

FINAL YEAR THESIS

**Product visualization using computer generated imagery,
Developing 3D Models, Animation, Texturing and Audio**

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This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in Multimedia and Creative Technology

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DAFFODIL INTERNATIONAL UNIVERSITY

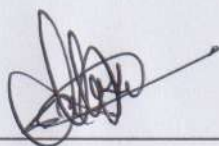
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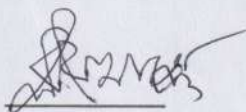
This Project titled “**Product visualization using computer generated imagery, Developing 3D model, Animation, Texturing and Audio**”, submitted by Md. Ashikuzzaman Rony to the Department of Multimedia and Creative Technology, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Multimedia and Creative Technology and approved as to its style and contents. The presentation has been held on December 26, 2019.

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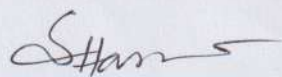
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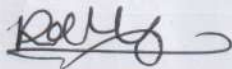
We hereby declare that, this project has been done by us under the supervision **Arif Ahmed, Adjunct Associate Professor, Department of MCT** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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I owe everything to my family who encouraged and helped me at every stage of my personal and academic life and longed to see this achievement come true. I dedicate this work my sincere and generous father and my loving mother. Every breath of my life and drop of blood in my body is dedicated to my family. I love you all.

ABSTRACT

The project aims to create a short product animation of a smart phone. Which can be used for the purpose of advertisement and attracting consumer attention. The entire project was created using CGI (computer generated imagery) technology. My part on the project consisted of creating the 3D models, animation, texturing and audio for the project. Which were used for creating the assets such as the phone itself, creating movements and texturing the final image all in 3D creating some interesting movement for our audience attraction. It was done using tools and techniques such as hard surface modeling, texture the model based on the product we are want to follow one gradient but final output also we prepared four color variation also make the background music, The whole mood of the advert depend on the Music keep the mind engaged with the advert. We have tried to keep the advertising interesting. In future, the project can show people of different industries the capability of CGI to produce attractive advertisements for products.

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Using computer generated imagery of mobile Adverting.

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CHAPTER – 1

INTRODUCTION

1.1 Introduction:

Animation is about generating sequential drawings or pictures by way of various procedures for creating movement. It creates an optical illusion through which we are able to see still images or drawings rapidly moving. Animation is the only medium that can bring our fantasies to life. 3d animation is the future with the advance of technology such as AR and VR. This took our entertainment sector to a new high and connecting real and virtual with the help of 3d. Making 3d animation is complex and timing consuming process. Every Elements has to have an accurate value to make a realistic 3d animation.

Artists and Filmmakers uses Computer Generated Imagery (CGI) as a tool to better tell their stories in abstract ways. CGI is not just computer-generated imagery but also combination of thoughts, designs, experiments, and art of artist. In recent years the use of ‘Computer Generated Imagery’ (CGI) in advertisement industry has grown immensely. A big percentage of advertising industry is adopting CGI for better telling their stories. Now a Days Big Mobile phone companies such as Samsung, Apple, Xiaomi, Huawei uses high quality CGI advert to attract its consumer. Such as Galaxy S10 advert of 2019^[1], Redmi Note7 of Xiaomi brand ^[2,3]., iPhone x ^[4,12].

Apple, Samsung, Xiaomi, Huawei Makes high quality standard 3d advert. Their most of the 3d advert are more simple, attractive, entertainment and communicative. Their short duration 3d adverts says thousand words. The numerous features of the phone are conveyed effectively to the viewer which boosts product selling chances. Brands 3d advert deliver a realistic virtual showroom experience on mobile. Now a day’s people’s like to watch the latest feature available Offered by their favorite brands and 3d advert offering them more attractive and dynamic visualization.

This project report displays the review of working process of making a standard mobile advertising with the help of different techniques and 3d software’s. The report is the guide for the making a CGI mobile advert animation that portrays modelling to animation of the product and final output for customers in the market. The animation has to very eye catchy. So that it can attract viewer attention and hold it. Syncing the animation to music can help achieve this. It will also add a rhythm to the animation making it look much more interesting. I will have to aim for snappy and fluid motions during the

animation to achieve a good fun quality of animation. Cinema 4d ^[14] will be my choice in animating the advert, as it good for motion and abstract art making.

