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SUM, Shape Ur Mind

Report/Memòria

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Purpose

En la realización de este proyecto se ha querido demostrar al mismo alumno que es capaz de realizar un producto audiovisual en todas sus fases de producción y así mismo demostrar que se es capaz de concluir con éxito diferentes trabajos de postproducción como la integración de efectos visuales.

Finality

La finalidad que se ha perseguido al realizar este cortometraje de ciencia ficción ha sido la de crear un producto audiovisual apto para mostrar a diferentes empresas del sector y poder demostrar con él que su productor es capaz de desempeñar los diferentes trabajos que surgen de un proyecto igual o similar.

Object

El producto final que se ha obtenido con la realización de este proyecto es un cortometraje de ciencia ficción realizado íntegramente por el alumno y apto para ser presentado a festivales, en el caso de que se quiera, y presentado también como demo reel o parte de un demo reel.

Scope

El proyecto SUM, Shape Ur Mind tiene un alcance muy grande por lo que se refiere a ser presentado en festivales de ciencia ficción ya que cuenta con subtítulos en inglés y por tanto no existe barrera lingüística. Obviamente el alcance del proyecto se acorta debido a que es un producto centrado en un estilo de cine concreto como es la ciencia ficción.

Chapter 1 – Investigating the idea

Al plantear un proyecto es difícil saber qué tipo de proyecto se quiere desarrollar y, sobretodo, que medios son los que se quieren utilizar para llevar a cabo dicho proyecto.

En el caso del proyecto SUM, Shape Ur Mind no estuvo claro que tipología de proyecto se iva a desempeñar por parte del alumno hasta casi el final de tiempo concedido para presentar las ideas de proyecto.

La idea de crear un cortometraje de ciencia ficción era una idea que desde hacía ya mucho tiempo el alumno llevaba en su cabeza debido a que siempre ha pensado que en el cine español no hay producciones de cine tan comercial como pasa en el cine estadounidense, Hollywood. De esa necesidad por ver un producto creado en España que sea de una categoría más comercial, como lo es en su mayor parte el cine de ciencia ficción, y de la inspiración o referencia que creció al ver la película IronMan 2 surgió el primer planteamiento de proyecto.

Esos dos pensamientos fueron los que hicieron nacer la voluntad de crear un proyecto audiovisual en el que se mezclara acción real con la integración de efectos visuales creador íntegramente con ordenador y software 3D. Pero antes de empezar a pensar en una idea y un guión sobre el que desarrollar el cortometraje era necesario saber si el alumno era capaz por si solo de realizar dicho trabajo con éxito o de si en el tiempo que se le prestaba para realizarlo sería capaz de aprender las técnicas para poder llevarlo a cabo.

Fue aquí donde, junto con un proyecto paralelo llamado Disertation, se empezó a buscar información sobre las distintas técnicas que se han utilizado en el cine para recrear situaciones imposibles o crear efectos visuales para simular explosiones, transformaciones, etc.

Gracias al desarrollo de la Disertation, documento que se puede leer en los anexos, se aprendió sobre los diferentes tipos de efectos visuales que han existido a lo largo de la historia del cine y el método de aplicación que tienen así como de la evolución que han tenido tanto los efectos en sí mismos como la manera de realizarlos.

On the first group we will talk about the optical effects, which are known as visual or photographic effects as well. As their name show they are based on photo retouching, frame retouching if we are working with moving images, like we do in cinema. In the last years another type of doing things has been added to this group. This new technique is animation where all what is seen is created only with the computer, so we see CGI (Computer Generated Images).

The second group on which the FX are classified is known as mechanic effects, practice or physic effects. They have this name because they are effects executed during the recording. On this group is where operators use mechanical puppets, stage design, pyrotechnics and other effects like rain or fire. At the beginning this style of doing things was very rudimentary but nowadays a mechanical puppet can do lots of movements and his face can recreate very kind of human expressions.

On the third place we will talk about sound effects. This group contains all programmes sounds like growls, sounds of technology, etc. Despite popular belief, that thinks the sound effects have not been considered as a FX, it has to be said that most of the experts and operators confirm that a visual effect alone does not serve, it must be accompanied by a sound effect to complete his integration. This is because our brain only considers one thing as a real thing if we can see and hear it.

Finally the fourth group is the special makeup. Nowadays is considered that the most part of the FX are created using the computer and software designed for animation, but the truth is that the makeup is very important on any production. With makeup we can create from the face of a monster or a werewolf to a perfect makeup for an actress who is having a coffee on the terrace of a bar. There are some different types of makeup. A good makeup artist has to know everyone to do a good job in any production he does.

Una vez estudiados los diferentes tipos de efectos visuales existentes en la actualidad y sus métodos de realización el alumno concluyo que era capaz de realizar los efectos que tenía en mente o que tenia las herramientas para poder aprender a realizarlos y llegar a producir un cortometraje de ciencia ficción capaz de rivalizar con algunas producciones profesionales.

Chapter 2 – Developing the idea

Viéndose capaz de conseguir realizar un producto audiovisual que combinara acción real con efectos realizados con ordenador era momento de empezar a pensar en el argumento de dicho proyecto, su guión, sus localizaciones, sus actores… era momento de empezar a desarrollar la idea de proyecto para darlo forma y tener un primer esqueleto sobre el que trabajar.

SUM, Shape Ur Mind se basa en la existencia de una máquina capaz de hacer realidad los pensamientos de su portador.

Esta es la idea principal del corto y fue de las primeras ideas que se ocurrieron al pensar una posible historia para realizar un corto de ciencia ficción.

Con este pequeño boceto de idea y con un storyboard de un posible orden de acontecimientos el alumno llego a su primera estancia en la Universidad de Glyndwr. Fue durante esa estancia que el alumno empezó a darle forma.

El primer paso en el desarrollo de la idea fue pensar un pequeño argumento para saber de cuantos personajes iba a contar el corto, quienes iban a ser estos personajes y sobretodo ponerlos en una situación que necesitara de una maquina como la que se quería incluir y sobre la cual realizar los efectos especiales.

Como en el boceto de idea inicial ya había tres personajes principales se decidió seguir con este modelo y trabajar la historia de cada uno de manera independiente pero buscando siempre que cada uno estuviera unido a los otros dos para tener una historia principal que contar en el corto. Durante la primera semana se pensó en las distintas profesiones que podría tener cada uno de los personajes hasta llegar a decidir que habría un personaje que sería escritor, un personaje que sería pintor y un último que sería arquitecto. Al tener estas tres profesiones se concluyo que trabajarían de forma conjunta en un mismo estudio y que cada uno tendría un proyecto diferente pero todos con una misma fecha de entrega.

Sabiendo ya las características principales de cada uno y su profesión se empezó con el desarrollo de un hilo argumental. Los tres tendrían un proyecto que realizar pero todos tendrían problemas para cumplir con el plazo de entrega debido a su falta de inspiración y creatividad para dicho proyecto. Uno de ellos encontraría la maquina que les sacaría del apuro pero otro se aprovecharía de esta maquina para su beneficio personal hasta que tendría un accidente con ella y los otros tratarían de convencerle para que se deshiciese de la maquina.

El segundo paso fue pensar todo lo relacionado con dicha maquina ya que seria y es el objeto sobre el cual se desarrolla todo el argumento y se dan todos los acontecimientos del corto.

Era necesario saber que "poderes" iba a proporcionar la maquina a su portador y porque se los iba a proporcionar, también se tuvo que plantear el aspecto que tenía que tener para poder pensar en cómo los personajes interactuarían con ella y finalmente era necesario también decidir su procedencia con tal de justificar su aparición en la historia.

Todas estas cuestiones tuvieron respuesta durante la estancia en Gales gracias al trabajo constante por parte del alumno y los buenos consejos de algunos profesores de allí como Sonia y sobretodo Jim, quien día tras día cuestionaba las nuevas ideas con tal de obtener todos los puntos de vista posibles y hacer escoger al alumno la mejor versión de cada idea nueva que aportaba al proyecto. Se decidió que el único poder que la maquina concedería a su portador era el de dar formar a su idea. El aspecto fue un tema en el que el alumno tenía algo decidido desde un primer momento y que no se cambio ya que vio como un diseño totalmente valido para la maquina. El punto sobre la maquina en el que Jim ayudo mas fue el dar una explicación lógica sobre la procedencia de la maquina. Se contemplaron distintas opciones como el ser un artefacto extraterrestre, un artefacto de una antigua civilización, un artefacto del futuro o un invento contemporáneo a los personajes del corto. Era necesario conseguir alguna idea que diera sentido a

que Pedro, el escritor, la encontrara en el desván de su estudio. Así que finalmente se opto por la decisión de que la maquina fuera un objeto antiguo.

Con los aspectos principales de la trama y de la maquina ya decididos y resueltos se empezó a pensar en el guion literario del cortometraje, que se puede leer en los anexos.

Al tener ya un primer guion se pudo empezar a pensar en las posibles localizaciones que tendría cada escena y plantear las acciones que desempeñaría cada personaje en dichos sitios. El problema principal en este tramo del desarrollo de la idea fue que no se podía concretar unas localizaciones específicas dado que el cortometraje estaba pensado para ser realizado con acción real y toda la parte de preproducción y desarrollo se realizó en Gales. Esto llevo a que gran parte del trabajo realizado durante el mes de Gales fuera teórico y no definitivo.

Junto con el desarrollo de la idea y durante la estancia en Gales del alumno se trabajo en el storyboard del proyecto, en el animatic para dar tempos a la historia y poder ver una primera aproximación de los movimientos de cámara, de los efectos a realizar y de cómo interactuaría cada personaje con el resto y con su entorno. Finalmente y antes de finalizar la estancia en Gales se produjo un tráiler del proyecto realizado íntegramente con animación 2D y con una aproximación de cómo se habían pensado las localizaciones hasta el momento.

- Inspirations-references

There were three different reasons why the student wanted to do a project like this, a real action short film with the integration of VFX on it.

The first reason was because he thought and still thinks that the major part of the films that are produced on Spain are drama or author cinema. He does not understand why here in Spain people does not bet for a commercial movie like a Sci-Fi movie. There are some Hollywood productions that have special effects done here in Spain but here in Spain there is nobody who produces a good film with special effects. Today is not necessary to have an amount of money to do special effects with a big quality and with the previous example it is shown that here in Spain there are people with talent to do it. The student wanted to demonstrate to everybody and to him that it is possible to do a film with a low budget.

The second reason that makes him wanted to do a project like this was the film Iron Man II. Every time he watches this film he always get more captivated because of the holograms they made for Tony Stark. The student always dreamed on manipulate some of this holographic computers and by the time the only way he can do it is on a film. He wanted to know if he was able to do this kind of effects or similar.

And the third and the final reason why he wanted to do this project is linked to the script and not to the type of the project. He thinks that sometime he have had some great ideas for videogames, short films, films, music clips, paints, etc. but the 90% of the times he could not be able to transform his idea to a tangible thing. That is why he sometimes dreamed with a machine that makes this transition comes true despite you are good at painting or not. If you think in your mind the Gioconda but you are not a painter you probably never can paint what you are thinking but if you have this machine the machine will take control of you and you will paint whatever you think.

These are the three reasons why the student wanted and take motivation for doing this project by his own.

Fig. 2.1-1. Iron Man 2 reference.

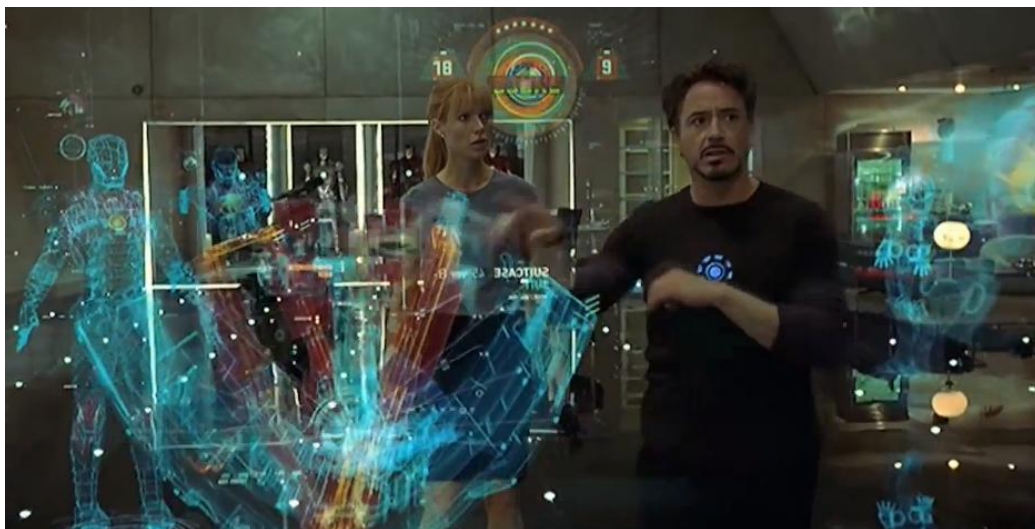Fig. 2.1-2. Iron Man 2 reference.

Fig. 2.1-3. Iron Man 2 reference.

- Story line

It's first time in the morning and there are 3 artists, a writer, a painter and an architect, who are working on the Art & Design department of the University. We can see the writer using a holographic computer and looking his agenda to know on what he has to work on today. Suddenly an alarm sounds and in front of he the message "*deadline, tomorrow 12:00pm*" appears. He gets nervous and talks with his friends about the deadline and all begin working another time on his projects although anybody have a good idea to do for his project.
Despite having worked for several days still don't have any good idea and they expend the most part of the day trying new ideas and new ways to work.

In the evening the writer decides to take a look at the old projects of the basement to get references for his project and the projects of his friends.
He is looking a drawer where there are some papers inside and behind them he founds a little box full of dust.
He look at the box with curiosity and after blow all the dust he opens the box and see that inside there's a machine that seems to have to be put on the head.
He begins to look at the machine and decides to use it to know what his utility is.
After an hour he has his project done and printed and he is surprised to have been able to finish it. He stays a while thinking until he decides to share the machine with his friends.

He goes where the painter is still trying to paint a good painter for his project and begin to talk about the machine and what someone could do if he wears on his head and starts thinking in a good idea.
The painter decides to wear it and she starts moving her eyes from one side to the other looking to the canvas and every time she goes from one side to the other a new line of the paint is painted on the canvas. After 45 minutes of moving her eyes she regains consciousness and begins to thank with the writer.
They start talking about the good of the machine and finally go to see the architect to help him with his project and to let him testing the machine. He wears the machine and suddenly a holographic cube appears in front of him. He touches and begins to model the building in which he was thinking but had not been able to draw on the plans. While he is modeling the holographic cube a model is becoming on the table.

At the end of the day the 3 artist have his own projects finished and are happy because they have a machine that helps him to transform his ideas on finished projects. It's time to go home and the writer and painter leave leaving the architect still working at his desk. When the architect realizes that he is alone he decides to take the machine and start using by his own benefits.
The first thing that he does is wear the machine so he begins to model a smart suit and when he finishes he removes the machine from his head, catches the suit and wears it.
Next morning he arrives at his study and the first thing he does is model a better mobile phone that the one he has.
Before ending work he wears another time the machine and begin modeling a 500€ bill to get a real bill for him.
The following day he wears the machine another time and begins to model a car key and when he goes outside the car is in front of the University.

The days go by and every new day he abuses more from the machine and uses for much time. Then one day he decides not to remove the machine from his head and causes the machine get in uncontrollably into his subconscious and start to develop all the ideas that he has. When the

machine gets possession of the body and the brain of the architect he begins to try to model all the ideas as much fast he can.

His friends saw him and at the first time he thinks that there isn't any problem but the architect is getting faster at every new idea he develops and every new idea is more volatile and intangible because the machine goes deeper on the architect's subconscious.

Finally the painter saw that the architect is in trouble with the machine and advise the writer to go with him to help his friend.

Because he is using his hands to model his own ideas and he is moving so fast they can't easily approach to the architect so he have to think a new way to remove the machine from the architect's head.

The room is full of models of the ideas that he has modeled and his friends have problems to walk around him while they are trying to bring help to his friend.

After some failed tries they finally find the way to remove the machine from the architect's head, he think that the only way to stop this rampage is to give to the architect more and more ideas to overload him and so get back to tranquility.

When they do it the architect falls down to the floor and rest unconscious. Then they begin to try to reanimate his friend but finally decide to get him to the hospital.

Few days later the architect wakes up on the hospital bed with his friends sitting on the sofa of the room waiting him to wake up. They begin to talk about what happens on the University and the architect finally asks what happens with the machine.

The painter says to him that they save the machine on the university because they think that who has to destroy the machine is the architect and he accepts to destroy the machine.

At the end of the short film we can see some shots of the architect burning the box but when he begin walking there's something on his coat that's still making lights.

Chapter 3 – Preproduction tasks

1. Script

Uno de los fundamentos que los profesores de Gales nos enseñaron y nos remarcaron durante toda nuestra estancia en Gales el primer año fue que todo producto audiovisual debe tener un pequeño guión. Debe tener un orden de acontecimientos pensado y estructurado para que el espectador pueda seguirlo y entender que lo que está viendo tiene una parte narrativa, que se le está contando algo aunque ese algo sea una simple idea.

Cumpliendo con este objetivo los profesores nos ayudaron a crear nuestro propio guión para los diferentes proyectos que teníamos. En mi caso, y como ya he explicado en capítulos anteriores, llegue a Gales el primer año con una idea de guión bastante definida pero que necesitaba de unas mejoras para poder convertirse en una historia apta para un proyecto final como el que se ha realizado.

La idea que traje conmigo de España hasta Gales el primer año consistía en 3 personas que necesitaban ayuda para poder completar sus proyectos. Para ello empleaban el uso de una maquina que entraba en su subconsciente y realizaba el proyecto controlando sus habilidades motoras. Esta primera idea era muy simple y le faltaba aun madurar, aunque por otro lado la idea se había quedado simple porque en un principio la intención del proyecto final era poner video a una canción, por tanto crear un videoclip a una canción de un grupo llamado Linkin Park.
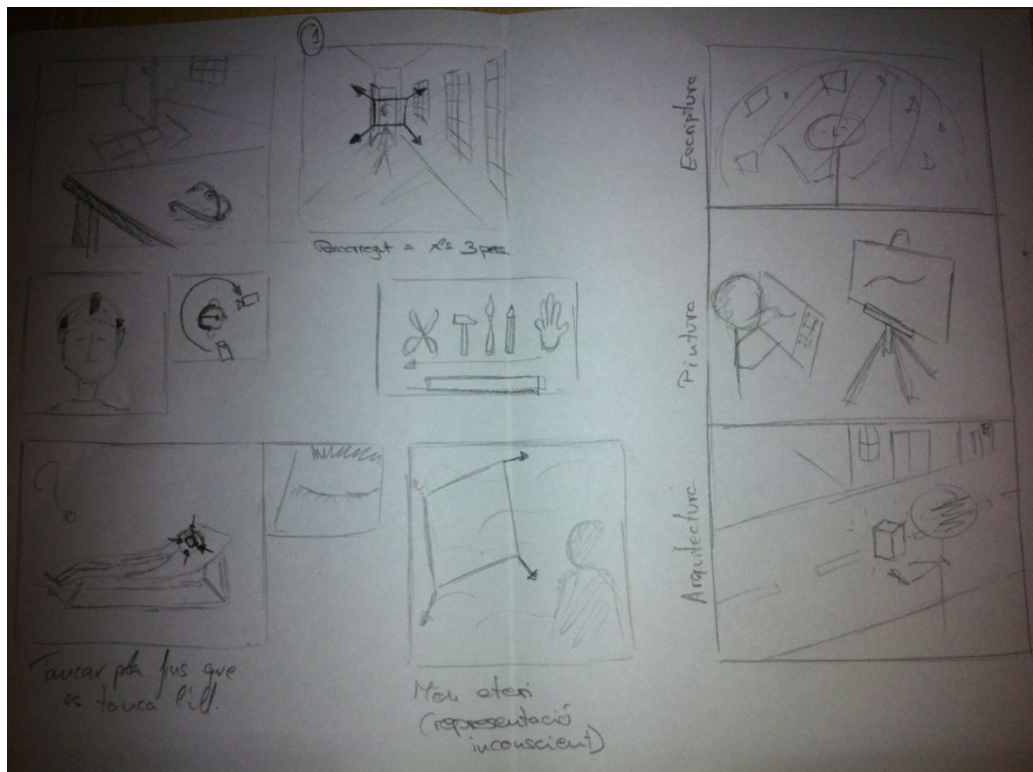

Fig. 3.1-1. First idea sketch

A pesar de tener una idea clara de cómo hacer cada escena siguiendo la canción finalmente se desestimo esta propuesta por parte del alumno debido a que al realizar este proyecto se tendrían que comprar los derechos de la canción y que finalmente el alumno prefirió decantar el proyecto hacia un producto más cinematográfico, como es el cortometraje.

Una vez en Gales se siguió trabajando con la idea que se había creado alrededor de la canción para darle un aire más cinematográfico y conseguir así un guión para un cortometraje de ciencia ficción.

On the first days on Wales the idea consists only on 3 professionals that have a problem with his own projects and use a machine to solve it. During the whole month the student develop this idea thinking about the 3 professionals, who they are, what kind of project do they have to do, where they are working and why, and obviously he had to think about the script. What will happen first, what actions they will do, who will do this actions, etc. All this questions was answered during the course in Wales by the student, but on some of them the student was helped by Jim who was always making the student think about all the possibilities before to choose one.

One example of this was thinking about the end of the short film where Jim asks to the student to think 10 different finals for the next day. It was very difficult to think 10 different finals for one project that you don't know how to end and it is more difficult to think this 10 different finals for tomorrow but fortunately the 10 different finals was thought and this makes more easier to choose one of them to work on it and develop a more credible and good final.

After 2 weeks working on the short film script the main action of the script was finished. On that moment the short film tells the story of 3 professionals, an architect, a painter and a writer, who have to finish his own projects but they does not have any good idea so one of them go for inspiration to the basement and there he finds a machine, this machine will help him finish his project and he will share with his mates. But one of these mates will go further and will use this machine on his own benefits. After using the machine for one night and one day the machine take the control of his body and the only way to save him from the machine is to overload him with ideas. This overloading leaves him in coma. After one month he came again to his work in order to remember what happen that day and his mates tell him that he has to destroy the machine.

This was the script after 2 weeks of working but there were some things that were not definitive because they depended on the location of recording.

During the year, from September to June, the script had some changes because of the actors or the locations, but all the changes done does not affect to the story and the main idea of the script. Some changes were changes like this character had to do this action but now will do another action that fits better with the location and still make sense with the scene and the script. The major part of these changes was done on the recording time so they are not reflected on the script.

2. Storyboard

The first storyboard that the student did was during the first stage on Wales and he only can imagine the locations because he does not know where he will record the different scenes of his short film.

Apart from that he does not know if he will be able to do the VFX that he had thought during the preproduction so he knows that probably some of the effects that he thought will change a little bit or it will be replaced by other effects.

Usually when people do a storyboard before recording time is because he will use the storyboard to know what he have to record and how. They follow the storyboard. But on this case the

student did the storyboard to have his ideas on a paper and from that paper have a guide to know what he have to do on the new locations he find.

The best way to work was to redraw the storyboard once the student gets the new locations in order to have the final storyboard without any mistake, but it was not possible to do because when he finally found the locations he does not have enough time to redraw the storyboard for the recording day.
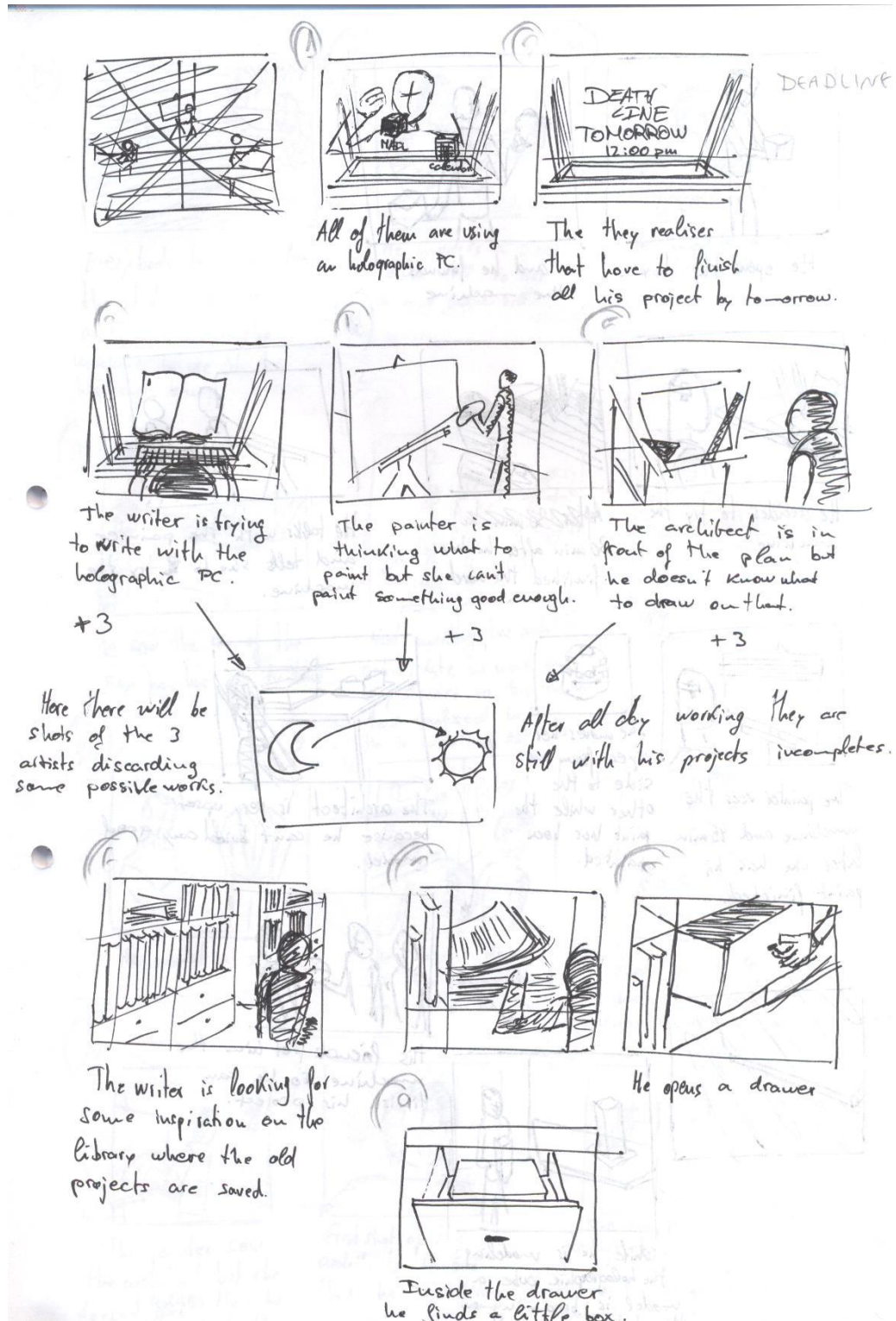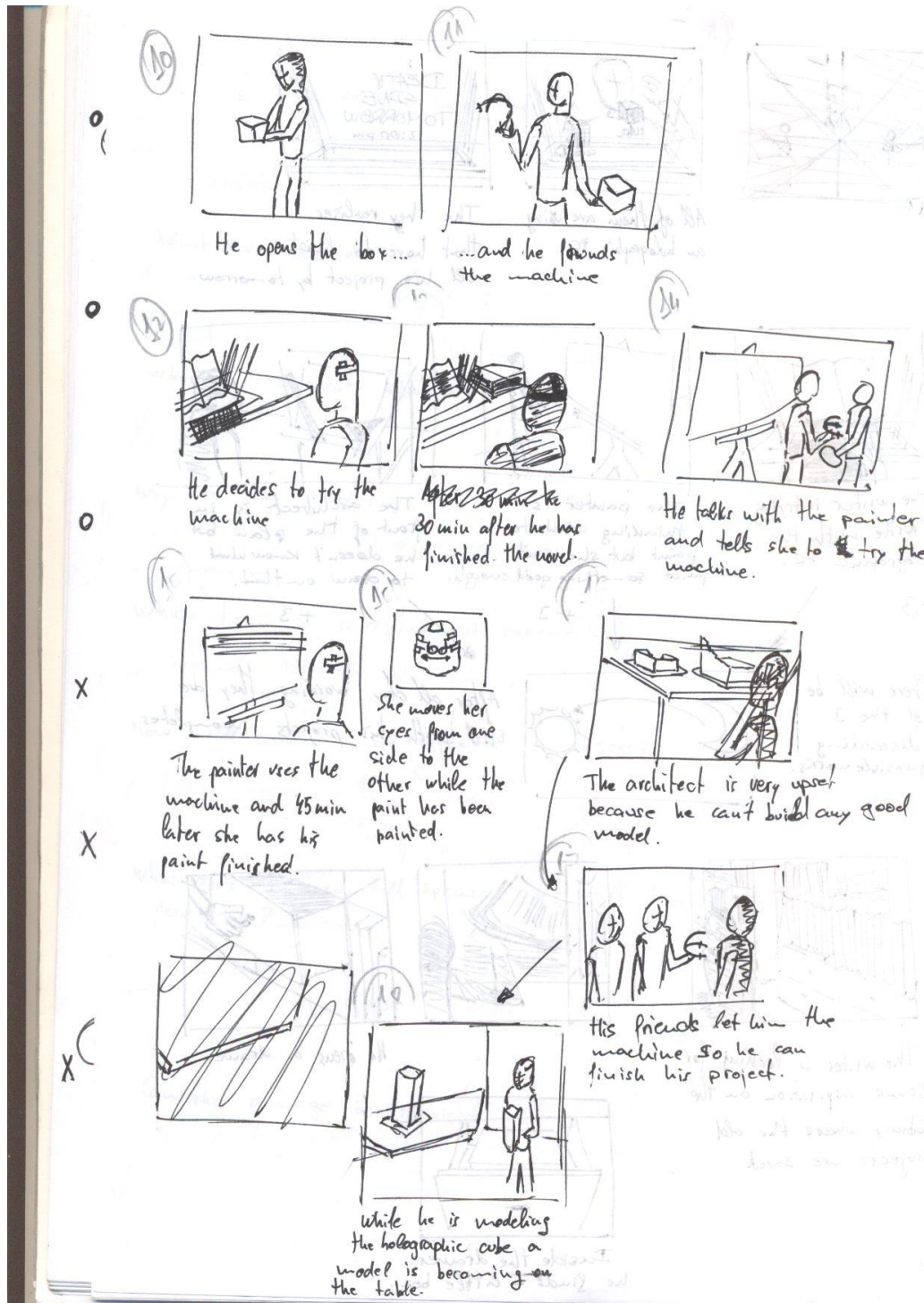

Fig. 3.2-1. First page of the storyboard.

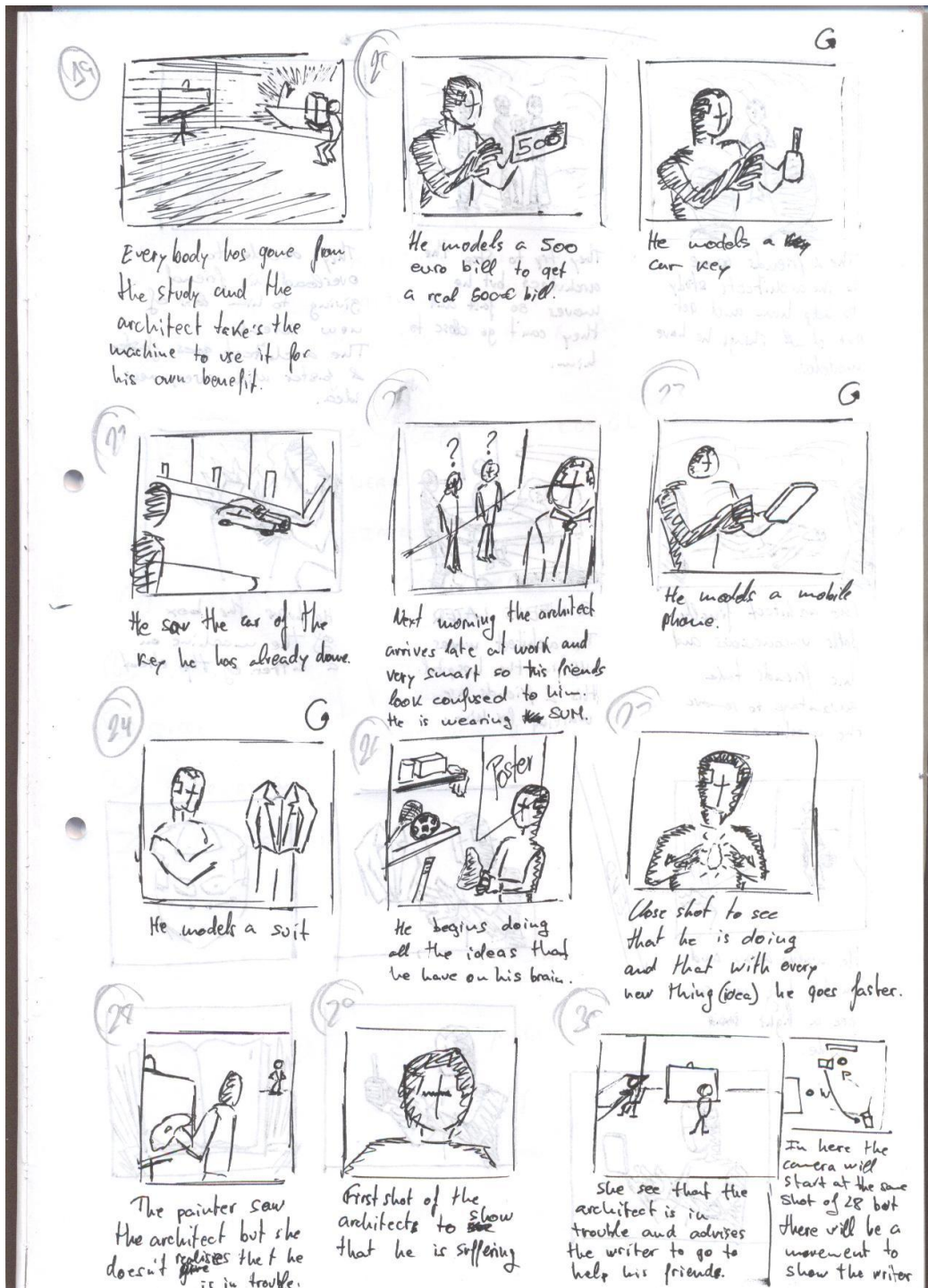Fig. 3.2-2. Second page of the storyboad
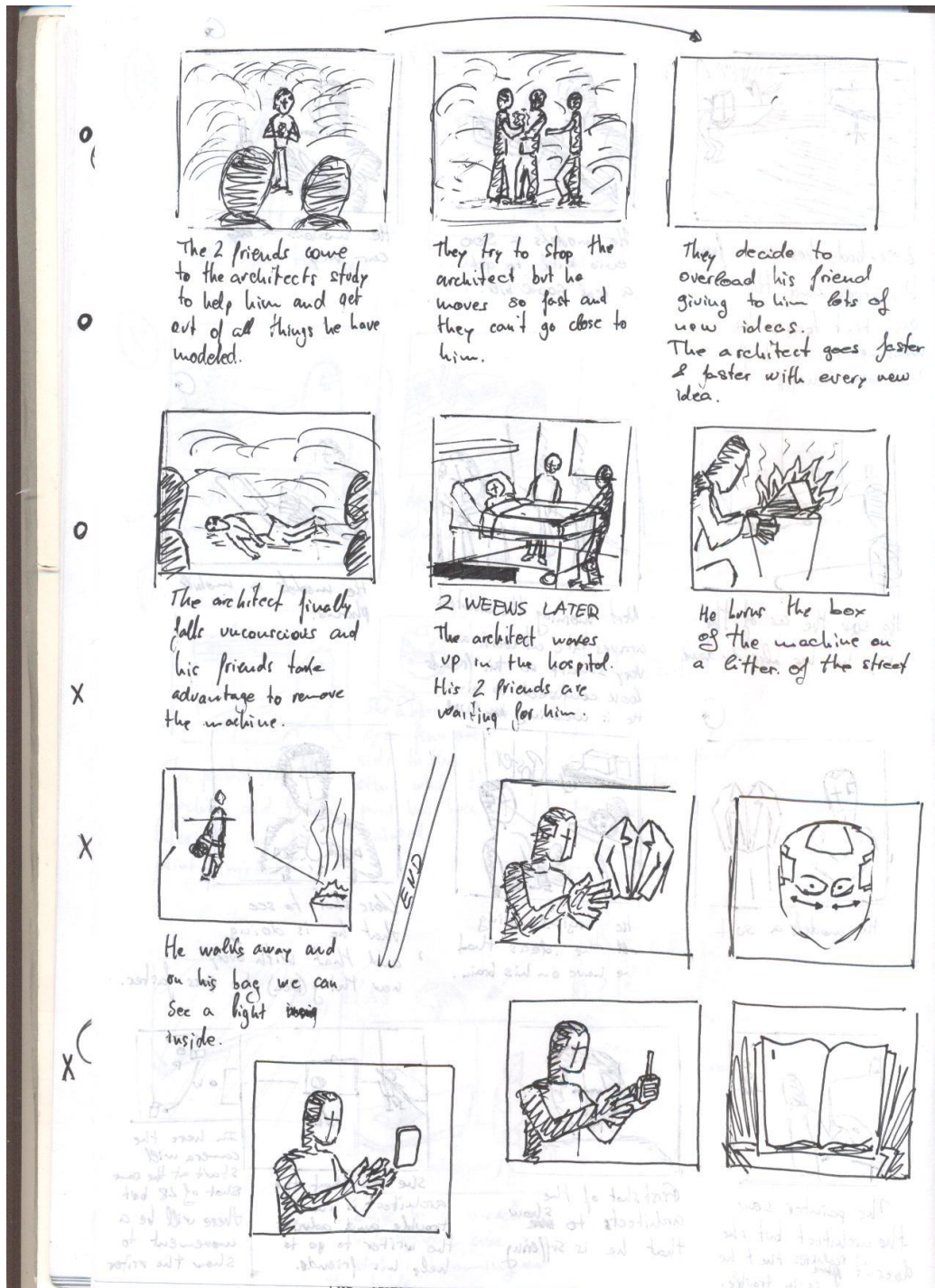
Fig. 3.2-3. Third page of the storyboard.

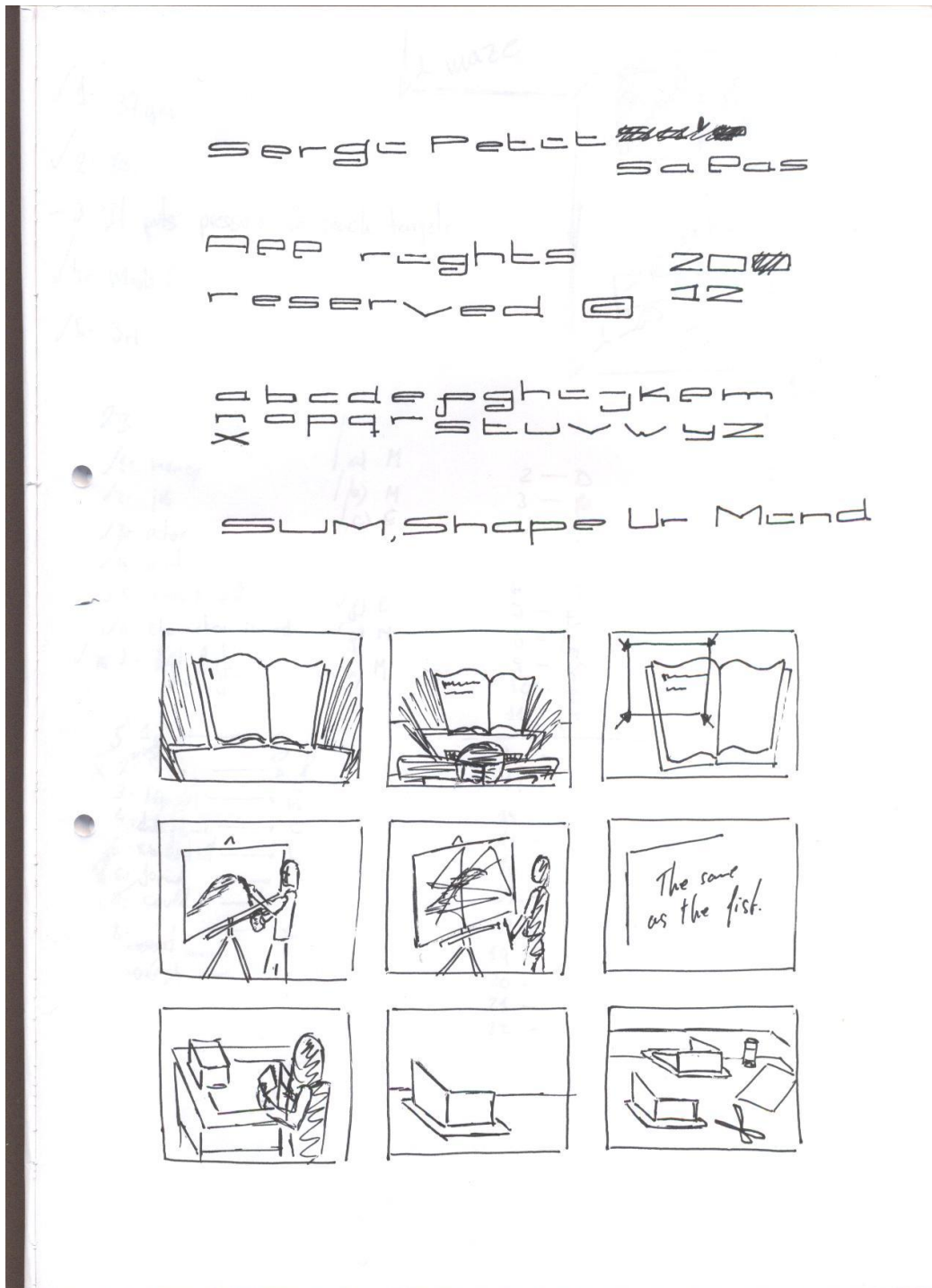Fig. 3.2-4. Fourth page of the storyboard and some more shots.

Fig. 3.2-5. Some shots from the other pages

3. Finding locations

When the idea was thought the main locations was thought as a old building that have a large corridor inside and a big room with large windows. But as said before the final script was different from the first idea and on that new idea this big old building does not fit enough so was time to think more new locations.

In order to think about the locations the first was to analyze the script and see how many different locations are needed by the script.

With the script finished this work was easy to do because on this script there was a description to know if the scene has to be inside or outside and if it was the office of Pedro, Ruben or Kim or the Hospital or somewhere else.

Work on searching the locations for the short film was a work that started on September 2012 because on the previous July the script was under developing on Wales so it was not possible to know the locations without seeing it.

Because of it is a low cost production the first idea was to use as a main stage the student house or a family/friend house but after thinking about this he decided not to show his own house for 2 reasons. He thought that if the 3 character of the short film are professionals and they are working on his projects they have to be on a studio, university, etc. but not in a house so definitively the his house or a family/friend house does not fit to his short film location search. And the other reason was because he does not want to show his house on the net if he could avoid.

He needs to find a location that seems a studio where 3 professionals of different arts can be working together, a location that seems the basement of this "studio", a location that simulates a hospital room or a real hospital room and some outside locations.

The easier to find was the outside locations because it could be any street and the other locations were a little problematic.

To record the scene on the hospital room the student wanted to use some rooms that are on TecnoCampus University but when he ask for information to know how to get license to record there they told him that it take a large time to do and he realized that when he wanted to record there will be Christmas holidays so it will be impossible to rent this location for that days. The second option was to ask to Mataró Hospital to lend him a room for 2 or 3 hours but he knows people who works there and they told him that on Christmas holidays is impossible. So finally he decided to omit the scene on the hospital room and record that scene on a different way on an outside location.

The main location was still under searching when one day a company with which the student had worked before call him to ask for some work. When he go to the company he take a look to his building and ask to they if they lend him make the recordings of his short film. For his surprise they do not make any problem and lend him record whatever he wants.

About one month before the recording day he had all the locations except one, the basement. He does not know where to find a basement because he wants a basement with book shelves and models or something that make think to the viewer of the short film that there they keep all their projects.

Despite all his tries to find a good location before the recording day this day came and he had to record all the scenes and leave this unrecorded.

At first this was a big problem because the idea was to record everything in one or two days but finally this was not possible because of some problems while recording and he had to leave unrecorded more than one scene.

With the first recording day passed he had to keep thinking and searching for the basement and finally he finds the best place. One of his friends, who were helping him as a camera man, had a basement on his house with book shelves, models, and some other things that will fit to his short film.

He asks for license to record there and the second recording day takes place on his house. There were recorded the basement scene, the outside scene replacing the hospital scene and the final scene that was also outside.

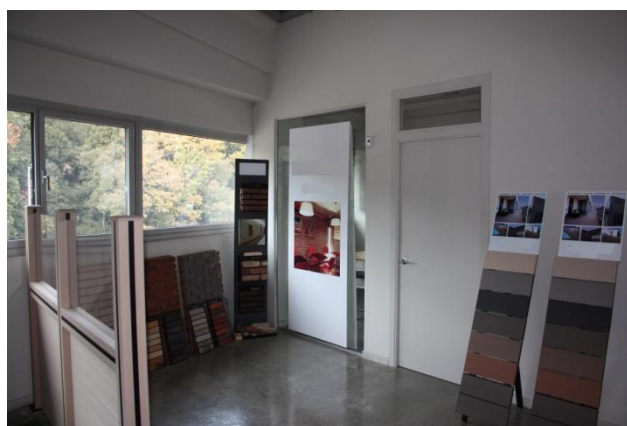Fig. 3.3-1. Pedro and Kim's table.

Fig. 3.3-2. Pedro and Kim's table.

Fig. 3.3-3. Ruben's office.

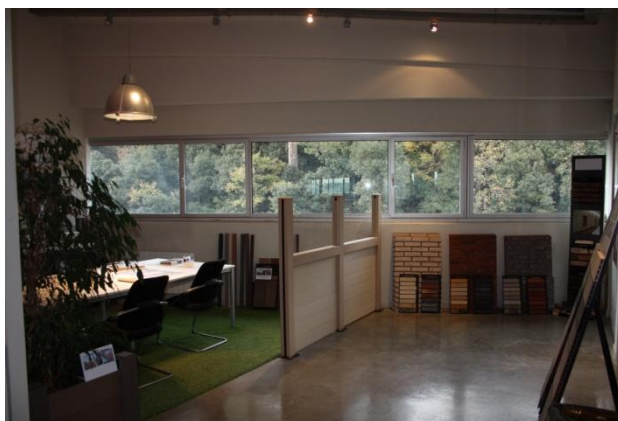Fig. 3.3-4. Ruben's office.

Fig. 3.3-5. Ruben's office.

Fig. 3.3-6. Hall.