1.2 Project Goals:

The goal of this project is to create a CGI Advertisement which portrays mobile phone features in abstract, attractive, entertainment and commutative manner. Our country is still quite behind in producing good quality CGI for product advertisement. Often Bangladeshi mobile adverts fail to fulfil its purpose compare to others outside of country. Local mobile companies are also unaware of the uniqueness of 3d advert standard in recent mobile industry. There is a huge market for advertisements in Bangladesh. It is rapidly growing. Expected to grow by \$457 million between 2017 and 2020. This report clarifies the step by step to create a standard mobile advert which can be compared with outside advert of our country, Also branding for out mobile phone companies.

Mobile CGI Adverts is generally fun to watch and creates a higher viewer engagement than traditional adverts. It helps us to be a lot more creative as we can present almost anything in animation, we don't have to stick to what is realistic or possible as you would with live. As 3d is developing in Bangladesh, in future it will be create a great impact in Bangladesh. With CGI, we can show our product from all angles, in different colors, and in all variations.

live-action advertisements are time-consuming process than Animation. We can immediately edit an animated work but the actual video editing when the work must be done after the initial shooting. Investing in animated advertising can give local mobile companies a much larger return while still providing a means to attract our country customers.

1.3 Target Audience:

Our target audience this project are young people of age from 18 to 35 people who loves to see attractive features and pleasing color with their taste for their phones. Communicating with audience is the primary target for this advisement. The goal is to establish interest and mind set to buy the tempting upcoming mobile. With this in mind we have decided to use gradient color for our phone advertisement and keep it in one gradient color because it catches eyes, gives different tone, vibe for taste of youth and gradient color are more expressive the traditional one solid color .We have used gradient color of purple and sky blue where purple is used to express royalty, power, ambition, independence, peace, pride, mystery, and magic. On the other hand, blue used for trust, loyalty, wisdom, confidence tranquility and calmness for the youth to middle age.

1.4 Project Timeline (Gantt chart):

Gantt is can be said as backbone and very important for any project to keep up with the plan. Gantt represent the Project schedules, Activities, Clear visibility of Dates and Time Frames and helps to effectively manage the Team. This graph is like a bar diagram where the works will be done are marked with bars from the being date to complete date of the final point of project. This project will take time span over a sixteen weeks schedule. The timeline is very tight so it has to be managed correctly and this the guide which will keep us on track.

Table-1.4.1: Gantt chart of Product visualization using computer generated imagery of mobile Adverting. My parts are highlighted in green.

			Week															
Number	Task	Total Duration (weeks)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
01	Research	1	█															
02	Brainstorming	1	█															
03	Concept development	6	█	█	█	█	█	█										
04	Collecting reference	3	█	█	█													
05	Storyboarding	2		█	█													
06	Modeling	4		█	█	█	█											
07	Texturing	7					█	█	█	█	█	█						
08	Lighting	5							█	█	█	█	█					
09	Animating	5									█	█	█	█	█			
10	Fx and Simulation	4										█	█	█	█			
11	Rendering	1														█		
12	Audio	2							█	█								
13	Editing	2															█	█

CHAPTER – 2

LITERATURE REVIEW

2.1 CGI Works In 3D Advertisement Industry:

3D advertisement is the recent industry standard for product visualization. 3D in advertising industry is offering a wide range scope for 3d artist to display their creativity, which is essential for attracting consumer at present 3d based generation. Popular mobile brands such as Samsung, apple, Xiaomi, Huawei, Oppo are successful at their sales through creating market value among its consumer with help of CGI based mobile Advertising and is one of their primary means for Advertising products for them. iPhone is focus on to take a giant leap forward in mobile photography giving extra edge to image quality with high resolution and zoom which was beautifully displayed in the promo for iPhone X [4,12]. Their camera angle, movement, color tone, transitions and blending shorts are inspiring and I will be focusing to get those kind of short in our advert.

Samsung is focused on their design and processing platform targeting business class people. Their main focus was extra-large display, elegant design, multitasking platform, also better camera quality, those features were attractively shown in their Galaxy S10 advert [1]. This type of work has inspired us to work on our short division of 3d Advert mobile. The color and concept brands uses for communicating and delivering for target are quite fantastic, holding rhythm to the animation is unique. The mobile 3d advert quality of our local brand far behind then of outside our country. Also, its hard to find any 3d advert for local brand such as Walton. Compare to outside brands our local band fails to create impression among user and our country is not developing in advert industry.

Recently, OPPO released a new series called Reno, hoping to encourage everyone to make life more imaginative through creativity.[5]. So, they hope to create a magical city, but the seemingly ordinary scene will be unexpectedly changed. The main feature of their product was the 10X optical zoom. So they tried a lot of exaggerated lens movements, hoping to let the audience intuitively feel the "zoom" experience.