Fig. 3.3-7. Hall.

4. Make contact with the work team

When teachers told to the students that they have to do a final project they told that it has to be an individual project but if there was a big project that has work for more than one person it could be a team project.

SUM, Shape Ur Mind is an individual project of Sergi Petit Salas but this does not mean that everything was done by him because the project needs at least another person who helps him in some cases.

This needs came because of SUM is a real action short film combined with postproduction effects and obviously every real action film need a cast to play the scenes and at least a camera man who record the scenes.

As is said on previous chapters there was one thing that the student had clear by the beginning and was that on the short film will appear 3 professionals, so he will need 3 actors who play this different characters in front of the camera. He always wanted to appear on a scene where he interacts with a hologram so he wanted to be one of the 3 characters but this was not a easy decision because if the student plays in front of the camera he does not be the camera man and he will have to search for another person/friend who work as a camera man and tell him how he want the shots, he will have to be the director.

When he finally decided to be one of the characters he started thinking about who could help him on the recordings and he finally asked to a class mate with who had worked before on other university projects, he asked to David Martinez.

The next step was to find the other 2 actors who will play the other 2 characters of the short film. This step was easy because some of the friends of the students had studied to be an actor or theater when they were young so they know how to speak and act in front of the camera. He asked to one boy, David Rubio, who had experience being in front of the camera because he worked on a Tv Show on Tv3, and to one girl, Clara Vallmajor, who had studied to be an actress and he acted on different theaters.

As he thought both David and Clara did not say no to participate on the project, they wanted to work on it to get more publicity of him and to help the student, one of his friends.

Fig. 3.4–1. David Martinez, camera man

Fig. 3.4-2. Clara Vallmajor, actress.

Fig. 3.4-3. David Rubio, actor.

Fig. 3.4-4. Sergi Petit, actor/director.

With the team created, 2 actors, 1 camera man and 1 actor/director, the new aim was to make a meeting to explain him everything about the project, give him a copy of the script and start arranging days to know when all the team will can record.

On that point the student had another time problems because one of the actors, Clara, was studying on Turin, Italy, so she does not come to get a meeting with all the team and every contact with she had to be by the net. This means that she only could be in Spain by the Christmas holidays and the recording day had to be during the holidays.

Luckily the other members of the team do not have any problem on recording during the holidays and the first recording day was on 29th of December. That day was recorded all the scenes were Clara had to appear because probably she cannot come to another recording day.

5. Finding material

In contradistinction to 3D animation this kind of project requires a searching of material, but there are different types of material that is needed on these projects.

The first material that the student had to find is the atrezzo, because on SUM, Shape Ur Mind there was one object that had to be build by the student, the machine.

That was a problem because on the mind of the student the machine was so clear and had a specific shape and color but when he tried to bring it to reality with a model the real version was not as good as the mental version. Ironically this would not happen if he could use the machine.

Linked to the machine he had to build his box.

To build the machine the student bought a firefighter costume helmet to use as a base and with a few steps he did the machine:

1. Step 1. Cut the helmet to make the shape of the machine.
2. Step 2. Mix glue with water.
3. Step 3. Cover the machine with the mix and newspapers retails.
4. Step 4. Paint the machine.

Fig. 3.5-1. Step 1.

Fig. 3.5-2. Step 2.

Fig. 3.5-3. Step 3.

Fig. 3.5-4. Step 4.

The second material that the student had to find was the recording material. That was more difficult because on the University they lend cameras and material to the students in order that they can make his short films and class works but on the planned recording day was impossible to find one camera so he had to ask to David Martinez, the camera man, that brings his camera despite that camera was not as good as the University ones.

The problem did not finish on the camera; he also had to ask to his brother that find the way to get some lights. He asked to his brother because he is Dj and he had worked with some lighting technicians who could lend some light to make the illumination of the sets.

6. Planning

In order to have time to do every part of the project by the right time and does not have any problems the student did a timetable of what he has to do and when. This time table was for one year because the project started at the first visit to Wales and finished one year later with the second visit.

Preproduction	Production	Postproduction
Jully – December 2012	January – April 2013	May – August 2013

Fig. 3.6-1. Timetable of the project

Obviously this timetable was approximately because when the project begun there were some little problems that made delay some days, or even weeks, some parts of the project.
The most important and planned part of the project was the postproduction because on that part lies all the important work of the project so the student had to plan very carefully every work day and every FX to have time to finish the project.

Fig. 3.6-1. VFX planning

Chapter 4 – Production tasks

With the preproduction finished the next step of the project was to begin the production of the project. This project is a real action short film combined with 3D effects done with computer software, this means that there are things that will be created entirely with computer and other that have to be recorded with a camera. This is why the production was one of the most meditated because if one of the character had to interact with an holographic system they had to know how will be this holographic system, how will it react with his movements and what he have to do with it. A part of the actor the camera had to know where the holographic system will be placed to know how to record the scene because on that moment he was recording the actor who were acting in front of the camera but he was recording the holographic system as well despite this system was not there. On those moments the storyboard was very useful to know where the actor has to stay and where the FX will be.
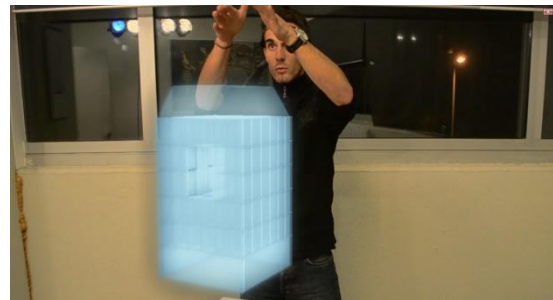

Fig. 4-1. Shot without FX.

Fig. 4-2. Shot with FX.

As on the preproduction the student thought about all the project and how will be the scenes, how movement will do the actors, how will be the FX and the tempo of the short film on the production the major part of that preproduction had to be created.

SUM, it's a real action short film and these means that one of the most important parts of the production is recording the scenes with the real actors, but this work is not the unique work that forms the production as most people think. On the production there are more many tasks to do apart from recording. Obviously the first is that, you cannot start working on the scenes if you do not record before, so the first thing the student did on production time was record all the scenes of the short film.

When all the scenes were recorded started the real production because once the student had all the scenes the next step was to edit the short film to know what shots are the best and will be on the final short to know where the FX have to be created. To do this montage the student had to find music for the short film because he wanted to make a montage linked to the music.

Once the whole montage was done the last step of production took place. The last step was to make a color correction of every scene to give the same color at all the short film. This was more difficult thant the student had expected because he had to use a new software that he does not used before and he had to learn how to use it and how to do the color correction that he wants for his short film.

- Selecting the recorded material

  With all the material recorded the next step was to classify every shot and choose which will be on the final montage and which will be discarded.
  This was a tedious work because there was one week watching every single scene for many times and finding the differences between one and the other in order to choose the one that fits better with the montage that the student wanted to do. But for the other hand there were some scenes that were humorous because of the failures of the actors or the camera man

- Finding music

Once all the shots were selected and the bad ones were discarded was the moment to search for the music to could make the montage linked to the music.
The first idea was to use a song of Linkin Park but after thinking about it the student discarded this option because if he wants to use this song he will have to buy the rights of the song and on the final idea for the project the short film was longer than the song so he had to buy more songs to put it on the short film.

Buying a song for one project is not to expensive but there are more ways to have a good song for the project.

The way that the student chooses was to look on some websites of free music, websites where the music that they provide is free of rights and someone can use it for everything they want if he does not take benefit of it. One of the best websites and the only one he used was www.incompetech.com from where he uses one of the songs of the short film and the song of the trailer. This website contains free rights music, the only right that the music have there is the attribution right, if someone want to use the song he will have to say where he find the song, where the song was created.
He does not use more songs from that website because the songs does not fit enough to what they want for the short film so he started to find another way to get music free of rights to use on his project.
One day he tried to put on the search engine of YouTube the key words "royalty free music" and he finds a YouTube channel called TeknoAXE. The owner of this channel upload a huge amount of songs sorted by category and everyone is free of rights. Every song is uploaded as a video but he give on the description of the video a link where anyone can download the song in a good quality and although he writes a message.

This track is Royalty Free and is free for anyone to use in YouTube videos or other projects, whether monetized or not.

On that YouTube channel the student find really good songs that do fit with the idea of what they want to do with the short film and give to the short more rhythm and also reinforces the emotions that are wanted to give with the different shots done.

Using different songs of YouTube channel TeknoAXE and one of the songs from www.incompetech.com the student had all the material, the video and the audio, to start with the montage of the short to know how the rhythm of the short will be, how long it will be and to have a premontage of the short with which to start working on visual effects (VFX).

- Editing

Following the timetable that the student made at the starting of the project, the production time had to be over on April 2013 so if he wanted to be right on time he will have to work harder, because searching the music was longer than he expected.
Luckily the only things that he had to do to finish the production of the short film were the montage of the whole short film without any VFX and the color correction of that montage.

The first task was an easy task but requires time. Was an easy task because the videos he had to use for the montage he had already selected and he also had the music. The only thing he had to

do to make the montage is choose the order of the songs according with the actions that happens on the short film and make the montage using the video clips selected.

- Color correction

With the montage done the next step was to make the color correction to get the same color at all the short film. This color correction was done with DaVinci Resolve Lite, one of the best software for do a color correction.

The student wanted to follow the timetable but he cannot complete the term with the production part because when he started with the color correction he had to learn how to use DaVinci Resolve so he need 2 weeks approximately to learn how to do a nice color correction, how to save it in a good quality and every single tip that the software have. Even thought when he begun with the color correction of the short film he had some problems because he does not thought that the color correction had to be done scene per scene, he does not do a color correction of all the short film because the illumination of every scene is different and if you do the correction of all the short and you put up the light on one scene, the light of the whole short go up and you can have a scene with too much light.

This was a setback because he had to do the color correction scene per scene and added to he does not manage the software as good as he wanted he get some scenes with a similar color correction but not the same. He expend more time that he expected working on the color correction and the final result of that work was not as good as he thought when he started with it but was his first color correction done for one big project like SUM, Shape Ur Mind and he thought was good enough for one project of this characteristics.
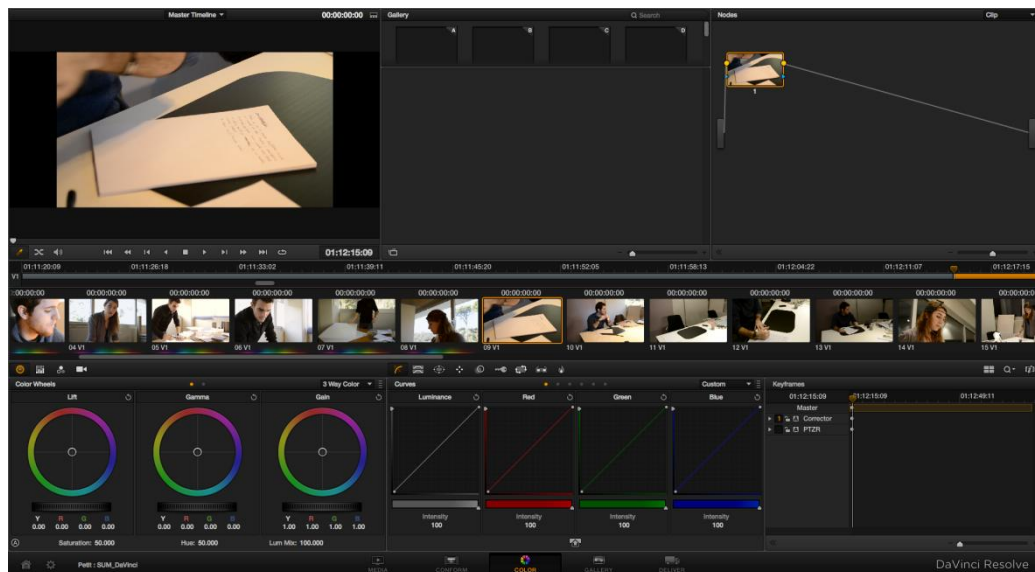

Fig. 4.4-1. Using DaVinci Resolve Lite to make the color correction.

Chapter 5 – Postproduction tasks

After several months working on the project finally the student had reached the postproduction part of his project. For him this was the most important part of the project because the objective and the main reason why he did this type of project were to create and integrate visual effects on a real action movie.

When he started the project he knew that he would have to learn how to create realistic visual effects and how to integrate them into a real action scene. To learn that he started watching video tutorials on YouTube and other websites like www.videocopilot.com. But where he learned the major part was on MadCenter, an audiovisual school in Barcelona where he did a Cinema4D course and a Cinema4D advanced course to know how to run the software. On the main scenes of SUM, Shape Ur Mind appears some VFX and on these scenes the VFX are created with Cinema4D.

Cinema4D it is real good software to do 3D objects and the student used this software to do the main effects of the short film but there are some other effects that are done using another software. This other software has been used also to integrate all the effects on the scenes, we are talking about Adobe After Effects CS6 and also the newest version Adobe After Effects CC.

- Editing the effects

    On the short film there are 9 VFX.

    1. VFX 1

        The first effect that appears on the short film is when the writer, Pedro, turn on his computer to take a look at his mail.
        When his slides his hand over the computer this turns on and start making a green light forming a grid from where the icons of the operating system appear. When the computer is loaded Pedro start searching the icon of mail and when he finds it he open the application. A list of 3 mails appear and he start rolling the list searching the mail that he wants to view, once he finds it he opens with a click on the name and with his two hands he make it bigger.

        Every single part of this effect has been done using Adobe After Effects CC. The first step to create this effect was to create the green light which indicates that the PC is on. This light starts with and opacity of 0% and in a few seconds turns to 100%.
        After doing this light the next step was to create the grid with a preset of the same software. It was helpfully to have a preset that do a grid where you want but this creates a problem because if you create something with After Effects and you want to integrate it on the scene normally you have to do a mask to place it on the right site and to put elements like a hand in front of what you had created. Because of the grid was created as a preset of the program the mask does not affect him so what the student did was to export the video without any effect and put it on upper layer to make the mask on it and hide the grid where he wanted. This was done because the two hand of Pedro, the character who is interacting with the computer on these scenes are in front of the computer so they have to hide the holograms created by the computer.

        With the two things that indicate that the computer is running the next step to create the effect was to create the icons of the operating system. The icons where from internet and were put with a green margin. They were animated appearing from the grid and moving when the hand of the character slides him to one side. This animation was really difficult to do because the three icons have to move at the same time and with the same

movement everyone when the hand of the character moves one of them. The student wanted to simulate that the three icons was making a circle so he make bigger the one that was on the center and the other ones make smaller and with a little rotation to simulate that they are following a circle.

When the character makes click on one of the icons, the mail icon, the three icons disappear and appear a list with three mails. The character start making the same with this list as he had done with the icons but now the mails does not roll from right to left, they roll from down to up. The mails are another time a green margin and some typography that indicates who had sent the mail and the subject of the mail.

Finally the character finds the mail that he was searching and makes click on it to open. This makes that the three mails disappear and on the same place a big green margin appear with the mail. The character moves his hands to the margin and makes it bigger as he catches the mail and stretches it.

The most difficult and tedious part of this effect was to do the mask frame by frame of the two hands. Because After Effects CC has some plug-ins that makes the mask automatically but on this case the student cannot use it because at ever frame the shape of the two hands was different and the plug-ins did not recognizes so good, so he had to do the two mask frame by frame for his own.
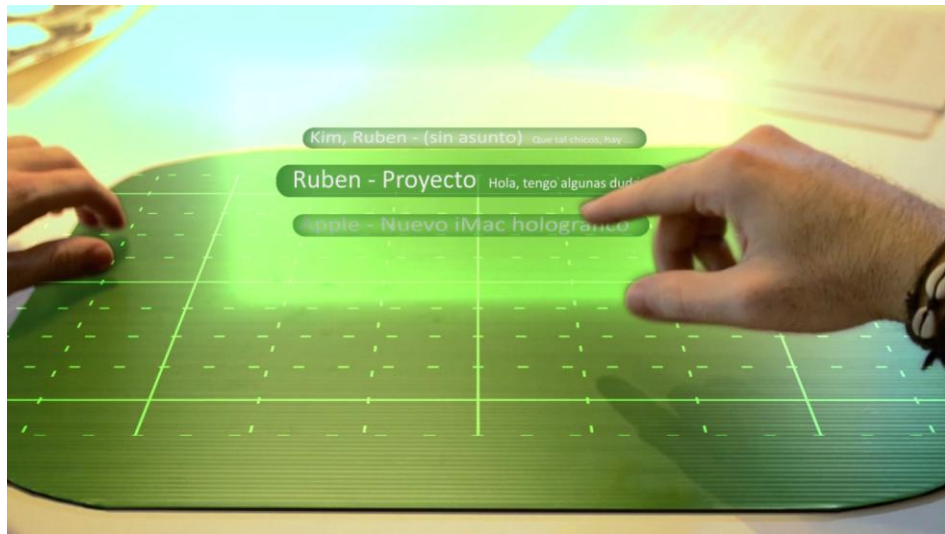

Fig. 5.1.1-1. Video without VFX.

Fig. 5.1.1-2. Video with VFX 1.

2. VFX 2

This effect and also the other ones where the machine is used had been done using Adobe After Effects CS6. The work flow followed to do these effects are the same because the machine is always working on the same way so in every scene that the machine appears these effects was done following the same steps.

The machine has two parts, one that is the rigid body, which goes on the head of the person who wears it, and the flexible part, that goes on the forehead.
While the machine is running the two parts generate a blue light that moves making circles on the head of the person who wears it. This light has an arrow form when it is on the rigid part of the machine and it turns in a square form when it is on the flexible part.

To do this effect was needed two different layers. On one layer was created a big blue solid that reaches all the head of the character and with a mask, that has the arrow form, was hide all the part that does not have to be shown. This mask was animated following the movement of the character's head in order to make the light be on the machine at every time despite the character moves his head or not. After doing the animation of the mask, animation that was done frame by frame, the student adds an effect of the software that give to the light blur. This was made to simulate that the light was there and that this light make real light.

To do the light of the flexible part the steps were the same as the rigid part but the difference as that the shape of the mask was not an arrow, now the shape was a square.

Fig. 5.1.2-1. Video without VFX.

Fig. 5.1.2-2. Video with VFX 2.

3. VFX 3

On the 3rd effect of the short film the student had to divide it on three different parts and every part was done with After Effects CC.

The first part was the blue light of the machine. To do this part the student followed the same steps of the VFX2.

The second part was to make the holographic PC and every new part of it. On this effect the character uses his computer to write his project and while he is writing he is wearing the machine on his head. To white with the computer appears a keyboard of the grid and the character uses it to write directly to the paper he had on the table.
As on the first time he uses the computer the student had to do the green light and the grid, that create the same problem with the preset making the student export the video and put it on upper layer to hide the grid.

The new parts of the computer he had to do was the keyboard that appear like the icons on the VFX1 but this time the keyboard do not appear on straight line but appear with a curve to the hands of the character.

This keyboard was downloaded from internet, it was a png file free of rights, and with Adobe Photoshop CS6 the student give to the keyboard a green light with some blur to make it shiny. After that the student import to After Effects and made the animation of this keyboard.

This effect was also difficult as the VFX1 because the student had to do 6 different masks, one for every hand on the 3 shots of the scene. All of these masks was done frame by frame because of another time the shape of the hands was different in every single frame.

The third part of this effect was to create the illusion that the computer was writing on the papers that the character had on his table, beside him. This part of the effect was more easier than the second part because when the scene was recorded the paper was already written so the only thing that the student had to do was to put a blue light over the paper and make it move while the character was writing to make it seems like it was written by himself. This blue light over the paper was the same characteristics than the light of the machine.

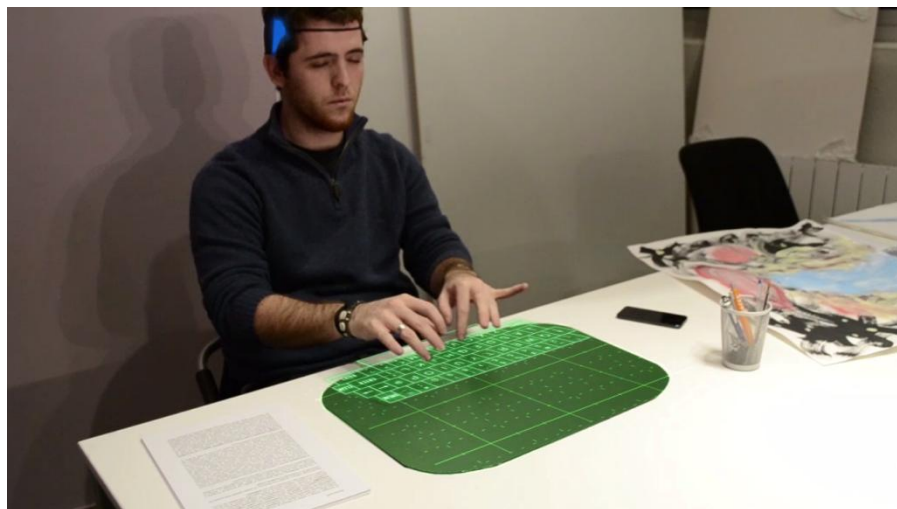Fig. 5.1.3-1. Video without VFX.

Fig. 5.1.3-2. Video with VFX 3.
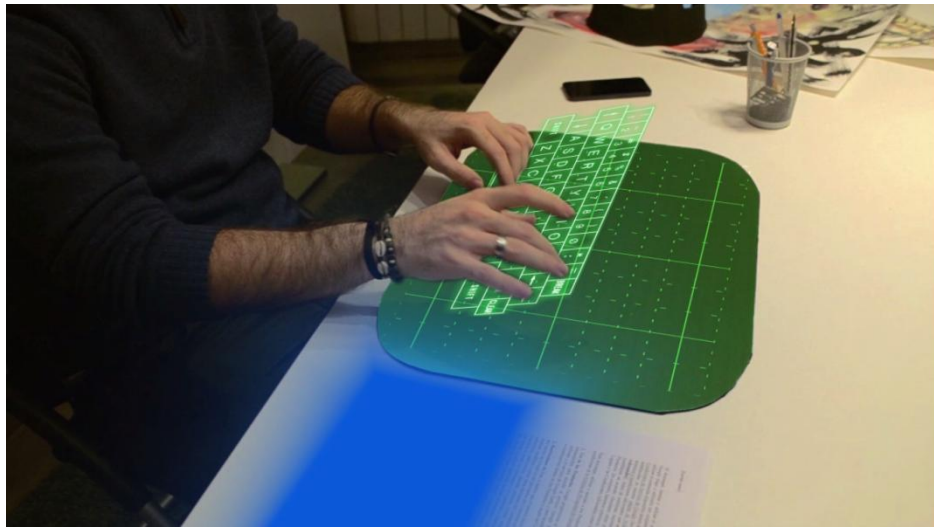
Fig. 5.1.3-3. Video without VFX.

Fig. 5.1.3-4. Video with VFX 3.

4.   VFX 4

On this effect the student used only After Effects CC and divided the affect on two parts.

The first part of the effect was to do the lights of the machine following the same steps of the other effects done. This effect was the first effects that the student did and on that part of the effect he tried to do the movement of the blue light of the machine with tracking software. He tried the tracker of After Effects CS6 and the tracker software Boujou but he does not find the way to do what he wanted for this effect and finally he did the movement of the lights animating it by him.

And the second part of the effect was to do the printing. On this scene Kim, the painter, is wearing the machine to paint a good painting for his project. When she wears the machine she starts to move his head from one side to the other like if she was a printer and with her eyes she paints on the blank canvas. To do this part of the effect the student had used one layer where he puts a painting, that he did with Cinema4D, over the blank canvas and animate a mask to make it seems the painting were been printed by

the movement of Kim. He also put a blue shining square to show where the character was looking at and where she is printing.

Fig. 5.1.4-1. Video without VFX.

Fig. 5.1.4-2. Video with VFX 4.

5. VFX 5

On the VFX5 the student combined more than one software to create the effect. As other effects this effect can be divided in three parts.

The first part was another time the blue light of the machine, this part was done in every effect where the character uses the machine and the way to do it was always the same. Create the blue solid, make the mask with the correct shape and animate the mask to make the light move with according to the head's movement. This type of effect was done with Adobe After Effects CS6.

The second part of VFX5 was done with Adobe Illustrator CC. This part was to create the plans of a building. On that scene the architect was trying to do the plans and the model of a building for his project and using the machine he will complete his project. While he is moving his hands creating the model as a 3D hologram on the table he has the blank papers where the plans begin to draw.

And finally the third part of this effect was to create the building on 3D and animate him to make the illusion that is being built with the movements of Ruben, the architect.
To do this building the student used Cinema4D where he first made the entire building using some properties of the software and when he finished the building he animated the different parts of the building to show as the building was under construction.
So the modeling of the building and the animation was done using Cinema4D, once this two parts was done the student exported the building as a sequence of png files with an alpha channel, to get the transparency, and put all this sequence on a Adobe After Effects CC layer to make the integration of the building on the scene with the real action.
Once on After Effects he upgrades the building using effects of After Effects to make it shinier and to give a nice color.
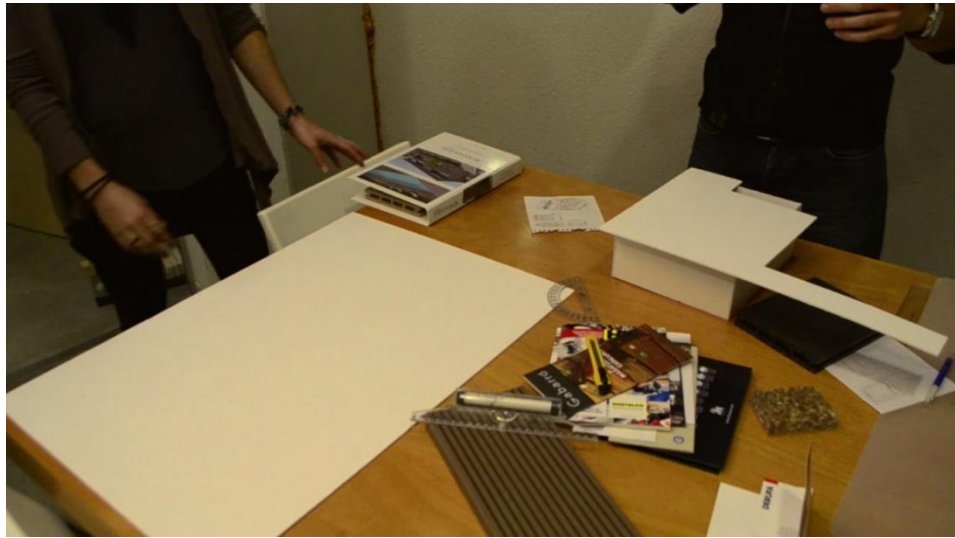
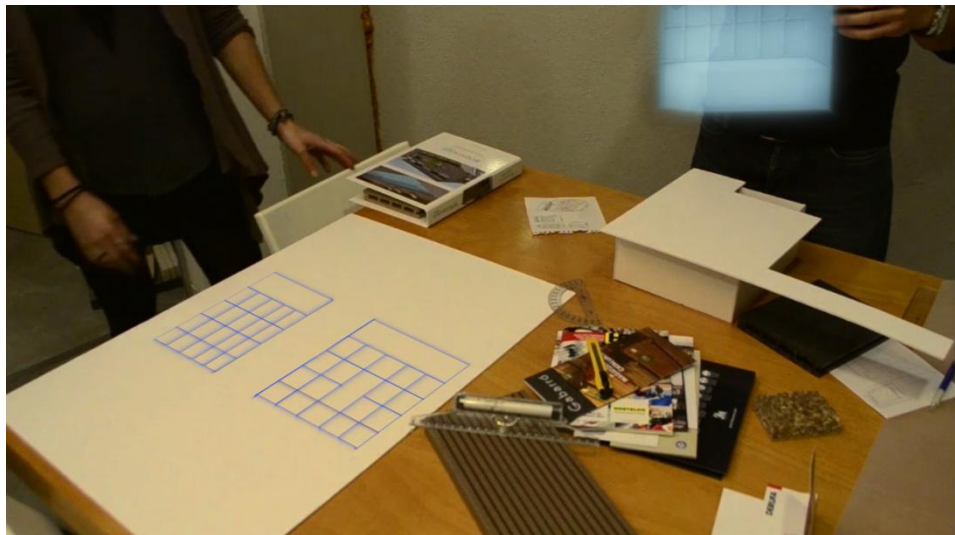Fig. 5.1.5-1. Video without VFX.

Fig. 5.1.5-2. Video with VFX 5.
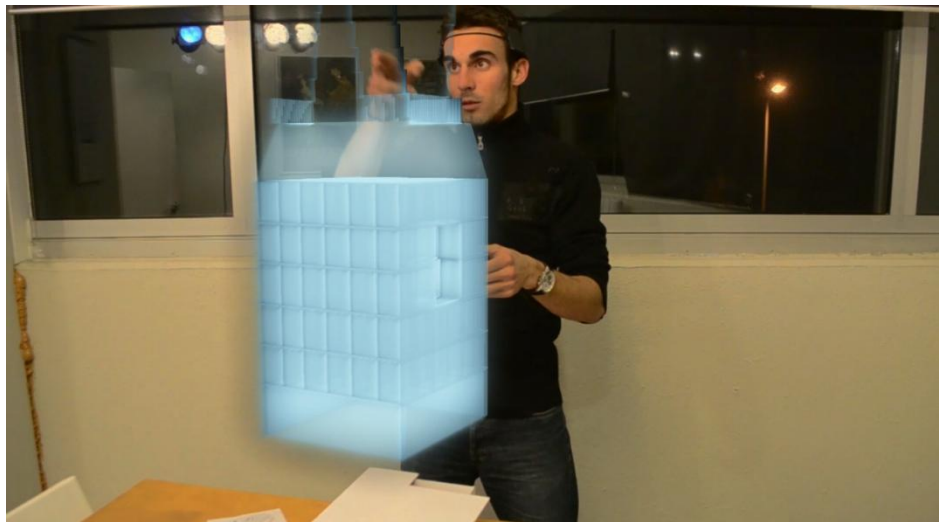
Fig. 5.1.5-3. Video without VFX.

Fig. 5.1.5-4. Video with VFX 5.

6. VFX 6

The first idea to do this effect was to make the architect imagine a 500€ bill and with the machine models it but doing the effect the student realized that if he had to put the 500€ bill between the hands of the architect people who watch the short film would not see that what he is doing is a 500€ bill. So at the last time the student makes shine the numbers of the bill.

This effect was created using Adobe After Effects CC and Cinema4D. The first step was to create a rectangle using Cinema4D that have the same dimensions of the 500€ bill. Ruben, the architect, was moving his hands to create the bill so this rectangle had to move according to Ruben's hands. This means that the student had to animate the rectangle according to the movements of Ruben. When Ruben finishes the model he throws it to the left so the student had to animate the rectangle to move from one site to the other and to disappear while it was moving. After doing all the animation he imported this rectangle from Cinema4D to After Effects to make the integration and add   some   more   effects   to   make   it   more   realistic.

When Ruben finished the shape of the bill he started to draw the numbers on the bill moment when the student type the three numbers on the bill making him shine and putting a real photo of a 500€ bill. That photo was downloaded from internet and retouched with Adobe Photoshop CC, as the keyboard of VFX3, to make it shine and to give him a blue color.
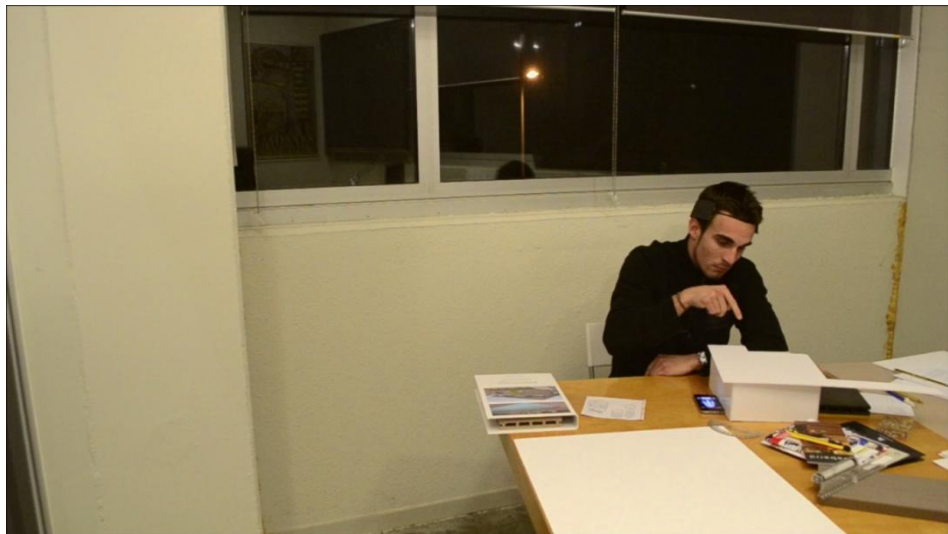

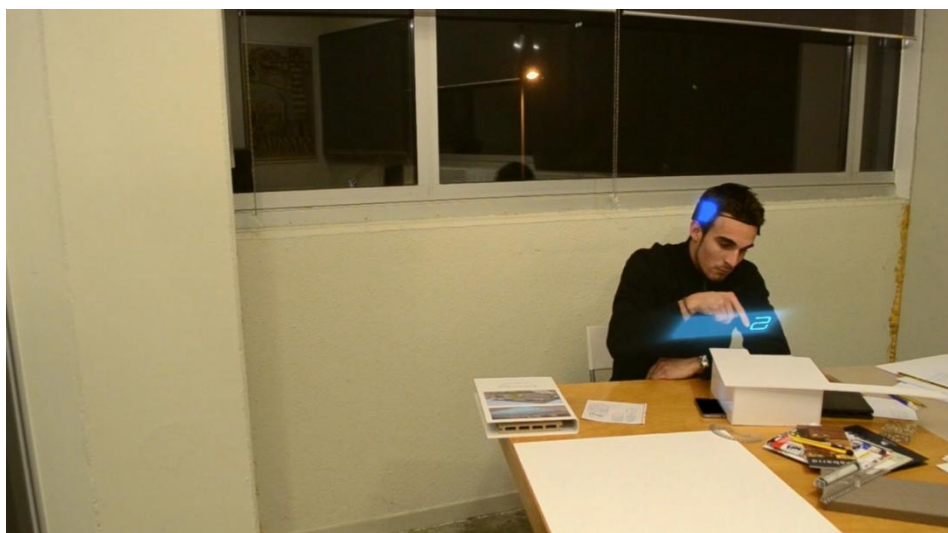Fig. 5.1.6-1. Video without VFX.

Fig. 5.1.6-2. Video with VFX 6.

7. VFX 7

This effect was one of the first effects that the student did but was one of the last to be finished.

On this scene the camera makes a movement from right to left showing the objects that during the night Ruben, the architect, have been modeling. To emphasize the objects on this effect the student used Adobe After Effects CS6 and his tracking software to add over every important object his name.

Using this tracking software the only thing that he had to do was to make it calculate the movement of the scene and after chooses some points, normally with three points it is enough. With the movement calculated and the points selected the only thing that he had to do was to create the names of the object using the text tool and link these names to the layer of the movement. This means that one layer of the project had the movement of the camera and everything that links there will move with the camera. This is really hard to understand because when a text is linked to this movement the text will be still on the same place despite the camera is moving. So when we say that something has the movement of the camera we want to say that this object recognizes the camera movement and interacts with that movement as a real object. If you record from one side to the other of your desktop the computer will be at every moment on the same place of the desktop but not on the same place of the shot. That is what a camera tracker does, make the objects created on the computer act as a real object of the scene.

The student uses this tracking software to add the name of some objects over this objects but he cannot finish the effect until he had the right typography for all the short film and that was one of the last things he did, search the typography. This means that he had the effect done and finished but with the wrong typography until 1 week before the deadline.
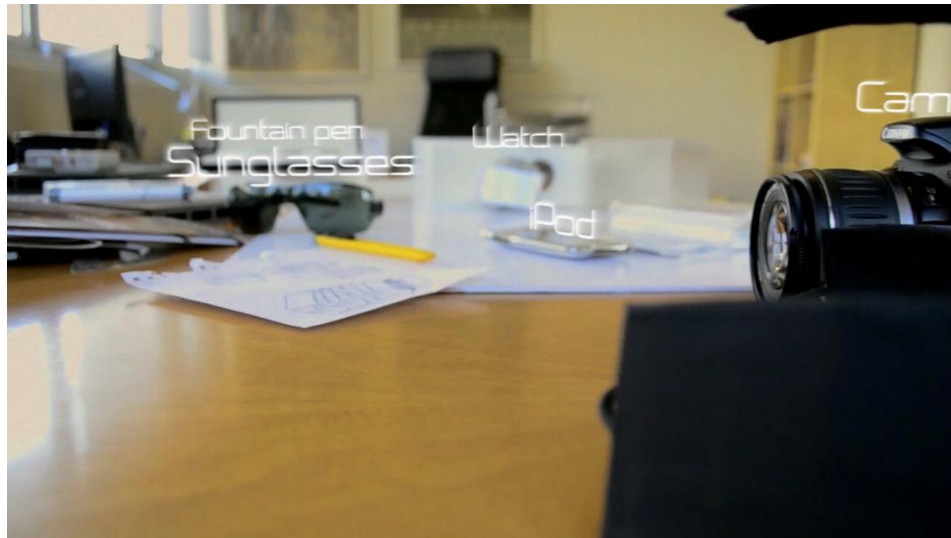

Fig. 5.1.7-1. Video without VFX.

Fig. 5.1.7-2. Video with VFX 7.

8. VFX 8

VFX8 was the effect that took more time to be done and that was more difficult to do. That was because on that effect appear 6 different models that had to be animated individually and integrated individually.

On this scene Ruben had been using the machine for all night long and now the machine is taking the control of his body. His mates, Pedro and Kim, realizes that something wrong it's happening and they try to help Ruben. While they are trying to came in on Ruben's office Ruben is still doing models and models of different objects that he has in mind and with every new object he goes faster. His body is reaching his limits but his consciousness is on the machine hands and the machine will not stop unless someone change the events.

To do the models that Ruben is making the student make a search on the net to find some different models of objects like a computer, a car, a Nintendo, etc. All of this models were free of rights so he can downloaded from the net and use on his project without any problem. He thought that his project was a real action short film with integration of VFX so the modeling part of some objects was an important part but not the most important and following this thought he decided no to do the models by himself because the final result does not be as good as if he download them from the net.
When he had the models from the net he animated them using Cinema4D and give to them transparency and a little glow. This steps were made for every model and when everyone had his own animation following the tempos of Ruben's hands he exported individually as a png sequence with an alpha channel. On some of them he also exported a movement channel to get the glow of Cinema4D and the blur.
Once he had all the models exported he imported on Adobe After Effects CC to make the integration of every model.

To make the integration the student put the png sequence on a After Effects layer upper than the video and move the model to make the animation coincide with the video and Ruben's hands. After putting on the right place the next step was to make the model

more credible adding to it some color effects, some blur to make it shine and to get more powerful he decided to duplicate the layer.

There was one of the models that was created by the student because it was not a simple model. That model was an energy ball created with Cinema4D that appear from the inside of the last model he creates, the car, and represents the intangible ideas that his mates had said to Ruben. This model is the last one he does before the machine gets overloaded by the ideas.
The steps to do this model was the same as the other but on this case the color that the student give to it was more white than the other because he was searching more shine.

Obviously on this effect the student had to do the blue light of the machine and on this effect he did more than on the others because with every new model he do the blue light of the machine moves faster and at the end, when he is modeling the energy ball the blue light moves faster and faster until the machine gets overloaded and the light starts to get on and off before collapse.

Fig. 5.1.8-1. Video without VFX.

Fig. 5.1.8-2. Video with VFX 8.

Fig. 5.1.8-3. Video without FX.

Fig. 5.1.8-4. Video with VFX 8.

9. VFX 9

This effect can only be read if previously you watched the short film because it is an spoiler of what happens at the end of the short film.

On the final scene Ruben is on an alley and he is going to burn the machine on a bin. He puts the box on the bin and start throwing kerosene above the two things to make it burn faster. When the box is burning he took his bag again and starts walking again. Spoiler.
When he is walking a blue light appears inside the bag showing that he had burned the box but not the machine.

This scene had to be recorded on the afternoon but on the storyboard and script it has to be late at night. This makes a setback because the sun light so before doing anything the student make a research on the net to know if it was possible to do a day to night conversion. He finally finds a tutorial from www.videocopilot.com where they show how to do this conversion with few steps. The only thing he had to do was to make a solid with Adobe After Effects CC put the opacity low, about 25%, and give to this solid some color effects to make it blue. He used the blue color because everything is bluer at night than at the midday.
The main problem that he had doing this day to night conversion was that the fire was painted also blue and even if it is midday, night or whatever hour of the day fire always have the same color and the same shine. He had to do a mask, another time on this project, to make the blue solid not to affect to the fire.
After finishing the day to night conversion he started to do the blue light inside of the bag. He used the same workflow that he used doing the blue lights of the machine in every effect where characters used it. The student did a blue solid which with using masks he gave the proper shape and with some effects he give to the light some blur and glow.

Fig. 5.1.9-1. Video without FX.

Fig. 5.1.9-2. Video with VFX 9.

Fig. 5.1.9-3. Video without FX.

Fig. 5.1.9-4. Video with VFX 9.

- Creating other elements

A part from doing the different effects of the short film on the postproduction the student had to do more things that are also important for the short film.

The first thing he had to do was to find typography for every text that appears on the short film. At the beginning the typography had to be created by the student but he decided that he will create it if he had enough time after doing all the effects and get the short film finished. Finally he cannot get enough time to do it and decided to search some typography similar to what he wanted to do. After searching for hours he finally found a close enough typo to use, this typo was a free rights typo so he can use without any problem on his short film.

This typo was used to finishes the VFX7 and to put a time reference on the ellipse after the Ruben's accident with the machine.
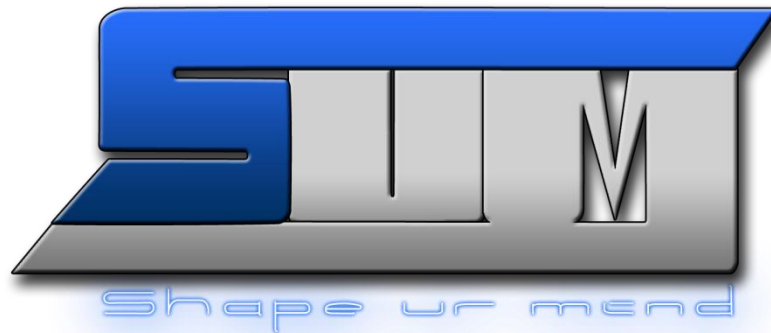
Fig. 5.2-1. Logo with the student's typo.
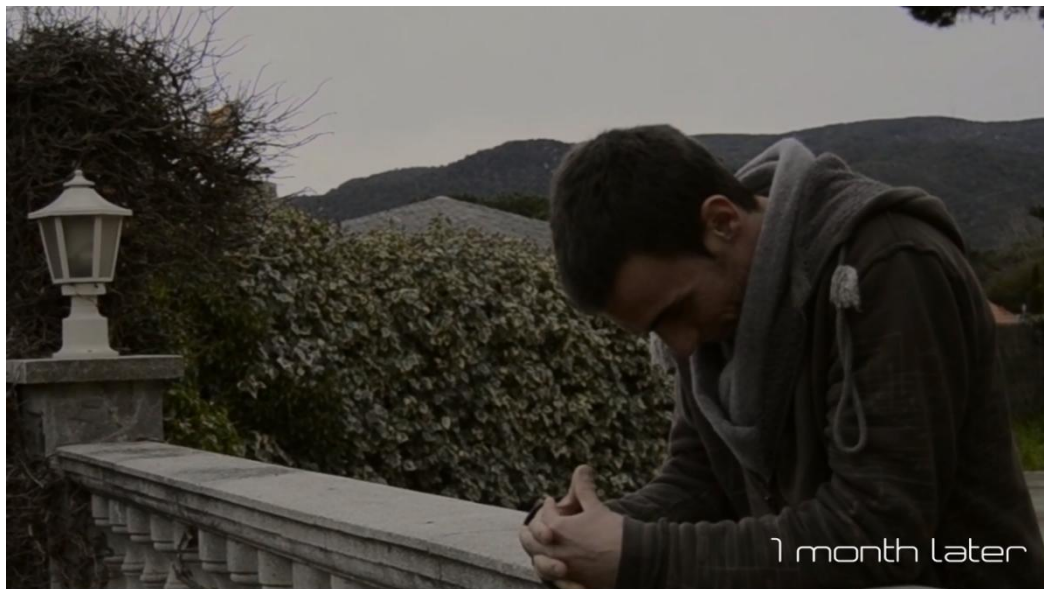
Fig. 5.2-2. Logo with the new and final typo.

Fig. 5.2-3. Video with the new typography.

The second thing he had to do on the postproduction part after had finished the VFX was to integrate them with sound effects. This was the most bored part of the short film because despite the student knows that without audio the visual effects seems poor and false he does not like working the audio part.

Also this part took too long because he had to search on the net the sounds for every single effect and sometimes the sound he had in mind does not exist and he does not have the tools and the equipment to create it so he had to improvise some sounds recycling other sounds and retouching some properties like pitch using audio software called Logic Pro. Obviously all the sounds he found and used on the short film were free of rights because the main objective was to not have any problem for rights doing this short film. If it is only one person who work on one project like this it is obvious that he cannot do everything good, one person is good in doing something but not as good as someone else doing some other part of the project so if a project like this is done by one person he has to get help from the net or from other people who had created things and share it.

Finally the student did the credits for the short film. He started doing the initial credits where the only thing that appears is the logo. To create this credits he used another time Adobe After Effects CC and a plug-in from www.videocopilot.com that he bought by the net. This plug-in is called Twitch and it makes the logo, on this case, move and changes his color like it has interference.

On the final credits he wanted to use the same plug-in as the initial credits but he thought that will be too much repetitive and he decided to do n animation with alpha channel and using one of the effect that the software has. It took one afternoon to do all the final credits because despite the animation is so simple comparing to the animation of the VFX he had to do every animation with the same tempo and playing at the same time of the other texts.

Chapter 6 – Intelectual property

All the media and software that had been used to do this final project was legal and the student does not break any law.

The student used two different softwares because during the year he works on his house with one computer and during the second stage at Glyndwr with another computer, his laptop.

During the year he used software from Adobe's family, which are Adobe After Effects CS6, Adobe Photoshop CS6, Adobe Premiere Pro CS6, and also he used other software outer Adobe like DaVinci Resolve Lite. A part from the last one, which as indicates his name was a free version that everyone can download from the website of the software, the Adobe software was bought to work on the project and also to use it for some professional projects that the student could find.