Another china company which is creating great market value with their CGI 3d advert is Huawei[6]. There is more clear and simple target the core feature their giving to consumer such as dust/water resistance , longer battery etc. are amazingly visualized. Huawei p9 design work was inspiring in 2016[7]. Also honor 20 promo[8] where The fantasy environment and amazing imaginary animals are emphasized with stylized color and

lighting condition to create a variety of exotic tonality. Honor logo identity is created with growing exotic plants & owers. As the viewer camera gradually penetrates into the logo, the plants and owers start to grow plentifully, and they are shown in the whole screen. The variety of Wonder natures is displayed with Honor 20. Those kinds of color and abstract things should easily attract customer. Xiaomi is also has established them as high quality brand in asia. Their mobile 3d advert visualization is extra ordinary. such as the advert of Redmi K20 Pro^[9] , or Xiaomi Mi 2^[10], Xiaomi Redmi 5 ^[11]. The concept of their mobile was nicely presented with abstract design. All the features were abstractly presented and a smooth and cool color visualization is done matching their mobiles color.

Those types of work inspiring for 3d advert in advertising industry. As our country is in search of quality, if we can follow and deliver that kind of visualization, our country mobile can also get high market for 3d Advertising. As Bangladesh is getting familiar with 3d works, so our country brands need to acknowledge the important of 3d advert for showing more futuristic feature to audience and attract their attention.

2.2 Storyboarding:

Storyboard is used to step by step visual representation of our story, narratives, and sequence of events. It can be also said as a blueprint for the 3d animation .it helps to visualize and sync with other part of the scene (Such as audio, transitions, etc). Storyboarding is an essential part of producing an animation, which help to check whether the narrative in the script makes any sense when it's translated into a series of visual shots. Storyboarding helps artist to visualize camera angles, composition, point of view, hookups and continuity, object and character motion, cuts, posing, and, pacing

2.3 Modelling:

In CGI 3D modeling is a technique that uses to create a 3Dimensional object with the help of 3d software. Artists make a 3d model by manipulating the state of the basic shape or deforming the mesh to desired model with the help of different 3d software's. Every 3d Model has vertices, edge and face or polygons though which user manipulate 3d object and computer calculate those so give user desire shape. There many type of modeling which can be used for 3d model among them notable are polygonal modelling where primitive shapes as polygons are manipulated , curve/line modeling where models can be created by the help of line drawing surface are created , and sculpture modeling where artist mold shapes like clay and easily gets desire model and so on.

Here the poly modelling techniques are shown. From start a simple cube is modified with the exclude, bevel tools etc the vertex, faces,edge are modified

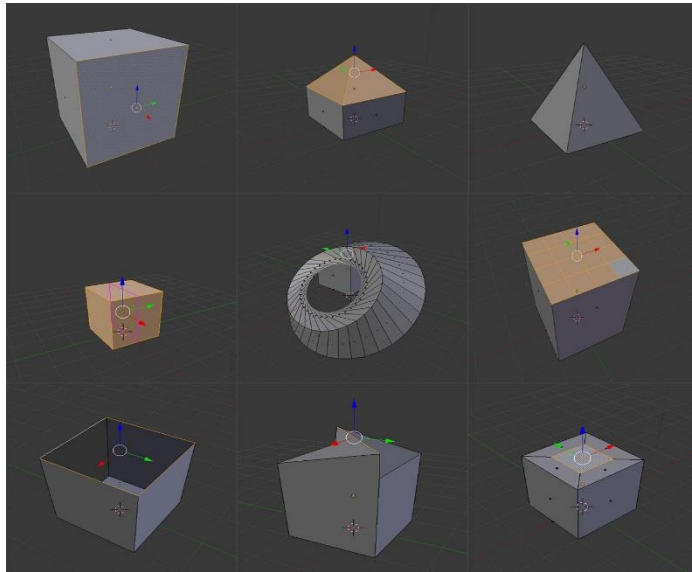


Figure 2.3.1: Polygonal Modeling

Another technique to make 3d models is the curve modelling. This is technique the user draws line and then those is extruded in to mesh for further modelling. Different type of shapes can be drawn with different curve or line tools