The problem cames when he had to install the software on his laptop because the computer where he had the software was an iMac and his laptop runs with Windows7. Unfortunately he cannot use the same software because of this incompatibility and because he run out of licenses for the software. The solution that he founds was to download a trial version of every program that he needs to finish his project. This was a really good idea because he only will stay at Glyndwr University for one month and the trial version always give to the user one month to try the software. So he downloaded Adobe After Effects CC to his laptop2 days before the leaving date to Wales to know if the new software of Adobe was compatible with the old one, the CS6. Luckily he does not have any problem and he decided to go through with this idea.

He only downloads the software that he really needs to do the project because the laptop is not as good as the iMac and he does not want to fill with programs that he won't use.

Doing a project like this the software is not the only thing that has to be under the law. The student also searched music without any right or with creative commons. He started the searching using the webpage www.incompetech.com from where he uses music for the trailer of the short film and one song for the short film. But he wanted and needed more music for the short film, he started again the searching and he tried to put on the search engine of YouTube the keywords "free royalty music", for his surprise he founds a YouTube channel called TeknoAXE where the owner uploads songs created by him and he classify them for categories. The student take a look to all the categories, he has categories like dubstep music, orchestral music, 8-bit music, introduction music, trailer music, loop music, comedy music and more categories. The student begun to listen the dubstep list and he found some great songs that he wanted for his short film so he decided to download from the webpage of the artist. In every single song the owner of the channel adds a description to the video where he explain that the song of that video is free of rights and everyone who wants can used it for anything does not matter if it is lucrative or not. And he also adds a download link to get the song in highest quality.

Finally the other media that the student used for this short film was the 3D objects. As had been explained before, on one of the VFX he used some 3D models of different objects that he downloaded from the net. On that case he does not use free right or something like this, what he did was download free 3D models. He download the models from www.turbosquid.com. On that website there are lots of different models and there are some models for which you have to pay if you want to use it and some for which you do not have to pay anything, they are free. The student started looking the free objects and he decided not to buy anything because the free objects was so good for his project.

In conclusion everything he used for the short film SUM, Shape Ur Mind is free of rights, there is only the songs of www.incompetech.com that have an attribution right, or they are free. And the atrezzo and everything that is shown on the short film is bought by the student or borrowed for the actors or the camera man.

Chapter 7 – Conclusions

At the beginning of the project the student put some objective that he wanted to demonstrate and he wanted to know if he was able to reach these objectives. Apart from that objectives he also learn some good advises for next projects he will have to do and also he thinks this advises can be used on other sides of life.

One of the objectives he wanted to demonstrate to everybody but in special to himself was know if he was able to do special effects like the ones of the Hollywood movies. He knows at the beginning that he was only one man and on Hollywood productions there is a team so he wanted to know if being only one man he can do some VFX similar to the Hollywood ones. Now, with the project finished, he thinks he could reach this objective because the VFX done are good enough to have been made by only one person.

From the previous conclusion, the student has learned another important one. As have been said before on Hollywood productions there have a team group so he thinks that the best way to do a project like SUM, Shape Ur Mind is working on group. It is possible to do with only one person, here it is SUM, but to get better results it is better to work with a good team. One person could do by the best way some part of the project but probably there will be another person who could do better than him one part of that project, that is why the student thinks it is better to work on teams.

Another objective he thought at the beginning of the project was to prove that he can write the script of a short film. He thought that objective because on projects like this the parts that he always wanted to do are the preproduction, organizing and writing the script, storyboard and thinking the locations, and doing parts of postproduction like the integration of the effects on the real action scenes.

He always wanted to do the preproduction part but is with this project when he realized that to be able to do a good project is needed the best preproduction you can do. He always did the preproduction of the class works and he thinks that in comparison the preproduction done to SUM it is so much better than the ones he did in the past but he thinks that the preproduction part for this project had to be better to get better results. Now he knows that the preproduction part is one of the most important because is on this part where everything had to be planned and thought. If anything is not clear later this part will create problems and everything will go bad because of this part was not thought.

Not all the conclusion are bad or depressive, there also be good conclusions. The student have learned that on the professional world you do not have a teacher who will help when you have a problem, you do not have your parents who will talk for you, if you want to be someone on this world you have to work and work and if you do not know how to do something sometimes you will have to move by your own to find the right form to do it or to find some way to do it. The major times there will exist a better way to do something but the important thing is to have resources and show that you can do that thing or that you can find one way to do it. Obviously this project was not a professional project and the student had a teacher here in Mataró who ask help if he need and the Glyndwr teacher when he stayed there, but despite this he only ask for help once or twice because he wanted to do everything by his own to be tested.

To conclude with all the report it is important to say that with SUM, Shape Ur Mind, the student had demonstrated that one person could do a science fiction short film and that the main difference between Hollywood productions and low-cost productions are the money invested on the production, the equipment used to do the production and the people who work on the production. If you want to do a production like Iron Man 2 you have to have a team group, good hardware and money to buy this hardware. If you want to do a modest production you do not have to have so much money and with a few people you can do it but you also have to buy or have good hardware because you have to run the software and manipulate the media.

Graduat en Mitjans Audiovisuals

SUM, Shape Ur Mind

Economic review

Sergi Petit Salas
PONENT: David Minguillón Planell

AUTUM 2013

Índex.

1. Prototype costs.

1.1. Material costs.

Description	**Quantity**	**Unity price (€)**	**Total (€)**
Hardware			
Computer (iMac, intel core i7, 8GbRAM, 1600MHz + Fusion Drive)	1	2.000	2.000
Laptop (HP, intel core i5, 4GbRAM, 2'4GHz)	1	700	700
Wacom Bamboo Pen&Touch	1	80	80
Camera (Nikon D3100)	1	500	500
Microphone	1	50	50
Software			
Adobe Photoshop CS6	1	300	300
Adobe After Effects CS6	1	300	300
Adobe Premiere Pro CS6	1	300	300
Adobe Illustrator CS6	1	300	300
Cinema4D	1	2500	2500
DaVinci Resolve Lite	1	Free	Free
ToonBoom	1	249	249

Logic Pro	1	180	180
Atrezzo			
Firefighter helmet	1	30	30
Painting	4	15	60
Black plastic sheet	1	5	5
Paper sheets	5	5	25
Canvas	4	3	12
Rubber-band	1	2	2
Papers	100	0,01	1
Others			
Kerozene	1	10	10
TOTAL MATERIAL COST			**4.675**

1.2. Human resources costs.

Concepte	Hores	Preu/hora (€)	Total (€)
Scripter	100h	30	3.000
Actors x2	18h	15	270 (540)
Actor	12h	15	180
Camera man	18h	20	360
Light technical	18h	15	270
Audio Recording Technical	18h	15	270
Set decorator	30h	20	600
Animator	150h	25	3.750
Postproduction technical	400h	30	12.000
Editor	50h	30	1.500
Memory Redaction (Administrative)	70h	20	1.400
TOTAL HUMAN RESOURCES			**23.870**

1.3. Amortitzation.

Equipment used	Usage time	Price/hour	Total
Hardware			
iMac	600 + 200 (render time)	0,225	180
Laptop	200 + 100 (render time)	0,6	180
Wacom	50	0,48	24
Nikon	24	3,75	90
Microphone	24	0,48	11,25
Software			
A. Photoshop	50	1,8	90
A. After Effects	350	0,25	90
A. Premiere Pro	200	0,45	90
A. Illustrator	30	3	90
Cinema4D	100	7,5	750
ToonBoom	50	1,49	74,7
Logic Pro	25	2,16	54
TOTAL AMORTITZATIONS			**1.339,95**

1.4. Indirect spending.

Doing this short film there was not any indirect spending apart from the electricity of the computers because all the production of the short film was done at home or at Glyndwr University. This is the reason because the student finally set a percent of 1%.

1.5. Prototype manufacture cost.

Material cost	4.675 €
Human resources cost	23.870 €
Amortization cost	1.339,95 €
Subtotal	29.884,95 €
Indirect spending (1%)	298,84 €
TOTAL	**30.183,79 €**

2. Market selling price.

2.1. Total unit cost.

On this point the student calculate the manufacturing cost which are referred to get in contact with a company in order to create a professional DVD with his box and printed cover.

The price has been consulted on a company (www.duradisc.com), they sent the budget via mail. To make 10000 will cost 7.500€ which means a price of 0,75€ for each DVD.

Material total cost per prototype	30.183,79 €
Material cost per unity	3,01 €
Manufacturing cost per unity	0,75 €
Total cost per unity	**3,76 €**

2.2. Selling price per unit.

Total cost per 10.000 units.	7.500 €
Development cost	30.183,79 €
TOTAL COST	37683,79 €
Unite selling cost	3,76 €
Comercial margin 70%	2,63 €
Unite selling price	**6,39 €**

Graduat en Mitjans Audiovisuals

SUM, Shape Ur Mind

Appendix

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AUTUM 2013

1.- Introduction

The dissertation is focused on the special effects, more specifically at how these have entered the world of cinema and how they have changed.

To do this the research has been focused on various aspects such as:

- Classification of the FX in order of when they have to be done.
- The consequences of the use of the special effects.

As you can see, the job search is divided into two blocks of study that at the same time can be complementary.

The first block will study and compare the first techniques used to create special or visual effects in movies of the time, paying attention on how to introduce the effects, with the new techniques used today to create fantasy worlds or to make a film without any real actor. In a few words this first part of the project will be a *comparison of the older FX with the newest FX* to know more about how they have evolved and how the FX works. This comparison will be done on the three groups I have planned, before, while and after the recording. The objective of this first block is to know what types of FX exist, to know when we have to do every one and to know more about his evolution in order to think, if it's possible, a new way to do some FX.

To perform the second block is an essential requirement to perform a little research of the history and development that have been affected since its appearance in the film and then can know what the consequences have been derived from this use. Speaking of consequences that have arisen with the use of effects refers to how the public reacted to see the effects on one side and how has the film world evolved as being able to integrate elements of fiction in real life situations.
The main objective of this second block of study is basically to know what consequences of the use of these special effects have caused.

2.- Special FX

2.1.- What are they?
The special effects can be defined as a set of techniques used on the entertainment world either theatre, opera, cinema, tv, concerts or home videos.

These techniques are applied in any of these disciplines to create an illusion to the spectator who things, that actions or events are real when in a normal way this kind of things are impossible to achieve.

When we talk about illusions we talk about transformations, like a metamorphosis from human to alien, recreate impossible actions, like fly, or create scenes where what is happening does not exist. It is obvious that without this kind of effects all of the previous examples would be impossible to do and therefore could not record. But this is not the only reason why most of films use FX, on the most of the cases they use FX because it's more cheap to recreate

something with the computer and sometimes it's more save. On this kind of effects we can find representations of extinct or fantasy animals, like dinosaurs or dragons, also recreations of explosions of models (the boats of <u>Pirates of the Caribbean</u>).

Apart of the generation of illusions and emotions, as has been said before, it is important to say that there is a kind of effects used to improve what has been recorded. In conventional methods there are some ways to improve one recorded scene or frame, one of the methods is by including things, colour or lightness, using the adding technique. Another way is using the deducting technique in which some things of the picture are erased and another way to modify the frame is altering already on the same frame.

2.2.- Types

Within the special effects you can find some different classifications due to the number of different types of existing FX. The most accepted classification divides them into four groups.

On the first group we will talk about the optical effects, which are known as visual or photographic effects as well. As their name show they are based on photo retouching, frame retouching if we are working with moving images, like we do in cinema. In the last years another type of doing things has been added to this group. This new technique is animation where all what is seen is created only with the computer, so we see CGI (Computer Generated Images).

The second group on which the FX are classified is known as mechanic effects, practice or physic effects. They have this name because they are effects executed during the recording. On this group is where operators use mechanical puppets, stage design, pyrotechnics and other effects like rain or fire. At the beginning this style of doing things was very rudimentary but nowadays a mechanical puppet can do lots of movements and his face can recreate very kind of human expressions.

On the third place we will talk about sound effects. This group contains all programmes sounds like growls, sounds of technology, etc. Despite popular belief, that thinks the sound effects have not been considered as a FX, it has to be said that most of the experts and operators confirm that a visual effect alone does not serve, it must be accompanied by a sound effect to complete his integration. This is because our brain only considers one thing as a real thing if we can see and hear it.

Finally the fourth group is the special makeup. Nowadays is considered that the most part of the FX are created using the computer and software designed for animation, but the truth is that the makeup is very important on any production. With makeup we can create from the face of a monster or a werewolf to a perfect makeup for an actress who is having a coffee on the terrace of a bar. There are some different types of makeup. A good makeup artist has to know everyone to do a good job in any production he does.

3.- Classification

To have a clear idea about the FX I wanted to classify all types of effects by when they have to be done. In my opinion it is a good way to classify them because lots of people think all the effects are done on the postproduction and this is not true.

3.1.- Before recording

It is obvious that every kind of effects has to be thought of before recording to know how the camera man has to record the shots in order to include the effect on the postproduction, for example. But there are some FX that their preparation and execution are on the preproduction. These effects are the **makeup effects**.

Makeup FX

The appearance of makeup as a special effect and as an indispensable element on a cinema production was because of the problems that first celluloid have with the colour of the skin. They reacted with red making the skin whiter and nullifying stay deep reds.

To solve this problems, some productions started using makeup as actors use on the theatre but it carries another problems. The main problem was that they use many layers of makeup and when the actors were recording this makeup ran because of the sweat.

At middle twenties the actors used their own makeup but this makes that sometimes the makeup was different from one shot to another.

It wasn't until the arrival of *Max Factor* and *George Westmore* that the industry made a big step forward because they started to implement the makeup bases, search new ways to do that fit with the evolution of the cinema and they founded the first makeup departments on Hollywood.

An example of how important is a good makeup on a film it is as easy as look the last winners of Oscar makeup awards.

- At 2011 - **The Wolfman** Rick Baker and Dave Elsey. – On this film we can see that the makeup work is much elaborated in order to make a werewolf believable.
- At 2012 – The Iron Lady Phyllida Lloyd. – This year the award was for a realistic makeup that gives to Meryl Streep the same appearance as Margaret Thatcher.
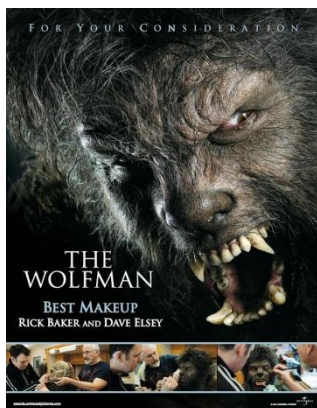
3.2.- While recording

On this section I will talk about the effects which his execution is during the recording. There are some kinds of different effects that are used while recording but the most important are **mechanical effects** and **scales.**

Mechanical effects

The mechanical effects have this name because they are based on physics and mechanical objects like puppets, sets or pyrotechnics.

Inside of these effects there are some different techniques to do the things depending on what you want to obtain. The most elaborated technique on this type of effects is the *Animatronics* in which the puppets are moved with a robotic or electronic body to simulate the real movements of a real live animal or fantasy creature. Animatronics got much fame thanks to Jurassic Park, where there were many dinosaurs that were made using this technique. Another names of relevant films that used the animatronics are Jaws, where they use three different models of the sharks, Gremlins and E.T. the Extra-Terrestrial.

Films behind the scenes
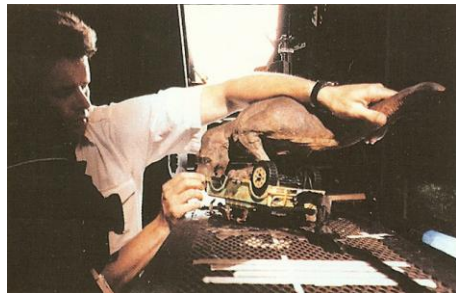
Jurassic Park


Jaws

Gremlins

Moving inlays

Every effect has his own evolution and his changes over time but not everyone has as relevant changes as moving inlays. This effect is based on projection of an image, usually a moving image, in a screen to create the illusion of movement without having to do anything on postproduction.

This effect was created during the thirties and on this moment the effect consists on projecting an image on a screen that is situated behind the actors and sometimes the set. This position of the screen is because what is projected on it has to be seen only by one window of the set as a background.
For example, if they want to record a scene on a train they put the screen behind all of the set to simulate the train is moving projecting a movement image on the screen which is seen only by the windows of the train (set).

The first modification of this effect was thirty years later, at 1969, and what was different of the first effect was that now the screen was between the actors and the set and the projector was before the actors, next to the camera. Many people thought that it did not have any sense because if the screen is before the actors they won't be seen on the recording but, the innovation was that the screen was a reflective screen and the camera will only record what is reflected with intensity. So, the camera will only record what the screen reflects and not what the actors reflects.

Nowadays this effect or technique is still in use, but is now better known as chroma-key or chroma. Now there is even a screen, but there's nothing planned on it, the screen is uniform in colour, usually green or blue. This colour is used later in postproduction to know where to embed the video or image.
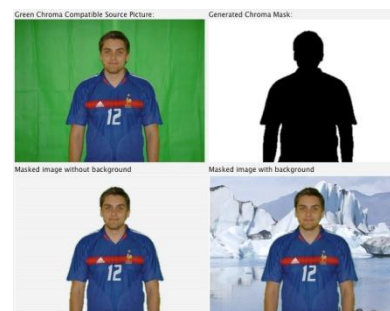
Editing

The editing effect is a technique that is used since the beginning of cinema. It's a really simple trick that generates a good illusion if it is well done.

To explain these effects it's better to do it with an example. We are recording a shot where there are some people in the waiting line of the cinema and after some seconds we want to make disappear one of the persons who is waiting. Using this effect this disappearance is very simple to do. We have to start recording until we want to do the disappearance, is now when we have to stop the recording, move the person who will disappear out of the shot looking that everyone else is still, without moving anything, and continue recording from where we stop before.

This technique was used by first time by Edison's Company on the film The execution of Mary Stuart (1895) but many people associate this effect with George Melies and his productions.

3.3.- After recording

Matte shots

Effects achieved through the technique can be said to have a close connection, although in shortened form small, with editing effects.

While on editing the effect is get when two shots are mounted together, one after the other, on the matte shots the effect is get on the same shot. Operation of this effect requires a mask on one part of the camera in order to cover part of what is not wanted to record. Making this a part of the film, which was covered by the mask, was not impressed by the light rays and still remain unrecorded.

Once all what has to be recorded on one side of the mask is recorded, an operator changes the mask for the inverted mask to record all what has to be seen on the other side that still remains unrecorded.

This technique was invented by G. A. Smith and George Melies and later Edwin S. Porter and Norman O. Dawn improved it. The last one, Norman, improved it to the point to create a mask done with glass where someone can draw the background that he wants for the shot that was recording.

Optical

Optical effects are a type of effect that are based on the photographic retouch so many of the new ways of work and methodologies of doing things come from the photographic world. The integration on the cinema comes thanks to the fix photography and the technique of the Magic Lantern.

Inside of the cinema there are not photographs retouched, what are retouched are the frames of the film.

For many years the cinema has worked with these frames to paint elements of the scene on black and white to give them more importance thanks to the colour. An example of a film on B&W where the coloured frames appeared is The Great Train Robbery by Edwin S. Porter.

By the time the techniques of photographic retouching has been evolved and improving and thanks of all this new advances cinema has been able to improve his frames retouching. One of the advances that came quickly was the possibility to include or exclude elements of one frame and of the scene. This technique is one of the most used nowadays because it allows integrating different elements on the scene from simple text to a computer generated interface with which a character seems to interact in a real way.

Iron Man, holographic model of a city

Digital effects

The digital effects are also known as CGI (Computer generated images) and many people think that when is talked about digital effects is talked about one frame which is done all using the computer. This is not true because despite making a scene using only the computer is CGI integrating an element created by the computer on a real scene is also CGI.

The first incursions of the CGI on the cinema were thanks to Star Wars on 1977, using some small integration on the X-Wing, and on 1982 using entire shots on Tron.

Actually this type of effect is on expansion because of the Sci-Fi and fantastic genres are very popular. Because this effect has become more popular over time has evolved from what was originally.

Inside this technique we can find some different kinds of doing things with the computer.

On the first site we can find the CGI, a technique that every day is more used. On this technique the image is created entirely by the computer. One of the effects, using this technique, that surprise the audience of the time was the one used on Young Sherlock Holmes when the glass of the church becomes a knight.

To do this type of effects is necessary to follow 4 steps:

1. Design the characters of elements that have to be created with a sketch.
2. Create the sketch on 3D to get the volumes.
3. Add the materials to know haw the model react with the light and create the setup, internal structure of the model.
4. Animation of the model and rendering.

Frames of "Young Sherlock Holmes" where appears a knight created using the computer

Another kind of effects inside of digital effects is the morphing, which consists on making a conversions between on photographic element to another using common points that it can be chosen by the designer or by the programme. On X-Files this type of effect was very used to morph a human to an alien or monster.

And finally one of the most actual techniques of digital effects and animation is the movement capture.

This technique is based on, how is said on his name, capture the movements of a real person, animal or object with some cameras distributed on a studio and send this movements to a 3D model that has done on the computer. These movements are get using the cameras from one side and a uniform colour suit with some points. This points are what the cameras record to get the movement of they, once the movement is recorded is send to the model on the computer to recreate the same movement. Actually there are software that allows use this technique on real time, so when the actor move on leg the model on the computer move the same leg at the same time.

One of the first characters that was animated using this technique was Gollum, from the movies The Lord of The Rings II & III. And another film that used this effect was Avatar where the most of the characters was created using the movement capture.

Mix of actor and characer "The Lord of the Rings"

Mix of actor and character "Avatar"

3.4.- Conclusions

After analyzing all types of special effects that exist in cinema or have existed at some point in their history I know much better what kinds of effects are used in specific types of scenes.

The motivation that brought me to do this study was to determine the beginning of special effects, its evolution and its characteristics and its method of application. Once the field work has been done and it has get all the information possible to make a classification of the effects, I have seen that there are many more types of effects than initially expected to find and what surprised me is the application of these effects, in either mode are applied to achieve its realization as to the time of this application.

Like many people I tended to think that the vast majority of effects are done in postproduction and everything was settled at that phase, on the postproduction. But having delved deeper into the world of special effects I can say that the effects are intended and planned in preproduction and a large number of them are made in the production of the project. This was an event that caused me great surprise because I thought that the major part of the effects of one production was created by the computer. It really could be created by computer, but used models and are performed manually do it because it takes too long doing with the computer or too expensive.

The premise with which I began this dissertation and to approach this part of it was to make a comparison between the old effects, the first to be developed in the cinema, and the newest effects used today.

The first problem I had when I tried to make a classification based on these two parameters, old vs. new was that many of the old effects are still used, many of them have evolved, but remains essentially the same effect was used at the beginning of the cinema. Furthermore today there are many effects but despite many of them are new come from the same site, the computer. So I decided to change the way classify to otherwise merge them in a way that also seemed interesting, when are done. In making this classification, as mentioned above, I also had surprises when I found more effects that I expected at the beginning.

Analyzed the large blocks in which can be divided special effects it can be seen that today when you want to apply a particular effect usually this is accompanied by side effects to help their integration. That's why people who are dedicated to the implementation of effects usually have to have training or small notions of different sciences such as chemistry, electronics, engineering, etc. Knowing some aspects of these sciences and some knowledge in fields such as anatomy, evolutionary forms, psychology, etc. they can get to make great special effects and even create a full character.

The special effects are the order of the day in almost all productions that are created today and although there effects which are made using puppets, for example, all effects just passing through computer tweaks to increase its credibility and thus achieve greater integration.

4.- Consequences of using FX

4.1.- Why use FX?

At the first steps of cinema the person who did or recorded films the only thing that they wanted to show is something in movement. With the passage of time some filmmakers realized that they can do much more with that invention, they started filming short films with a little story. When this kind of cinema became more and more popular filmmakers decided to go one step forward and start using some techniques that allow introducing new forms of showing the images. They started using the first effects.