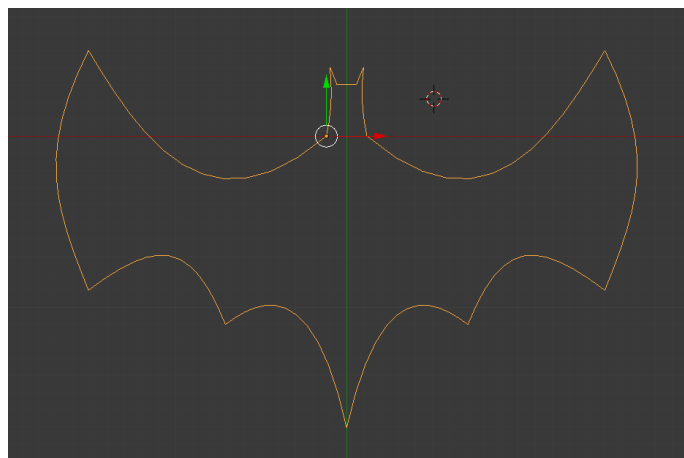


Figure 2.3.2: Curve modelling

3d sculpture technique very creative form of making 3d model where the artist can create abstract model by molding geometry shaped with brushes and tools that push, pull, pinch and smooth make it easy to create detailed sculpts .

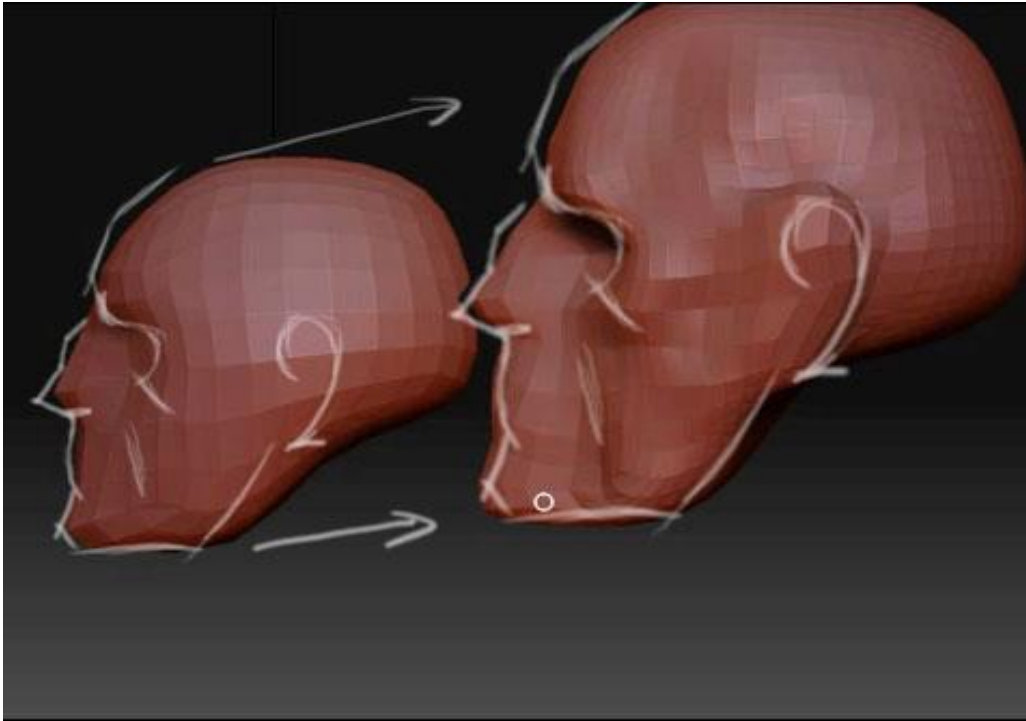


Figure 2.3.3: Sculpture modeling

2.4 Texturing:

Texturing is one of the main stages of three-dimensional model creation. Texture is an image that is being projected on a surface of 3d dimensional object that gives the impression of a real object. Texture has coordinates which are pairs of numbers stored in the vertices of a mesh. Those coordinates which are three-dimensional in their nature, represents a position within the texture's volumetric space. Texture gives realistic details to the surface.

3D model may have multiple materials assign to it but only has one texture. Texture controls various channels of object surface such as RGB surface, Greyscale surface, alpha channel surface and others. There are also multiple properties maps combined to get

illusion of realistic effect. Those maps are Bump map, Normal map, Displacement map, Reflection map, Specular map, Height map, occlusion map and others. Texture can be made by an artist by a 2d software such as Photoshop and sometimes artist prefer to take photograph of real life object to get realistic details their desired object.

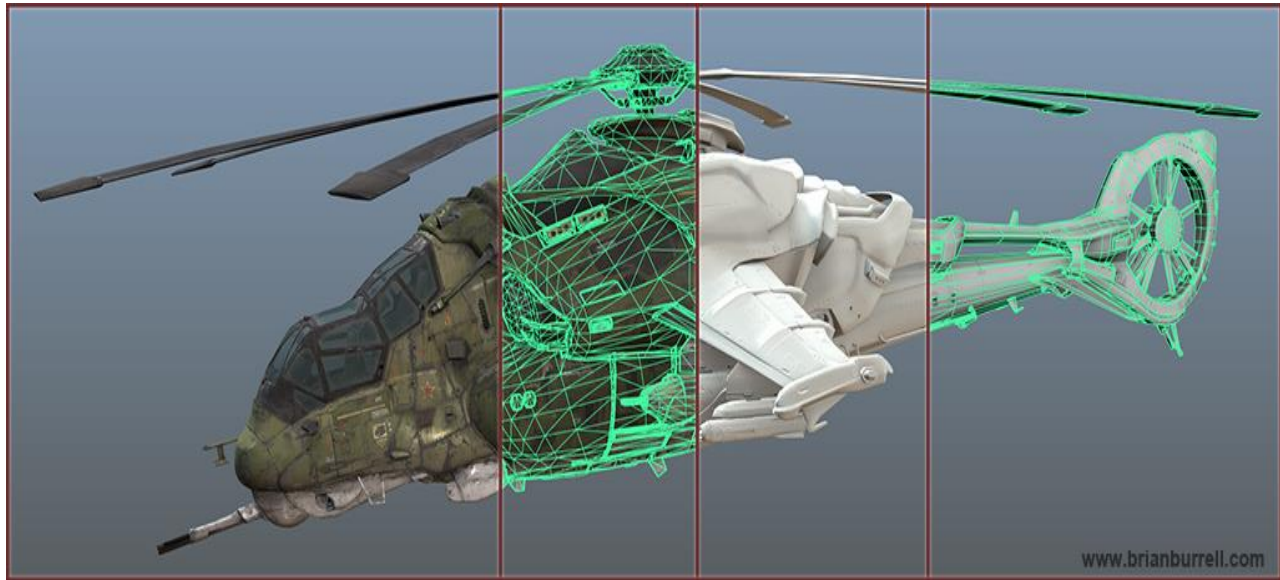


Figure 2.4.1: Texture model of a helicopter

2.5 Lighting:

In CG for creating hyper-realistic 3D scenes lighting is a critical part. one of the most important elements of any visual representation is lighting as it helps to the human eyes to perceive visually. For creating a perfect real world like scene in cg, we have to use real world examples and to study how these virtual renderings are achieved. A 3d artist has to have deep level of knowledge on how real-world light interacts and reacts in different situations. Light one of the most important aspect because it setup the mood of viewers and make a flat molded model realistic as the illumination from the light source simply bounces back from the objects that we see in the field of sight. In cgi light can Enhance or creating the mood of a scene, Create the illusion of depth, Create the illusion of volume, Reveal the substance and qualities of materials, integrate visual elements, set a

visual style and Create visual interest. There are many type of lights available different 3d software according to need such as Ambient Light, Area Light, Diffuse Light, Specular Light, Positional Lights, Emissive Light, Directional Lights, Spot Lights etc. For getting studio type lighting and reflection on object we imaged based lighting with the help of HDRI map. HDRI is a panoramic photo, which has all angles of an area from a single point and contains a large amount of data which helps to the illumination of CG scene.