The first uses of the effects were because of the necessity of some filmmakers to show things which are impossible like scenes of fantasy, unreal situations, etc. They started thinking that if someone can think of it, it could be done with special effects. Logically on these days some things were impossible to do, but now this sentence is becoming truer every day. Using the computer and a mix of some techniques nowadays it seems that everything could be possible.

4.2.- Social consequences

Throughout history there have been many moments or situations in which some people believed that what they were watching was true and real or that because of the producers used effects that film was not be considered as a film, some people think that they have cheated.

The effects have been evolving at the same time of cinema so every few years a new or improved effect surprise the audience. This makes that some people think that what he was seeing was real and often they get frightened, some people think that it was impossible but it was great to see it on the screen and some people think that seeing that was a waste of time because it was not real.

One example of people who were frightened when they were watching a film was when Edison shows his film The execution of Mary Stuart. On this film it could be seen how they cut the head of Mary. When people saw this scene they get surprised, frightened and some people fainted.

As some other arts on the cinema there was who doesn't understand what he was watching and because of that he refuses it. If we talk about the special effects and obviously the Sci-Fi cinema there are lots of films that are been criticised because of the use of special effects. One of these films was Tron. This film got really bad critics on the newspapers. The Washington Post, The New York Times, Variety, Chicago Sun-Times, all of them said that Tron had an empty plot and the special effects was so poor and used to show the computers in a romantic and glamorous way. After receive this critics The Academy decided not nominate Tron for the special effects award because they think that the use of computers was a cheat.

This is one example of one movie which use special effects and was not accepted by the critic and some of his audience. Obviously this is not an isolated case, there were more movies that have been socially misunderstood, but there were movies that the audience accepted and they are considered a great film because of his effects.

4.3.- Cinema consequences

One of the major consequences that occurred with the creation of special effects was the great contribution they made to science fiction movies. It could be said that science fiction is what it is today thanks to contributions of special effects that throughout the history have given.

Logically the first special effects were very rudimentary and meant little in an audiovisual production but over the years, and more in this genre, the effects have become increasingly important to the point of being the most important in many productions which are performed today.

Another great consequence that has caused a change in the world of cinema is the possibility of been able to retouch the film in postproduction to fix possible errors, add or remove items and even get a colour in photography that otherwise would be impossible. In the early years of cinema, when it was still in black and white, the most important work done as a special effect was to colouring over some frames of celluloid. A leading figure in Spain and in the European cinema was Segundo de Chomón, who would later work in more techniques of special effects like animation techniques.

Many film critics, filmmakers, producers and actors have reached a consensus that the special effects have enriched the movies over the years of coexistence and even today still do. They claim that the special effects enrich the language of film and that because of a large number of scenes that uses special effects get introduced with a greater emphasis because of them. They also share the idea that the special effects help explain a story and thus help the narrative production

4.4.- Conclusions

Finally it can be concluded that special effects have meant a breakthrough in the world of cinema though initially society, or a part of it, not accept them or saw them as a kind of cinema to disregard.

Like all the advances that have been developed throughout the history of cinema special effects have also changed and have helped to create a new and improved audiovisual language. They have also helped to improve the narrative of some stories in many movies.

On the social side the evolution and the consequences that have created the special effects are comparable to the reaction that has a sceptical man of magician. At first he does not believe what he sees, do not understand and therefore despises it for not really give the importance it deserves. Then to see the possibilities that are provided he is surprised and stunned in front of the mage unable to speak until he understands that what matters in this situation is not to understand how to do the trick, what really matters is to relax and enjoy it. With the special effects and the society something similar happens. In the early years of the special effects were so many people who refused because they believe that the special effects were a lie and that it had no courage to do that sort of thing. Later the special effects were improved and conquered many of those who once had reneged on it. And today the special effects have created a world, closely linked to science fiction movies, where what matters in the film are themselves, the special effects.

5.- Conclusions

By performing this work it has been seen that there are more types of effects than I initially thought it would be. It has been a study of each of the various types of effects that exist today and are classified according to their moment of development.

As already discussed in previous sections all effects must have a preproduction and be designed in the preproduction of a movie, TV series, short, etc. but with this classification people can have a clearer idea of when to be the execution of different types of effects and if necessary to take into account any other aspect or effect in order to get an integration as much as possible similar to the effect you want to perform.

Besides studying the moment to perform each type of effect I also have done a search and a comparison between the oldest effects, those born around the same time as the film, and modern effects. Contrary to what many people think and what I myself thought at first, there are many oldest effects even today still apply, obviously with some improvements and perhaps some variants of what were once but remain in force in the world of cinema.

Really what happened to most of the older effects has not been his disappearance but its relevance to modern times. Today, these effects are still being old but normally are usually associated with other more modern effect or technique has evolved and is controlled by more modern processes.

Today their makeup effects, effects that some do not consider themselves as special effects but which I believe are very important in many cases and thanks to them some effects gain credibility on the screen. There are also mechanical effects, motion-based effects of small-scale puppets or scale of some animals or dinosaurs, for example. On the other hand there is also what is known today as the chroma-key, which allows you to put a character, who is recorded in front of a green or blue background, on any other fund or situation by cutting his figure, and even today there are those who already doesn't believe it as a special effect but a process when mounting the effects scenes there are effects that are also created at the time of editing and mounting shots. We can also find the matte shots, which through a mask on the lens produce a similar effect to the above effects, also the optical effects, in which then is done a frame retouching, and digital effects, very accomplished in recent years due to its great potential is bigger every day.

There exist all these kinds of effects that can be included in a film production. The productions that are used in most types of effects are productions of science fiction cinema. This is because from the beginning the special effects and the science fiction genre have been very close and have evolved together. Logically science fiction without good special effects would make no sense because you could not create the necessary illusion to catch the public by his admiration or his fear of what is happening.

For years the public who saw some of the effects that were performed in such productions were astonished by what it could get, and even today these productions still leaves the opened mouth more than one. But there have been who have rejected this type of film because they think that the use of these effects were a lie, were trap. This is what many thought, because

they do not understand the effects or it even horrify them to see some effects to think that these effects were real.

Therefore we can say that the special effects have by one side acceptance of much of the public who has seen it but also, and like many things in our society, have suffered rejection and boycott in some cases from other sectors of our society. But yet no one can deny that special effects have evolved giving the cinema more credibility and better quality in regards to the visual part. The special effects are closely linked to the genre of science fiction but it is not the only genre on where they are applied. In today's productions is rare not to see any of the aforementioned types of effects applied to it, either simple makeup, a little retouching of plans for a touch darker or brighter or integration of funds or some of the elements in the film planes.

6.- Bibliography

Web sites where I found information about the types of effects.

- http://www.actiweb.es/fotocine/como_se_hacen_los_efectos_especiales.html
- http://es.wikipedia.org/wiki/Efectos_especiales

Web sites about the history of the effects.

- http://www.profesionalesdigitales.es/profesionales/blogs/node/2585
- http://www.claqueta.es/articulos/efectos-especiales-en-el-cine.html

Web about some effects of specific films.

- http://cinemania.es/actualidad/especiales/13430/los-efectos-especiales-detras-de-las-camaras

7.- Filmography

Films.

In more recent films I have seen the director's commentary.

- The execution of Mary Stuart.
- A trip to the moon.
- The great train robbery.
- Jurassic Park.
- Gramlins.
- Star Wars.
- Tron & Tron Legacy.
- Young Sherlock Holmes.
- The Lord of the Rings.
- Avatar.
- Transformers.
- Iron Man.

Tv series.

- X-Files.
- Primeval.
- Eureka.

Documentaries.

- "La ciencia de los efectos especiales" - http://www.youtube.com/watch?v=uUoVWhJrBlU&NR=1&feature=endscreen
- Science at the Movies - https://www.youtube.com/watch?v=-xUzQ0RtsC4&list=PL4F546061AD31B146&index=6

Talks.

- TED – Rob Legato: The art of creating awe. - http://www.ted.com/talks/rob_legato_the_art_of_creating_awe.html

Pedro and Kim's table

Pedro will be on the left of that table and Kim on the right, nex to the window.

Pedro and Kim's table

Pedro will be on the left of that table and Kim on the right, nex to the window.
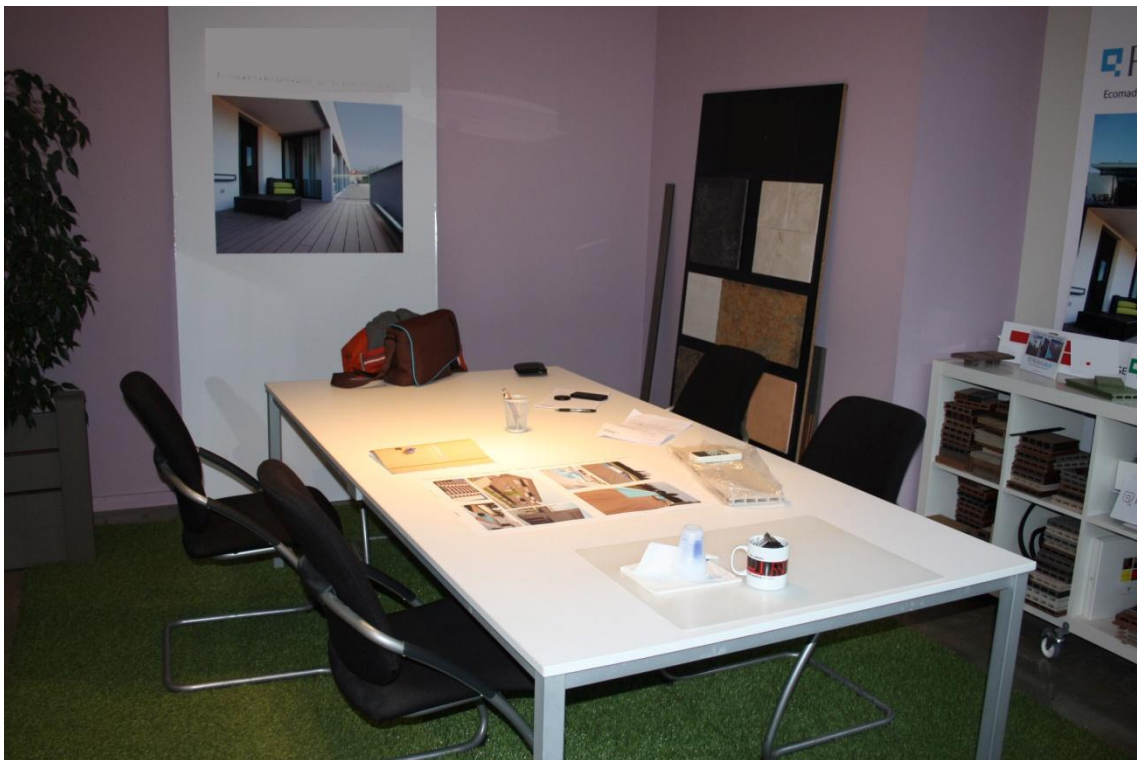
Locations

Ruben's office

Next to the door there is a white poster, on teh recording day this poster will not be there, the glass will be empty.

Locations

Locations

Hall

Locations

Alley

Locations

Stairs
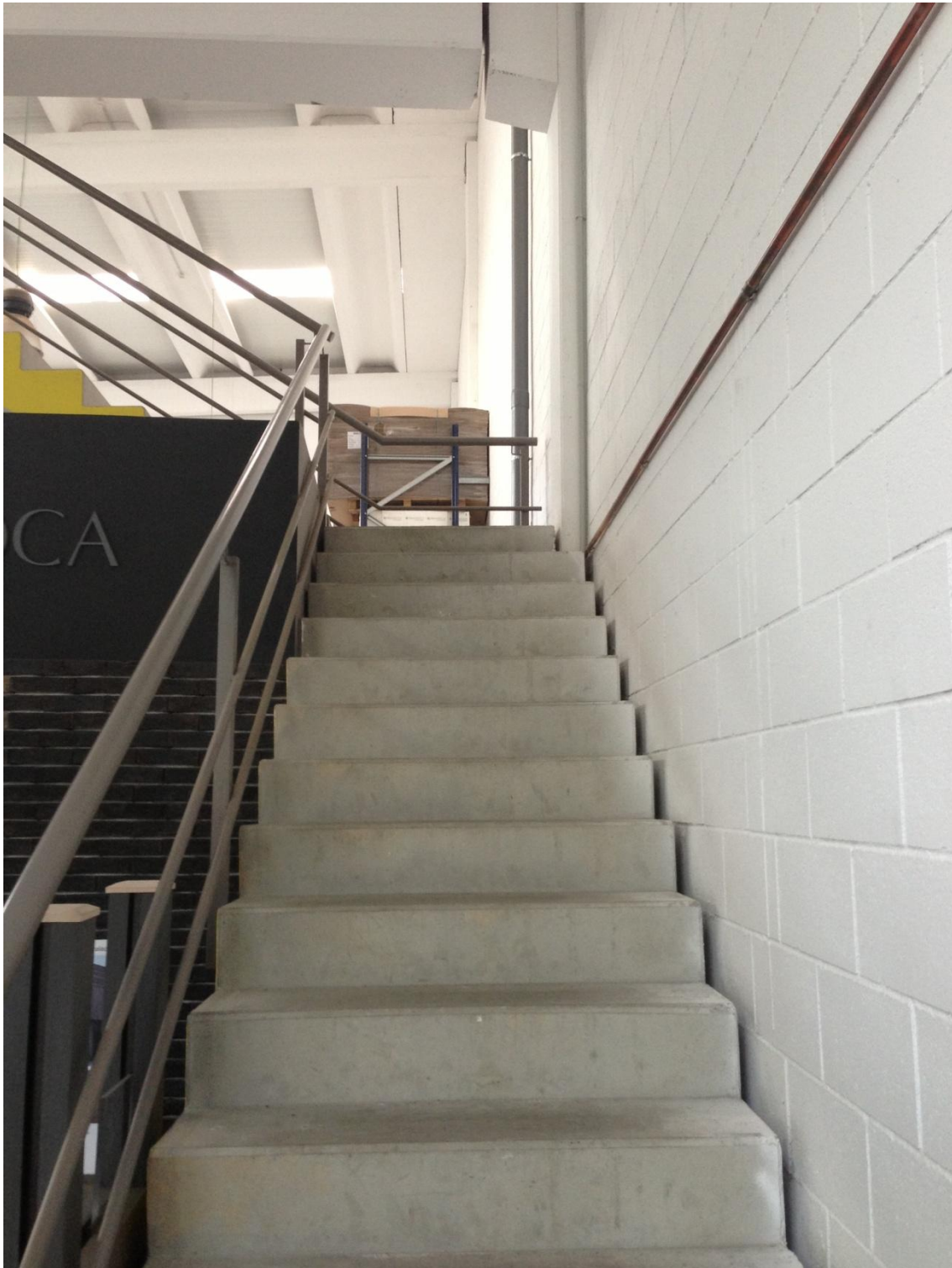
Locations

Locations

Project Overview

The project that is going to be done it can be summarized in one sentence. Integration of FX on a live action short film. To do this project the first thing that has to be done is record the action with real actors, so a plot and scripts will be needed to do this part. When the live action is recorded the next step of the project is to edit the recorded scenes to get the final film. Once the final film is done it's time to put the effects on it.

The reason why I want to do all this job is because since I was a child I always wondered how they do this kind of effects and as I was getting older I realized what was behind.

The main objectives I want to achieve doing this project are:

- Increase my knowledge of FX software like After Effects, Boujou, etc.
- Work on the project as a professional project.

As said before the project will be divided into 3 parts, preproduction, production and postproduction.

On the preproduction the requirements of material are most expensive than on the other parts of the project because on this part I have to create different models of the machine that will appear on the short film. This means that I will have to buy the materials to do it. A part of buy this materials I will have to have on my computer ToonBoom to do all the storyboard before start recording.

On the production I will need material to record the action so I need some cameras, lights, microphones, etc. A part of this material I will need the clothes of the characters and some attrezzo to put into the locations.

Finally on the postproduction I won't need any material a part of software to do the editing process and to integrate the effects that I want to show on the film.

Project Aim

The reason why I'm doing this project is because I want to produce a different short film, a short film that some people may say that is a commercial short film. This is because I think that most of the short films that are made by students at the end of his degree are more experimental or introspective, in my case I want to do something more commercial because I'm influenced by this type of cinema.

The production of this short film will help me to show what can I do by my own to other people and if it's possible get a job on the FX world.

Project Description

Project Outline

As it has been written before the main phases of the project are only 3.
During the production of this project first I will have to do the preproduction, this project plan is part of it, the production and the postproduction.

On the preproduction I will think about all the details that have to be considered to be able to do a good production without any problems and I will have to do the models of the machine.
On the production I will have to take all the actors to the locations and all the material a part of the camera man who will record most of the short film.
On the postproduction I will edit the scenes and put the effects on it.

Origins of the Project

When I started Audiovisual Media at TecnoCampus Mataró-Maresme I didn't know anything about what I will do on my final project but after these three years I could see different things to do.
This knowledge and the interest that I always have had in the special effects of the movies make me decide to do a science fiction short film where the most important part for me is the integration of the effects and, in less importance, the plot, because write plots is interesting for me to.

Project Locations

During the short film will appear only two main locations.
The first location that will be shown to the audience is where the three main characters work. This location will show different aspects of what kind of live have everyone.

The second location will be at the same TecnoCampus Mataró-Maresme (TCM), because in one scene of the short film a hospital room is needed so I will ask for permission to record on the rooms that students of nursery have to practice.

Project Delivery

This project will be done only by one person, but in some parts of the project he will need some help from other people because he is part of the three actors that will appear in front of the camera, so it will have to be a camera man who record some scenes, and 2 more actors who act with he.

Figure 1 : Project Team Members

Name	Role	Contact Details
Sergi Petit Salas	Director/Producer	sps_2@hotmail.com

Linkages

Here in Catalunya there are some companies that work for Hollywood or for Spanish productions doing the FX so this kind of project could link with this type of companies.
If the final production has the enough quality it can suppose a chance to get in touch with some companies.

Strategic Fit

The project doesn't fit with any particular strategy because it's a final project of one student of the university and here it's difficult to do a short film like the one I want to do and link or fit with any strategy of the city, nation or state.

Because of that I will try to take part and contest on different contests of animation short films or short films only. By the moment I will send my project to Animac that is done in Lleida, Catalunya, and to Annecy that takes place every year in Annecy, France.
I know that it will be difficult to win something but it's a nice goal to achieve because it gives to my project another reason why to do it.

Project Marketing Strategy

Because it's a short film it's more difficult to have an outcome that someone can sell as a tangible product but it's possible to sell the short film by his own recorded on DVD, a part from that outcome another things that can be done to have more outcome are making some posters to promote the short film and later sell this posters as outcome.

Marketing Objectives

By the way I don't expect to have any outcome because I'm only just a student and we are all in crisis so I don't believe anyone will be interested in buy one poster of my short film or by it in DVD.
Obviously family and friends it's possible that buy some things but I know that this won't be enough to win what I had invested on the project.

Marketing Strategy

The promotion of the project will be done on the net. Basically I will create a webpage in Facebook where everybody could come inside and see what is going on with the project. A part from that I'm writing a blog on Wordpress.com where I explain what I'm doing, my feelings and the problems and solutions that I have while I'm doing it.

These two web pages will link to YouTube where the users and everyone who is interested on my project can watch the trailer and the animatics. In a near future it's probable that more videos will be uploaded.

Market Need

As it has been said before in Catalunya there are very companies like NasaFX, Fassman or RecMedia who are specialized in doing special effects for cinema, TV, publicity, and social events.

This market reality and my desire of doing something that involves the FX make me take the decision that my project had to be a short film where one of the most important things were the special effects, so I will do a science fiction short film.

Project Objectives

When I decided to do this project my main objective was to do a professional short film that can say that I'm good enough to work on the FX world. This objective is really important because I think that companies where I ask for a job will look my experience and it's important to me as well because I take it as a challenge to test my skills.

Now I'm developing the project so I can look it in another way and, although my main goal remains the same, I think in other possible objectives like send the project to a contest.

Project Organisation and Management

This project will be done by only one person, who it's me, Sergi Petit.

This is the reason why the main tasks are always done by me except the recording of the short film because I want to be one of the main characters and I can't do the two tasks at the same time. Despite of I will be an actor I will supervise all the recording to be sure that all is how I want for the production.

As it can seen on the table there are 8 main task that has to be done to make the project properly. Some of this task are prepared for one person because the project is only for one person, but other task like "Think and prepare the Recording Plan", "Record" and "Act" has to be managed by different people because on this tasks more than one person will take part on it and it's necessary to think on his timetables to be sure that everybody who is needed can come to do it.

Figure 2 : Project Responsibility Chart

	Main Tasks	Team Members						
		Sergi Petit	David Rubio	Clara Vallmajor	David Martinez			
1	Build a model of the machine	X						
2	Write Plot and the script	X						
3	Draw the Storyboard	X						
4	Think and prepare the Recording Plan	X	C	C	A			
5	Record	P			X			
6	Act	X	X	X				
7	Editing Proces	X						
8	Integration FX	X						
9	Make some marketing	X						

Team Member Key:

Role Symbol Key:

X   Executes the work

D   Takes decisions solely or ultimately

d   Takes decisions jointly or partly

P   manages work and controls progress

C   Must be consulted

A   Available to advise

Project Quality Management

Before start doing anything of the project is necessary to know what is required to think how to do the different tasks of the project by the right way and make a list of points to achieve task by task.
Once this requirement has known it's time to start doing the different steps of the project and go checking that everything is complying with the plan. This checking will be done after doing one of the tasks and every night after one day of work to be sure that everything is correctly done.

Project Communication Management

A part from the teachers who is following and supervising the project the most information of what have to be done and when it's only important for me and for someone else if I need some help in any moment.
The other members of the staff that has to do some tasks have to know where they have to go to do it, when and what they have to do.
This information will be delivered to they when this project plan will be finished and when all of them could confirm when they can do it.

Project Equipment and Facilities

To do this project the main things that I will need are:

- Materials to do the model of the machine.
- Clothes for the actors.
- Camera.
- Lights.
- Other recording material (tripod, cables, etc).

The most part of this material I will take it from the university due to they have a service where the students can take the material that they need to do his own projects.
Other material like what I need to do the model I will have to buy and by the moment I don't know what materials are the most appropriate.

Project Workplan

Figure 3 : Project Task Schedule

	Main tasks	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6	Period 7
1	Build a model of the machine		X	X				
2	Write Plot and the script	X	X					
3	Draw the Storyboard	X						

		C1	C2	C3	C4	C5	C6	C7
4	Think and prepare the Recording Plan	X						
5	Record				X			
6	Act				X			
7	Editing Proces					X	X	X
8	Integration FX					X	X	X
9	Make some marketing		X				X	

Figure 4 : Project Milestones

Milestone	Date
Model and clothes	December 2012
Script and Story finished	December 2012
Record finished	Febrary 2013
Project finished	July 2013

Financial Management

As it has been said on previous points the expenses I will have doing this project will be very small because the huge part of the material that I need to make the recordings will be from the University so I will don't have to pay for using it. By the moment the only thing that I will need to pay will be the materials to build the model of the machine and probably some clothes for the actors.

Because of this expenses will be available for me I will pay from my money and if it's something that I can't pay because of his price I will ask for help to family or University or, if it's necessary, to a bank.

Project Funding

With my money I will pay everything that has to be paid for doing my project.

Project Income & Expenditure

Nowadays it's difficult to take profit of a science fiction short film made by a student so by the moment I don't expect to have any income of money, a part of the surprise of win anyone of the contest where I will send my project. So basically I will pay and I won't expect to have my money back.

Risk Management

Figure 5 : Project Risk and Control Matrix

Significant Risk Area	Detail	Control Measure
Don't have the actors	There is one actor that now is living in Italy and it's possible that she can stay here to the recording	If she can come to the recording I will contact to another actress to do her part.
Don't have a nice weather days to record	Have a rainy or cloudy day	Change the days of the recording.
Have wrong recordings	Realize when I'm editing that something it's recorded wrong	If it's possible solve it with another scene and if not record again.
Have problems with the integration	Some of the things that I want integrate need a camera tracking and this it's difficult to do.	Watch some video tutorials form internet, ask for some help or try it until I can do it.

Exit Strategy

Once the project will be finished I will make a copy of all the documents on my PC or on a Hard Disc, so I would be able to change anything on the future, and also save a copy on a DVD.
The final document with the short film will be recorded on a DVD as well to everyone who wants to watch it can do it on a DVD player.
A part of the places where I will save all my work I believe that I would learn more things about special effects and how to make camera tracking. This knowledge will help me on future projects and also on professional projects that I will have to do on my professional life.
The administrative part I think will be the most easiest because I it will be the smallest part of my project so I don't think it will suppose a difficult.

1.- INT.HALL - DAY
Early in the morning, Pedro arrives to the studio and with
every new step he looks to his mates, who are working with
his projects. He is greeting everyone, the first is Ruben
who is drawing some plans of a building and is trying some
materials for his model.
PEDRO
¿Que hay Ruben? ¿Aun con el
edificio ese tan importante?
RUBEN
Pues ya ves, no hay quien tenga una
buena idea.
After Pedro looks at Kim. She is putting a new canvas to
start painting for his next exposition.
KIM
¿Estas son horas de llegar?
PEDRO
(entre risas)
Que quieres, hay trafico.
Pedro arrives to his table, he sits and after tidying up
some papers he turns on his PC. Few seconds after a meesage
appears on the PC announcing that the deadline of the
projects is on 2 days.
When he see it he talks to his mates about it and he starts
with his own project.
PEDRO
Chicos, sabeis que tenemos que
tener esto acabado dentro de 2 dias
¿no?
// **POINT OF VIEW SHOT** of Pedro
2.- INT.HALL - DAY
Now the action is seen as a public and not with the point
of
view of Pedro.
The 3 artists starts with his projects but despite they
work
hard they always are unhappy with what they done and some
times one of them discard his work to start again with
something differnt.
Time goes bye and anyone has anything good done when Pedro,
the writter, decides to take a break and goes to the
library, where the old projects are saved, to search for
inspiration.
(CONTINUA)
CONTINUACIÓ: 2.
// **OVER-THE-SHOULDER SHOT** of Pedro who is writting and
erasing what he writes.
// **OVER-THE-SHOULDER SHOT** of Kim whil she is painting. She
is trying to paint but she doesn't like what she paints and
start over again.
// **MID SHOT** of Ruben who is looking the materials and the

plans.
This 3 shots will be used as a temporal ellipses, to show
the pass of the time while thay are working.
// **MID SHOT** of Pedro. Is seen that he still doesn't have
any
good idea so he decides to stand up and leave the room.
3.- INT. LIBRARY - AFTERNOON
Some sunlight still enters by the small windows, everything
has dust. Pedro comes to the room and starts looking up
something that can help him to write his novel.
After looking many books, figures, boxes, etc. he finds a
small box. It's a brown box, full of dust and different to
the others, it looks like it was from another age. Full of
curiosity Pedro takes the box and after looking it with
calm
he puts it on the table and he opens the box. Inside is an
artefact unknown by Pedro, he takes it, look it and finally
put it on his head.
When he puts it on his head he feels that the artefact is
on
and he begins to imagine the story of his novel.
After this experience he goes to his table to start again
with his novel and he takes the artefact with him.
// **WIDE SHOT.** Is seen how Pedro is walking all over the
library searching anything that gives him inspiration.
The camera will close the shot until he finds the artefact.
// **CUT-IN SHOT** of the opening drawer where inside is the
box.
// **MEDIUM SHOT.** Pedro have the box in his hands, he put
inside the table, opens it and take the artefact to wear
it.
He feels the senstaion, unwears it, he puts another time
inside the box and goes to his table.
3.
4.- INT.HALL - AFTERNOON (PEDRO'S TABLE)
Pedro is sitting on his table, in front of his computer
with
a blank page. He looks to both sides to know what his mates
are doing and he decides to take the artefact and use it.
When he weas the artefact he experience a sense of
emptiness
that gives him the hability to concentrate only on the idea
that really is important. Pedro is now able to write the
story that he really is thinking because he doesn't have
any
distraction.
// **3/4 SHOT (between WS and MS).** Pedro is sitting on his
chair and he wears the artefact.He begins to write the
novel
and in a few minutes he has the novel finished.
// **CLOSE UP SHOT of the Computer.** This shot will open until

we can see the hands of pedro.
5.- INT.KIM'S OFFICE - AFTERNOON
Some canvas are on the floor, they are half painted and
some
of them are crossed. Kim is sitting looking by the window
and drinking some water when Pedro walks near to she.
PEDRO
¿como va la pintura?
KIM
Solo tienes que mirar, un desastre.
PEDRO
Ni una buena idea que plasmar
¿verdd?
KIM
(mostrandose decepcionada)
Aver si mirando por la ventana
consigo un poco de inspiración,
porque esto es frustrante.
PEDRO
Creo que tengo algo que puede
ayudarte.
KIM
No te ofendas pero tu escrives, no
se si puedes ayudarme a pintar.
PEDRO
Yo no, esto.
Kim turns to Pedro to know what is what he is giving to
she.
Pedro is giving the artefact.
(CONTINUA)
CONTINUACIÓ: 4.
KIM
Que es?
PEDRO
¿Confias en mi? Pruevalo.
On that moment Kim stands up and take the artefact. Pedro
helps her to wear it on her head.
When she wears it we can see how Kim is in front of the
canvas totally still but afer few second she begins to move
his head fro one side to the other and on the canvas the
painting is being done as it was a printer.
After 30 minutes Kim has finished her painting, she unwears
the artefact and she feels astonished of the painting.
KIM
Pedro, tenias razon. Es lo que
tenia en mente pero no era capaz de
plasmar.
After give thanks to Pedro they decide to lend the artefact
to Ruben.
// **WS.** The 2 artists are talking to each other.
// **MS of Kim.** When she picks the artefact.

// **WS.**
6.- INT.RUBEN'S OFFICE - AFTERNOON
The 2 artists goes to Ruben's office and Ruben looks to them
with a desperation face, he asks for help.
RUBEN
Decidme que teneis alguna buena
idea porque todas las que pienso no
hay manera de hacerlas realidad.
KIM
Creo que tenemos algo mejor.
RUBEN
¿Un becario?
PEDRO
No, esto. Solo pontelo y piensa en
una de esas ideas que no te salen.
Ruben takes the artefact from Pedro and he follow Pedro's
instructions. He walks to get in front of the plans and the
(CONTINUA)
CONTINUACIÓ: 5.
model and, despite he seems to be in a state of shock, his
body begins to build the model of the building while on the
paper the plans are being drawed at the same time he does
something new on the model.
Pedro and Kim decide to let it work and they go to his own
tables to tidy up and go home.
Time runs and they are going home when Ruben finishes the
project.
PEDRO
Ruben, nosotros nos vamos para
casa.
RUBEN
Vale. Ya cerrare yo, no os
preocupeis.
// **WS of Ruben.** Ruben is working and behind him his mates
enter to his office.
// **MS of Ruben.** When he wears the artefact.
-- Fade to black --
7.- INT.RUBEN'S OFFICE - NIGHT
Everyone of his mates has left home and Ruben is still on
his office looking the artefact with avarice face.
After a detailed looking he wears it another time and
following the same proces of the model he begins to model
another object. In few seconds he had modeled a 500C bill.
On that moment Ruben recovers the awareness and on his
mouth
we can see a little malefic smile.
// **MS of Ruben.**
-- Fade to black --
8.- INT.RUBEN'S OFFICE - DAY
Next morning Ruben is on his office when Kim arrive at the

studio. She goes to greet Ruben.
KIM
Buenos dias Ruben.
RUBEN
Buenas.
(CONTINUA)
CONTINUACIÓ: 6.
KIM
(cortando a Ruben)
¿Y todo esto que tienes en la mesa?
RUBEN
La imaginación que es muy potente.
Kim thinks it's a little bit suspicious but she doesn't aks
anything, she decides tho close the door when she view that
Ruben is evasive. She goes to his table to start working.
// **WS.**
9.- INT.HALL - DAY
Pedro is the last one to arrive at studio. Once he arrive
he
leave his thinks on his tabe and gets shocked when he see a
blue light from the Ruben's office. When Kim see Pedro
ariving she goes to talk with him.
PEDRO
Oye, ¿tu sabes que esta pasando ahi
dentro?
KIM
Creo que Ruben ha estado utilizando
el artefacto toda la noche.
PEDRO
¿Y para que?
KIM
Creo que para nada bueno.
Both goes to Ruben's office and they try to enter but the
door is closed. Through the glass they see how Ruben is
using the artefact.
Ruben's office is full of bills, watches, mobile phones,
jewlery, scultures and more voluous objects. Kim and Pedro
are still trying to go inside when they realizes that with
every new object that Ruben models his body goes faster so
he is getting tired. Ruben starts sweating, he feels more
and more exhausted and he has a painfull face.
KIM
Parece que esta perdiendo el
control de lo que hace!
Hay que entrar y quitarle esa
maquina de la cabeza!
(CONTINUA)
CONTINUACIÓ: 7.
PEDRO
Si se la quitamos asi como asi le
podriamos dañar el cerebro.

Mientras pensamos que hacer voy a
buscar las llaves de la puerta.
KIM
Esta bien, pero date prisa!
// **WS.**
// **3/4 S of Kim and Pedro by tehir back.** The inside of the
office is seen through the glass and between the 2 artists.
// **WS.**
10.- INT.RUBEN'S OFFICE - DAY
Every time more and more objects are on the table and Ruben
is getting more and more exhausted. Though the glass is
seen
how Pedro and Kim are trying to open the door with the keys
that Pedro has gone to take. Few seconds later they finally
come in.
PEDRO
Vale, y ahora ¿como lo paramos?
KIM
¿Como dijiste que funconaba la
maquina esta?
PEDRO
Parece ser que hace realidad tus
ideas.
While they are talking to each other they are walking from
one side to other thinking a solution.
KIM
(se ha quedad mirando
fijamente a un enchife)
¿Y si lo sobrecargamos?
PEDRO
¿como?
KIM
Dices que hace realidad tus
ideas... pues demosle ideas hasta
que no pueda procesarlas todas.
(CONTINUA)
CONTINUACIÓ: 8.
PEDRO
Nose si dara resultado... ademas
podriamos dañarle a él.
KIM
¡¿Se te ocurre algo mejor?!
Both get closer to Ruben and they start shouting ideas.
PEDRO
Raton! Paraguas! Bota! Cartera!
Ventana! Disco!
KIM
Nieve! Hielo! Botella! Mesa! Gorra!
Boli!
PEDRO
Brazalete! Ordenador! Coche!

Estadio! Avión!
KIM
Amor! Felicidad! Cariño! Ternura!
While Ruben gets new ideas he models more faster to have
time to model every new idea. Finally the artefact is
overloaded and Ruben falls faint.
// **WS.**
// **CU of Kim and Pedro.**
// **MS of Ruben.**
// **WS.** Kim and Pedro begin to shout ideas to Ruben.
11.- INT. HOSPITAL ROOM - AFTERNOON
A month has passed, Ruben is in coma on the Hospital and
Pedro goes to visit him every day after work.
Finally Ruben wakes up, open his eyes slowly and babble
some
words
RUBEN
¿Que...? ¿Que me ha pasado?
PEDRO
Ruben, por fin despiertas! ¿Estas
bien?
(CONTINUA)
CONTINUACIÓ: 9.
RUBEN
¿Donde estoy?
PEDRO
Estas en el hospital. Abusaste de
esa maquina y sufriste un accidente
por su culpa. Llevas un mes en
coma.
PEDRO
(deja unos instantes de
silencio)
¿Recuerdas algo?
RUBEN
Lo ultimo que recuerdo es mi mesa
llena de cosas y a Kim diciendome
buenos dias.
(mostrando sintomas de
dolor al intentar recordar
mas)
Y nada mas...
PEDRO
En cuanto salgas de aqui tienes que
deshacerte de la maquina.
Pero de momento recuperate.
Pedro stand up, call the nurse and he leave teh room.
Some shots of Pedro leaving the Hospital and going to his
car.
// **WS.**
// **CU of both,** special to Ruben.

-- Fade to black --
12.- INT.RUBEN'S OFFICE - NIGHT
A week later Ruben goes to his office, where he fall in
coma
and some memories of that night come to his memory. On the
table there are some papers, the computer, some plans and
the artefact. He pick it and he looks it for some minutes.
While he is thinking about what he did with the artefact he
hears a familiar voice.
KIM
Me alegra volver a verte por aquí,
aunque espero que no sea para
trabajar eh!
(CONTINUA)
CONTINUACIÓ: 10.
RUBEN
Solo he venido para ver si podia
recordar algo de lo que paso.
KIM
Y a deshacerte de eso ¿verdad?
RUBEN
(contrariado pero evasivo)
Claro, claro. No quiero volver a
tener problemas con ella.
// **MS of Ruben.**
// **WS.** When Kim apears on the alley.
13.- EXT. STREET - NIGHT
Ruben leave the studio. On his hands he brings the
artefact.
He goes to his car where he takes a little bag for the
artefact. After that he goes to a small alley, he goes a
little deep into the alley, take a bucket from the alley
and
take a fire and a bottle of alchool from his coat.
On that moment from the other side of the alley Kim begins
to walk to him.
Ruben burns inside the bucket, he takes the bag and strt
walking to his car. While he is walking Kim take him from
the waist.
On that moment a weak blue light lights inside the bag.
THE END
// **3/4 S of Ruben.**
// **CUT-IN of fire.**
// **WS.**
-- Fade to the blue light --

```
1.- INT.VESTIBULO - DIA
```
Primera hora de la mañana, Pedro entra a la oficina y poco a
poco va observando como sus compañeros ya han llegado y estan ya trabajando con sus proyectos. Sin dejar de andar hacia su mesa los va saludando, primero saluda a Ruben, quien esta dibujando los planos de una edificio y provando algunos materiales para su maqueta.

PEDRO
¿Que hay Ruben? ¿Aun con el edificio ese tan importante?

RUBEN
Pues ya ves, no hay quien tenga una buena idea.

Luego Pedro saluda a Kim, la que esta cambiando de lienzo para empezar de nuevo otra pintura para su proxima exposición.

KIM
¿Estas son horas de llegar?

PEDRO
(entre risas)
Que quieres, hay trafico.

Pedro llega por fin a su mesa, se sienta y despues de poner agunos papeles en orden eniende su ordenador. Al hacerlo un mensaje aparece por encima de toto avisando que la fecha limite para entregar los proyectos es dentro de 2 dias.
Al verlo lo comenta con sus compañeros la fecha y se pone a trabajar en su libro.

PEDRO
Chicos, sabeis que tenemos que tener esto acabado dentro de 2 dias
¿no?

// **PLANO SUBJETIVO** Pedro

```
2.- INT.VESTIBULO - DIA
```
Se deja de ver la acción desde el punto de vista de Pedro para verla como expectador.
Los tres artistas se ponen a trabajar en sus proyectos pero por mucho que hacen no avanzan e incluso en algun caso deshechan todo el trabajo para empezar nuevamente de zero.
Las horas pasan y ninguno de los tres tiene ningun avance significativo cuando Pedro, el escritor, decide tomarse un respiro y bajar al sotano a buscar entre proyectos mas antiguos algo que le sirva de inspiración.
(CONTINUA)

CONTINUACIÓ: 2.
// **PLANO ESCORZO** de Pedro, quien esta escriviendo y borrando
todo lo que esrive.
// **PLANO ESCROZO** de Kim mientras pinta. Intenta pintar pero lo que le sale no le gusta y vuelve a empezar.
// **PLANO MEDIO FRONTAL** de Ruben, quien esta mirando los

materiales y los planos.
// **PLANO MEDIO** de Pedro. Se ve como continua sin tener
ninguna buena idea hasta que decide levantarse e irse.
3.- INT. SOTANO - TARDE
Entran algunso rayos de sol aun por las pequeñas ventanas
que hay en la pared, todo esta lleno de polvo. Pedro entra
en la habitación y empieza a buscar entre todo lo que
encuentra algo que le pueda servir como inspiración para su
nueva novela.
Despues de mirar i mirar entre libros, figuras, cajas, etc.
encuentra una cajita relativamente pequeña. Es una caja
marron, llena de polvo y diferente a las demas cajas,
parece
de otra epoca. Con curiosidad Pedro la coje y empieza a
mirarla hasta que por fin la deja encima de un mueble y la
abre. En su interior se encuentra un artefacto desconocido
para Pedro, este lo coje y lo examina hasta que comprende
que por su forma parece ir puesto en la cabeza. Al
ponerselo
nota como se activa y como empieza a imaginar la historia
para su novela.
Al experimentar esta sensacion se lo quita y sube a su mesa
para empezar a escrivir la novela.
// **PLANO GENERAL.** Se ve como pedro esta recorriendo las
estanterias en busca de alguna cosa que le pueda servir de
inspiración.
La camara va cerrando plano hasta que Pedro encuentra la
caja que contiene el artefacto.
// **PLANO DETALLE** del cajón abriendose donde dentro esta la
caja, que posteriormente Pedro coje.
// **PLANO MEDIO.** Se ve como Pedro tiene la caja en sus
manos,
la deja sobre un mueble, la abre y de su interior saca el
artefacto que posteriomente se pone. Experimenta la
sensación. Se lo vuelve a quitar, lo guarda dentro de la
caja y se va dirección al estudio.
3.
4.- INT.VESTIBULO - TARDE (MESA PEDRO)
Pedro esta sentado en su mesa, delante del ordenador con la
pagina en blanco. Mira hacia ambos lados para ver que estan
haciendo sus compañeros y decide coger el artefacto que ha
encontrado en el sotano y ponerselo. Al ponerselo Pedro
experimenta una sensación de vacio interior que a la vez le
proporciona la habilidad de centrarse solo en la idea que
realmente importa. Pedro es capaz ahora de escrivir la
historia que realmente esta pensando sin tener ninguna
distracción.
// **PLANO 3/4 FRONTAL** de Pedro. Pedro se sienta en su silla
y
se pone el artefacto. Comienza a escrivir la novela y en
10min ya la tiene acabada.

// **PRIMER PLANO ORDENADOR --> PLANO 3/4**
Este plano empieza desde un PP y se va abriendo a un plano
3/4 para ver como los dedos de Pedro van escriviendo la
novela.
// **P. 3/4 FRONTAL.** Vuelta al plano anterior de Pedro para
acabar la escena.
5.- INT.DESPACHO KIM - TARDE
En el suelo varios lienzos a medio pintar y algunos de
ellos
arrugados. Kim esta sentada mirando por la ventana bebiendo
un poco de agua cuando Pedro se acerca a ella.
PEDRO
¿como va la pintura?
KIM
Solo tienes que mirar, un desastre.
PEDRO
Ni una buena idea que plasmar
¿verdd?
KIM
(mostrandose decepcionada)
Aver si mirando por la ventana
consigo un poco de inspiración,
porque esto es frustrante.
PEDRO
Creo que tengo algo que puede
ayudarte.
KIM
No te ofendas pero tu escrives, no
se si puedes ayudarme a pintar.
(CONTINUA)
CONTINUACIÓ: 4.
PEDRO
Yo no, esto.
Kim se gira hacia Pedro para ver que es lo que le ofrece.
Pedro esta de pie extendiendole el artefacto.
KIM
Que es?
PEDRO
¿Confias en mi? Pruevalo.
En ese momento Kim se levanta y coge el artefacto, Pedro le
ayuda a ponerselo en la cabeza.
Al ponerselo se ve como Kim se queda quieta unos instantes
delante del lienzo en blanco y con tan solo mover su cabeza
este se empieza a pintar como si de una impresora se
tratara.
Pasada media hora Kim por fin ha acabado el cuadro que
tenia
que pintar, se quita el artefacto y se queda asombrada de
la
pintura que ha realizado.
KIM

Pedro, tenias razon. Es lo que
tenia en mente pero no era capaz de
plasmar.
Despues de agradecerle a Pedro su ayuda deciden ir los dos
a
dejarle el artefacto a Ruben para que él tambien pueda
terminar su proyecto.
// **PLANO GENERAL.** Los dos artistas estan hablando.
// **PLANO MEDIO de KIM.** Cuando esta coje el artefacto.
// **PG**
6.- INT.DESPACHO RUBEN - TARDE
Los dos artistas entran en el despacho de Ruben y este los
mira con cara de desesperación para pedirles ayuda.
RUBEN
Decidme que teneis alguna buena
idea porque todas las que pienso no
hay manera de hacerlas realidad.
KIM
Creo que tenemos algo mejor.
(CONTINUA)
CONTINUACIÓ: 5.
RUBEN
¿Un becario?
PEDRO
No, esto. Solo pontelo y piensa en
una de esas ideas que no te salen.
Ruben coge el artefacto que Pedro le da y sigue sus
instrucciones. Se pone delante de los planos y de la
maqueta
que tiene que realizar y aunque aparentemente parece estar
en un estado de trance su cuerpo empieza a construir la
maqueta del edificio mientras que en se dibujan los planos
a
medida que se construye la maqueta.
Pedro y Kim deciden dejarlo trabajar y se van a sus
respectivas mesas para empezar a recoger y irse para casa.
Pasan los minutos y los dos terminan de recoger sus cosas,
Ruben ha acabado ya su maquesta y sus planos y esta
trabajando con su ordenador mientras sus compañeros se
marchan para casa.
PEDRO
Ruben, nosotros nos vamos para
casa.
RUBEN
Vale. Ya cerrare yo, no os
preocupeis.
// **PLANO AMERICANO – GENERAL.** Se ve como Ruben esta
trabajando y por detras de el sus compañeros entran por la
puerta.
// P**LANO MEDIO.** Cuando Ruben se pone el artefacto.
--- Fundido a negro ---

7.- INT.DESPACHO RUBEN - NOCHE
Todos sus compañeros de trabajo se han ido a casa y Ruben
sigue en su despacho contemplando con cara de avaricia el
artefacto que rato antes Pedro y Kim le han prestado para
realizar su proyecto.
Despues de observarlo detenidamente se lo vuelve a poner y
realizando el mismo proceso que con la maqueta que ha
construido anteriormente empieza a moldear un objecto. En
pocos segundos se puede ver como el moldeado a cobrado la
forma de un billete de 500C.
En ese instante Ruben recupera la consciencia y deja
entrever una sonrisa un tanto malevola.
// PLANO MEDIO RUBEN.
6.
8.- INT.DESPACHO RUBEN - DIA
Al dia siguiente Ruben se encuentra en su despacho cuando
Kim llega al estudio. Entra a saludarle.
KIM
Buenos dias Ruben.
RUBEN
Buenas.
KIM
(cortando a Ruben)
¿Y todo esto que tienes en la mesa?
RUBEN
La imaginación que es muy potente.
Kim se queda extrañada pero no pregunta, decide cerrar la
puerta al ver que Ruben se muestra un tanto distante y se
va
hacia su propio despacho para seguir con su propio
proyecto.
// PG.
9.- INT.VESTIBULO - DIA
Pedro es el ultimo en llegar al estudio. Nada mas llegar
deja sus cosas en su mesa y se queda extrañado al ver una
debil luz azul que proviene del despacho de Ruben. Kim al
verle llegar se dirige a él.
PEDRO
Oye, ¿tu sabes que esta pasando ahi
dentro?
KIM
Creo que Ruben ha estado utilizando
el artefacto toda la noche.
PEDRO
¿Y para que?
KIM
Creo que para nada bueno.
Los dos se dirigen hacia el despacho de Ruben e intentan
entrar en el pero la puerta esta cerrada. A traves de los
cristales se puede ver como Ruben esta usando la maquina y
por tanto no puede responder a sus llamadas.