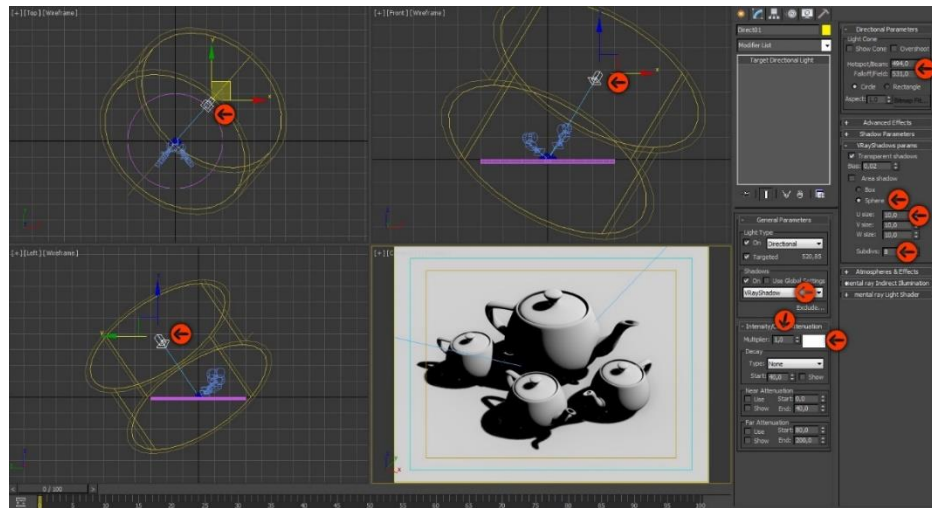


Figure 2.5.1: light setup for a scene

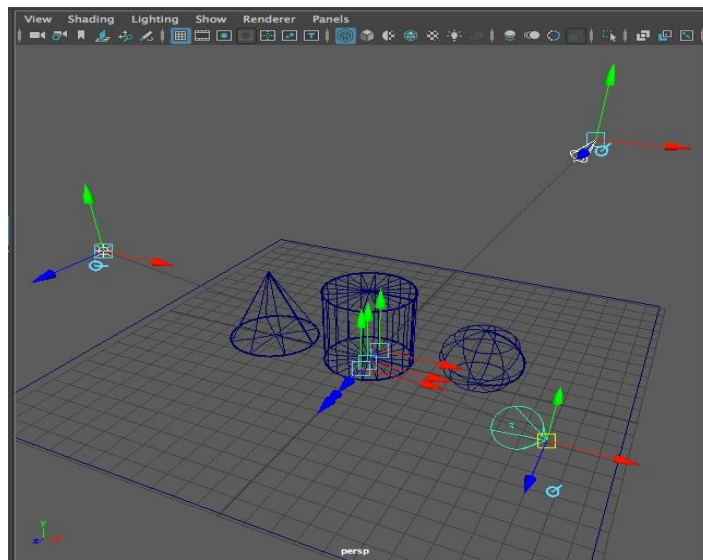


Figure 2.5.2: light setup for a scene

2.6 Rendering:

Render engine is a module responsible for generated CGI. the job of a rendering engine is to convert the applications internal model into a series of pixel brightness's that can be displayed by a monitor. Rendering engine gives the final appearance to models with visual effects such as shading, shadows, reflections and motion blurs, texture mapping. Render engine calculated all the aspect such as geometry, texture details, light, so on in one frame and give output as picture format. It is time consuming process. There many famous render engines available, serving for different purpose of users. Among them few are Vray, Arnold, corona, Iray, Mental ray, Maxwell, Octane renderer, key short etc. are highly used in industry for rendering of CGI.



Figure 2.6.1: Render Engines

2.7 Simulation:

3D Simulation is basically complex calculation done by computer to find the interaction of a large number of object and particles with each other which affected by the natural physics type forces such as gravity and wind to show real life alike results. This a very time consuming but very interesting process that combines with 3d. With the 3d simulation software one can easily create realistic fire, smoke, explosions, and other gaseous phenomena. There are a lot of software available at the market to do the simulation works and plug-ins for using in 3d software such as Real flow, Houdini, Autodesk Max, Autodesk Maya.

Here the smoke simulation has been demonstrated, with the help of real life physics this simulations are done and real life alike smoke with fire is made in various softwares.

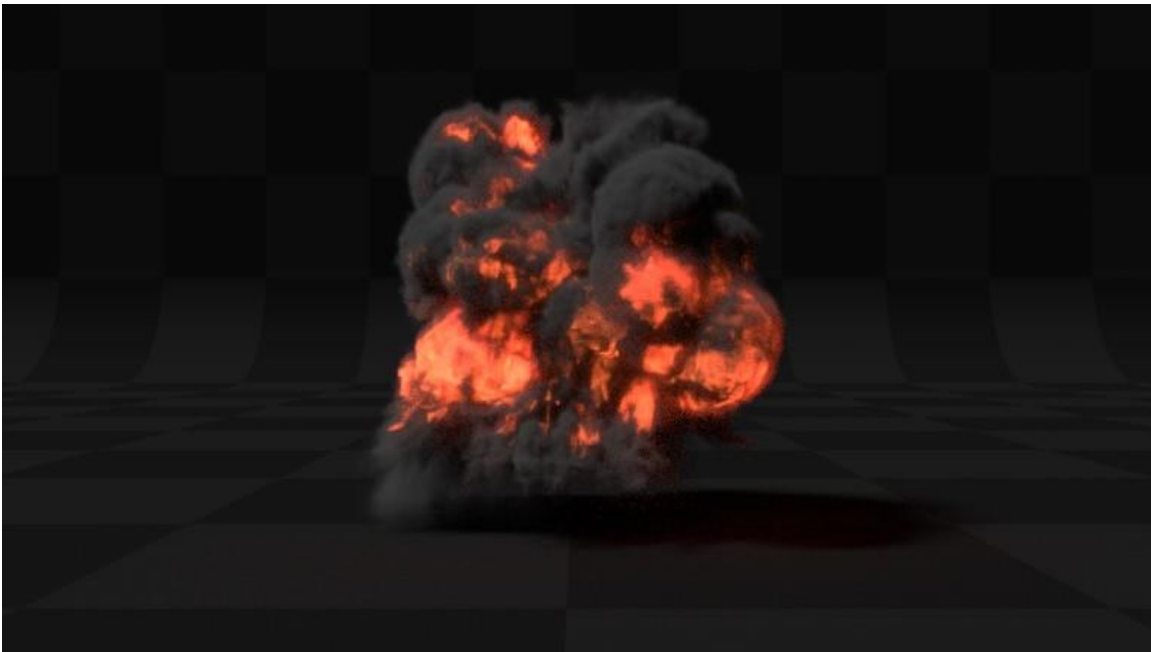


Figure 2.7.1: Smoke Simulation

Particle simulation where thousands of particles are emitted from a mesh object and react with different forces and physics in a specific life span. Usually particle simulation is used to create complex shapes such as hair.

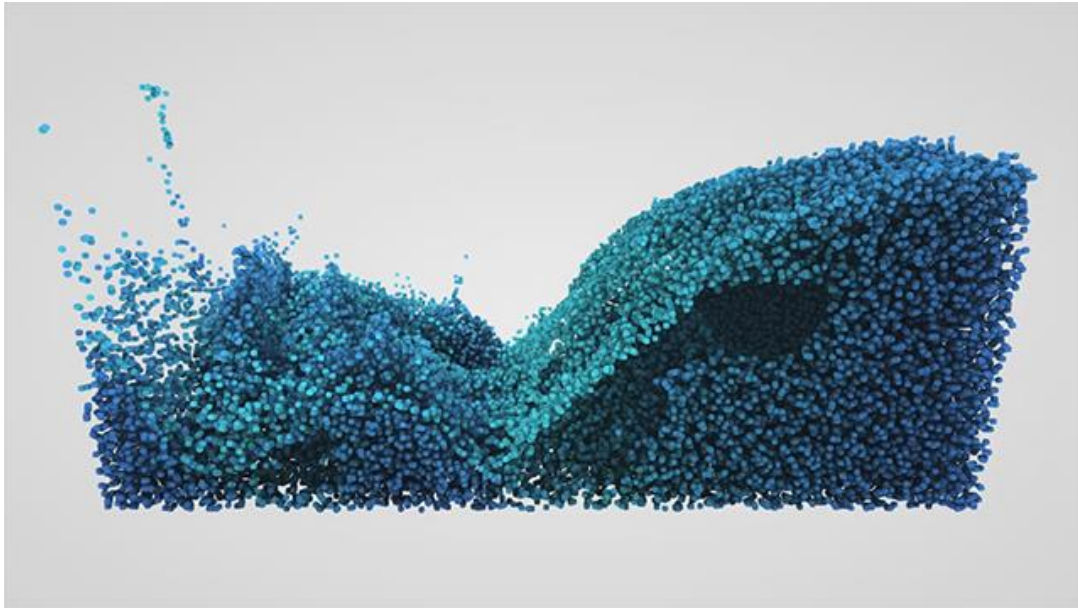


Figure 2.7.2: particle Simulation

Fluid physics are being used to simulate the water simulation properties.