El despacho de Ruben se ve lleno de billetes, relojes,
mobiles, joyas, esculturas y de mas objetos de valor. Kim y
Pedro siguen fuera en el vestibulo y se dan cuenta que a
(CONTINUA)
CONTINUACIÓ: 7.
cada nuevo objecto que Ruben hace su velocidad aumenta y su
estado se deteriora. Ruben empieza a sudar, a mostrar
sintomas de cansancio y su expresion facial muestra cada
vez
mas dolor.
KIM
Parece que esta perdiendo el
control de lo que hace!
Hay que entrar y quitarle esa
maquina de la cabeza!
PEDRO
Si se la quitamos asi como asi le
podriamos dañar el cerebro.
Mientras pensamos que hacer voy a
buscar las llaves de la puerta.
KIM
Esta bien, pero date prisa!
// PG.
// **PLANO AMERICANO** de los dos artistas de espaldas. Se ve
el
interior del despacho a través del vidrio y de los dos
artistas.
// **PG.**
10.- INT.DESPACHO RUBEN - DIA
Cada vez hay más y más objetos encima la mesa y Ruben cada
vez esta mas cansado. Por el ventanal se ve como Pedro y
Kim
estan intentando abrir la puerta con las llaves que Pedro
ha
ido a buscar. Pocos segundos despues estos consiguen
entrar.
PEDRO
Vale, y ahora ¿como lo paramos?
KIM
¿Como dijiste que funconaba la
maquina esta?
PEDRO
Parece ser que hace realidad tus
ideas.
Mientras hablan entre si los dos se van moviendo de un lado
al otro del despacho pensando en una posible solucion para
el problema.
KIM
(se ha quedad mirando
fijamente a un enchife)
(MÉS)

(CONTINUA)
CONTINUACIÓ: 8.
KIM (continuació)
¿Y si lo sobrecargamos?
PEDRO
¿como?
KIM
Dices que hace realidad tus
ideas... pues demosle ideas hasta
que no pueda procesarlas todas.
PEDRO
Nose si dara resultado... ademas
podriamos dañarle a él.
KIM
¡¿Se te ocurre algo mejor?!
Los dos artistas se acercan a Ruben y empiezan a gritarle
ideas.
PEDRO
Raton! Paraguas! Bota! Cartera!
Ventana! Disco!
KIM
Nieve! Hielo! Botella! Mesa! Gorra!
Boli!
PEDRO
Brazalete! Ordenador! Coche!
Estadio! Avión!
KIM
Amor! Felicidad! Cariño! Ternura!
A medida que sus compañeros le van diciendo ideas Ruben
empieza a realizarlas cada vez tan rapido hasta que
finalmente el artefacto falla y el cae desmayado al suelo.
// **PG.**
// **PRIMER PLANO** de los 2 (Pedro y Kim).
// **PM** de Ruben.
// P**G**. Pedro y Kim empiezan a gritarle ideas a Ruben.
9.
11.- INT. HABITACION HOSPITAL - MEDIODIA
Ha pasado un mes desde el incidente en el despacho, Ruben
esta en coma en el hospital y Pedro lo visita cada dia
despues de salir de trabajar.
Por fin Ruben despierta, abre los ojos lentamente y
balbucea
algunas palabras.
RUBEN
¿Que...? ¿Que me ha pasado?
PEDRO
Ruben, por fin despiertas! ¿Estas
bien?
RUBEN
¿Donde estoy?
PEDRO

Estas en el hospital. Abusaste de
esa maquina y sufriste un accidente
por su culpa. Llevas un mes en
coma.
PEDRO
(deja unos instantes de
silencio)
¿Recuerdas algo?
RUBEN
Lo ultimo que recuerdo es mi mesa
llena de cosas y a Kim diciendome
buenos dias.
(mostrando sintomas de
dolor al intentar recordar
mas)
Y nada mas...
PEDRO
En cuanto salgas de aqui tienes que
deshacerte de la maquina.
Pero de momento recuperate.
Pedro se levanta, llama a la enfermera y se marcha de la
habitación.
Seguidamente se ve como Pedro sale del hospital y se dirige
a su coche por medio de la calle.
// **PG.**
(CONTINUA)
CONTINUACIÓ: 10.
// **PP de los dos,** en especial de Ruben.
--- Fundido a negro ---
12.- INT.DESPACHO RUBEN - NOCHE
Ha pasado una semana desde que Ruben volvio del coma. Se
encuentra otra vez en el lugar de los hechos, a su mente
vienen pequeños recuerdos de esa noche. En la mesa hay
algunos papeles sueltos, el ordenador, unos rollos y la
maquina que le causó todo esto. Él la coge y se queda unos
minutos inspeccionandola y recordando todo lo que hizo con
ella.
Mientras esta pensando en todo eso una voz lo devuelve a la
realidad.
KIM
Me alegra volver a verte por aquí,
aunque espero que no sea para
trabajar eh!
RUBEN
Solo he venido para ver si podia
recordar algo de lo que paso.
KIM
Y a deshacerte de eso ¿verdad?
RUBEN
(contrariado pero evasivo)
Claro, claro. No quiero volver a

tener problemas con ella.
// **PM** de Ruben.
// **PG** en cuanto aparece Kim.
13.- EXT. CALLE - NOCHE
Ruben sale del estudio. En sus manos lleva el artefacto. Se
dirige a su coche y coge una pequeña bolsa donde pone el
artefacto. Entonces se gira y se dirige a un pequeño
callejón que hay al lado del estudio, camina un poco hacia
dentro del callejón, coge un pequeño cubo de metal que hay
en el suelo y tira el artefacto dentro. Se vuelve otra vez
hacia la bolsa y saca un paquete pequeño de cerillas y una
botella pequeña con la que empieza a rociar el interior del
cubo.
En ese instante por la entrada del callejón se ve a Kim
acercandose a él.
Ruben enciende por fin el fuego, recoge su bolsa y se aleja
del cubo otra vez hacia el coche. De camino Kim lo coje por
los hombros, a modo de abrazo, y los dos se dirigen hacia
(CONTINUA)
CONTINUACIÓ: 11.
los coches. En ese momento una pequeña luz azul brilla en
el
interior de la bolsa que Ruben lleva colgada.
FIN
// **PA** de Ruben.
// **PD** del fuego.
// **PG**.
--- Fundido a negro ---

Storyboard trailer

T_SB StoryBoard

Scene	Duration	Panel	Duration
2_B	05:00	1	05:00
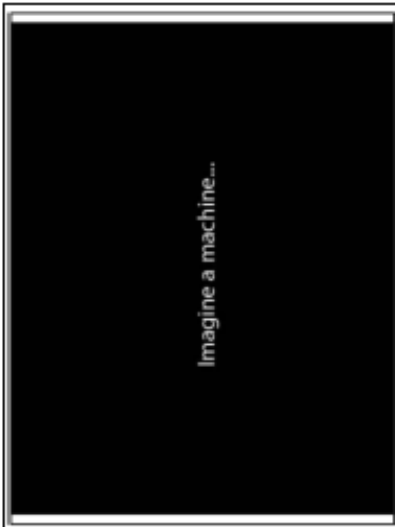
Imagine a machine...

Dialogue
Imagine a machine...

Action Notes
The text will appear letter by letter starting from de left.

Dissolve — Duration 01:00
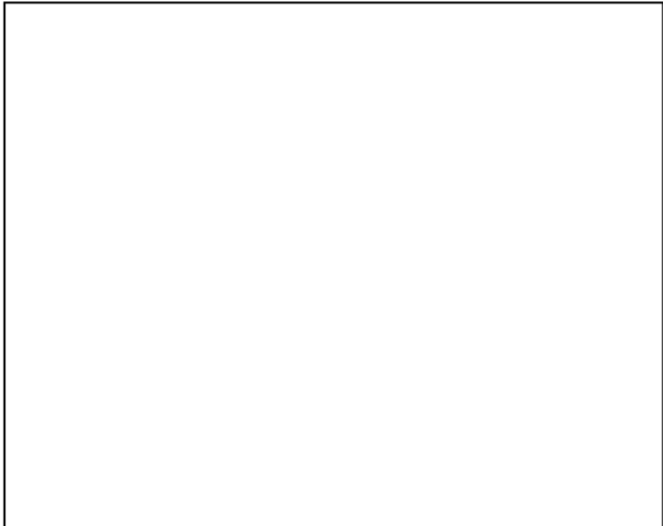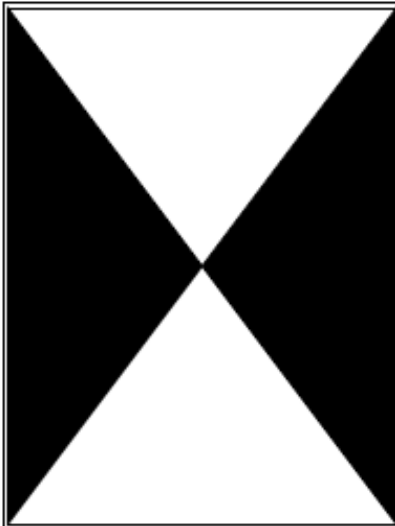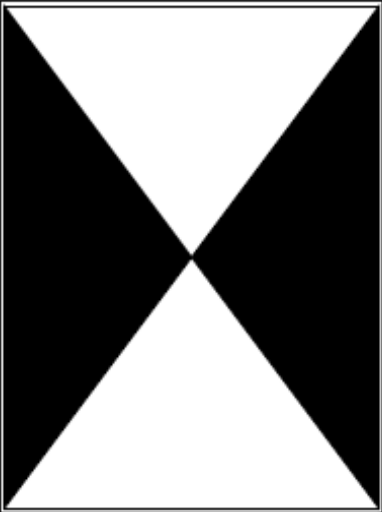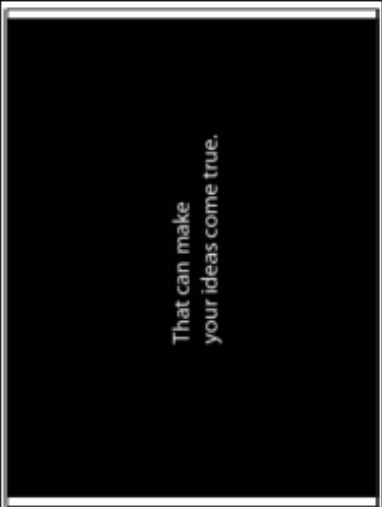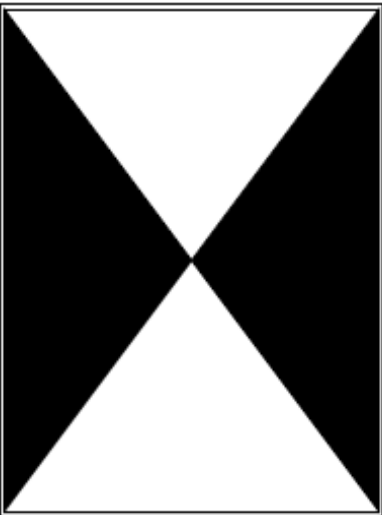
Scene	Duration	Panel	Duration
3	05:06	1	05:06
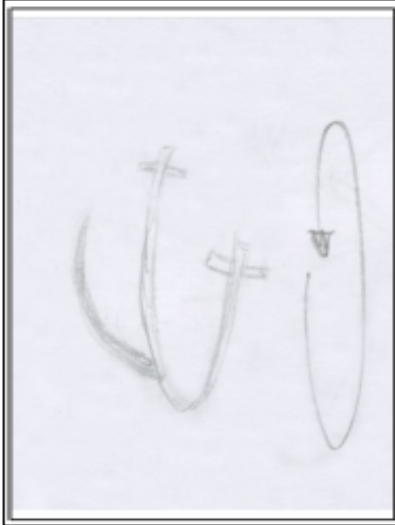
Action Notes
A view of the machine while it is rotating. Just to view jow it is the machine.

Notes
The background has a dark colour.

Storyboard trailer

T_SB StoryBoard

Scene	Duration	Panel	Duration
4	05:00	1	05:00

Dissolve | Duration 01:00

That can make
your ideas come true.

Dissolve | Duration 01:00

Dialogue
that can make your ideas come true.

Action Notes
The text will appear letter by letter
starting from de left.

Storyboard trailer

T_SB StoryBoard

Scene	Duration	Panel	Duration
6	07:00	1	07:00

Action Notes
Here we can see a painter who is trying to paint in his canvas but he is still without any good idea to paint. He is looking around to get a piece of inspiration.

Slugging
He is a little bit upset because he doesn't know how to get inspiration.

Camera
The camera starts doing a close shot of the paint and hands of the character and slowly goes back to show all the scene.

Dissolve	Duration
	01:00

Scene	Duration	Panel	Duration
5	07:00	1	07:00

Action Notes
There's a writer who is trying to write a novel but he is in front a blank page without any good idea. It's late at night.

Slugging
The writer is stressed because he doesn't have the inspiration he need to write a good piece.

Notes
Instead he is in front of a window the only light he has is from de lamp.

Camera
In this scene there's a camera movement that goes from a close shot of the blank page to a shot of the hole scene, showing the writer and all his study.

Storyboard trailer

T_SB StoryBoard

Dissolve
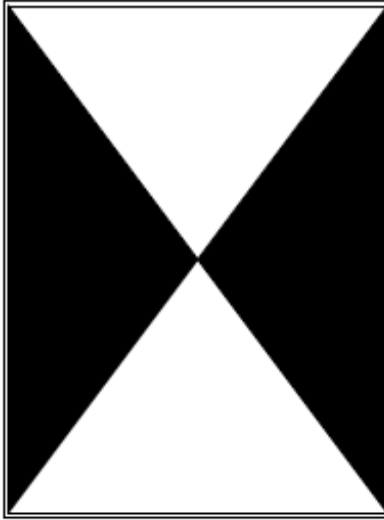
Duration 01:00

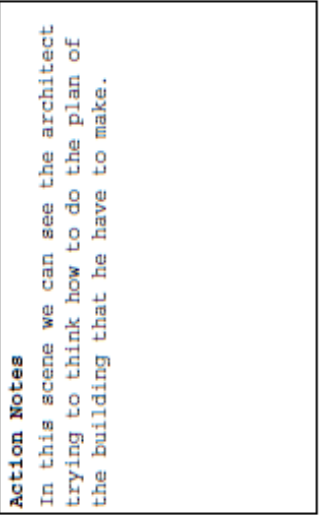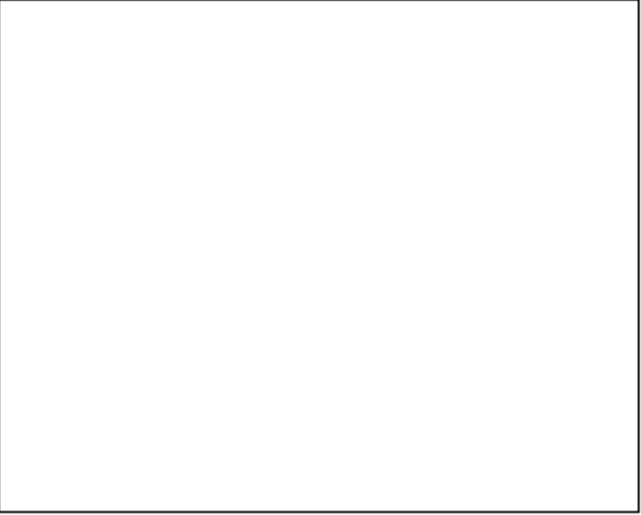Scene 8 | Duration 07:00 | Panel 1 | Duration 07:00

Action Notes

In this scene we can see the architect trying to think how to do the plan of the building that he have to make.

slugging

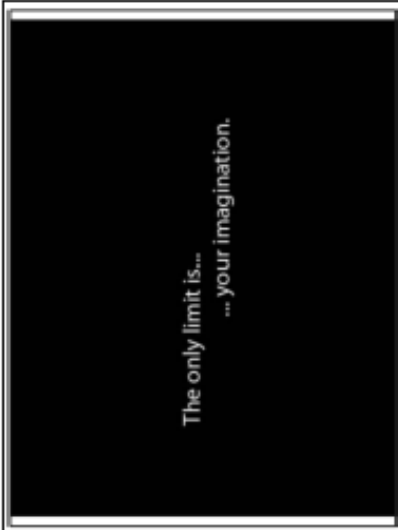He is bored of thinking and finally he feel depressed in front of the window.

Dissolve

Duration 01:00
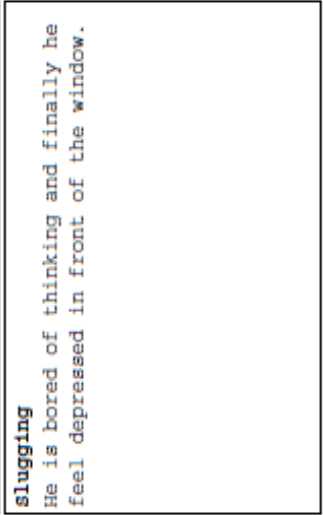
T_SB StoryBoard

Scene	Duration	Panel	Duration
2_E	05:04	1	05:04

The only limit is...
... your imagination.

Dialogue

The only limit is...
... your imagination.

Action Notes

In this case first appears the first sentence (the only limit is...) and after a few seconds the other sentence (... your imagination).


Scene	Duration	Panel	Duration
9	04:08	1	04:08
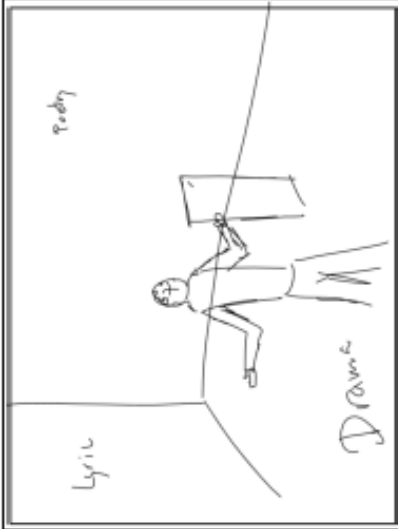
Action Notes

Here we can see the writer wearing the machine in hgis head and his ideas floating around him forming an sphere. He can see all his ideas and when he see a good idea he catch it and put into the holographic paper he has in front of him to make his novel.

Slugging

We can see that he is happy and enjoying his work because he takes his work like a play.

Camera

In this case the camera will do a lateral travelling to show how the ideas move around him and how the architect looks around to find the best idea for this moment.

Scene	Duration	Panel	Duration
10	03:03	1	03:03
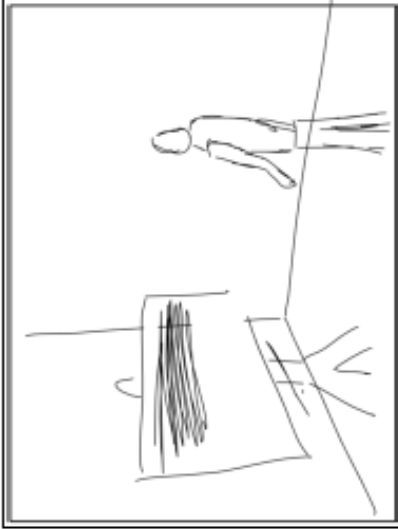
Action Notes

The painter is painting with his own hands as a brushes like if he were using a software of painting like Photoshop.

Slugging

We can see that he is enjoying the work because he looks happy while he interactuates with the holographic interface of the paint.

Camera

There is no camera movement yet.

T_SB StoryBoard

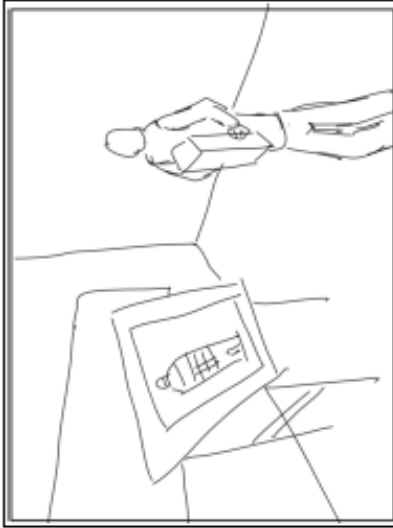| Scene	Duration	Panel	Duration
11	04:03	1	04:03

Action Notes
In this scene the architect is sitting on his chair of the study and he have a holographic cube on his hands and the plans are still in the table.
He starts modeling the cube to get a beautiful building and every change he do in the cube is drawn automatically on the plans of the table.

Slugging
We look that he is very concentrated and he is going well.

Camera
In this scene the camera will convine large shots of the scene and a different closer shots of the hands and cube, for one hand, and a shots of the plans.
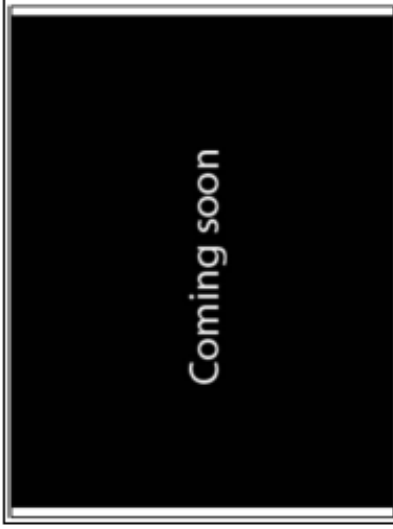
Scene	Duration	Panel	Duration
12	05:07	1	05:07

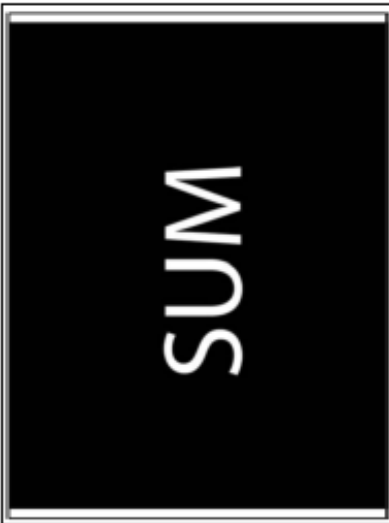| Scene	Duration	Panel	Duration
13_A	03:11	1	01:07

Coming soon

Dialogue
Coming soon.

Action Notes
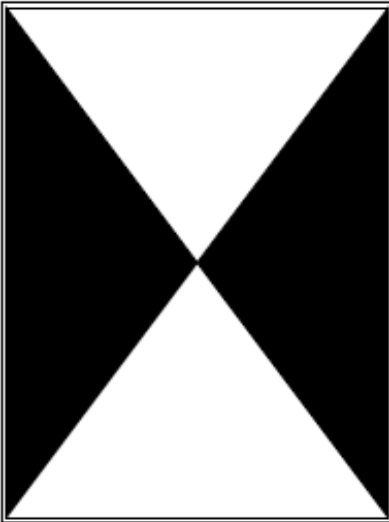Here will appear firstly the words "Coming soon" and later, on the same place the name the short film.

Storyboard trailer

Scene	Duration	Panel	Duration
14	01:01	1	01:01

Dissolve   Duration 01:00

	T_SB StoryBoard		
Scene	Duration	Panel	Duration
13_A	03:11	2	02:04

SUM

Dialogue
SUM