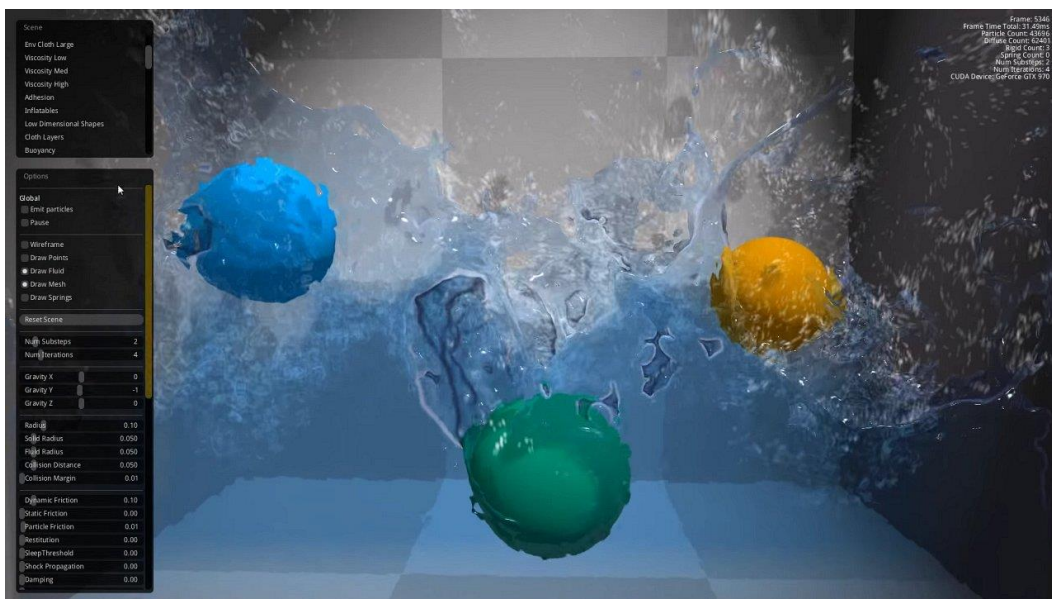


Figure 2.7.3: fluid Simulation

CHAPTER – 3

MODELLING

3.1 Introduction:

In CGi 3D modeling is a technique that uses to create a 3Dimensional object with the help of 3d software. Artists make a 3d model by manipulating the state of the basic shape or deforming the mesh to desired model with the help of different 3d software's. Every 3d Model has vertices, edge and face or polygons though which user manipulate 3d object and computer calculate those so give user desire shape. clean tropology also needed model to look realistic.

We have used polygon modelling technique at our modelling on this project.at the advert is about mobile phone. We had to make models like phone, jet, charger, buildings which was done in Autodesk Maya 2018 and cinema 4d r19.

3.2 Modelling procedure:

Our target was to maintain the tropology of the models clean so that our model looks real. We used polygon cube to start Making a Jet, form a cube through extrude and offset. Giving the shape of front side of jet

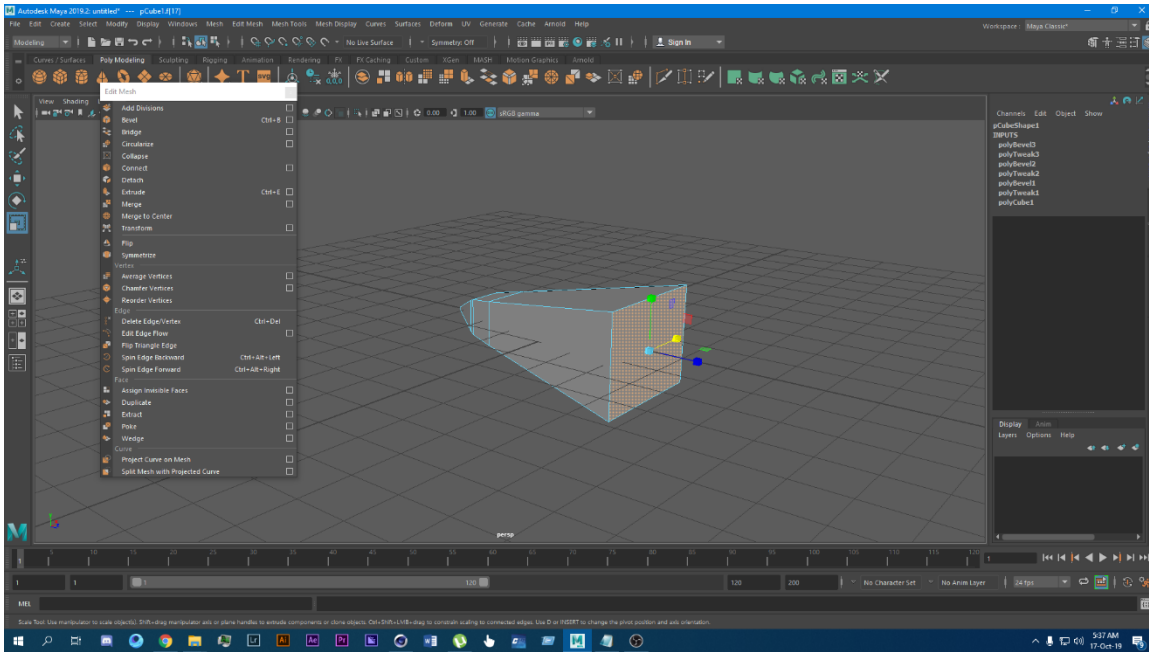


Figure 3.1: Making jet front

Making the model smooth through pressing 3 try to know how looks like with the smooth shape, checking the shape many types

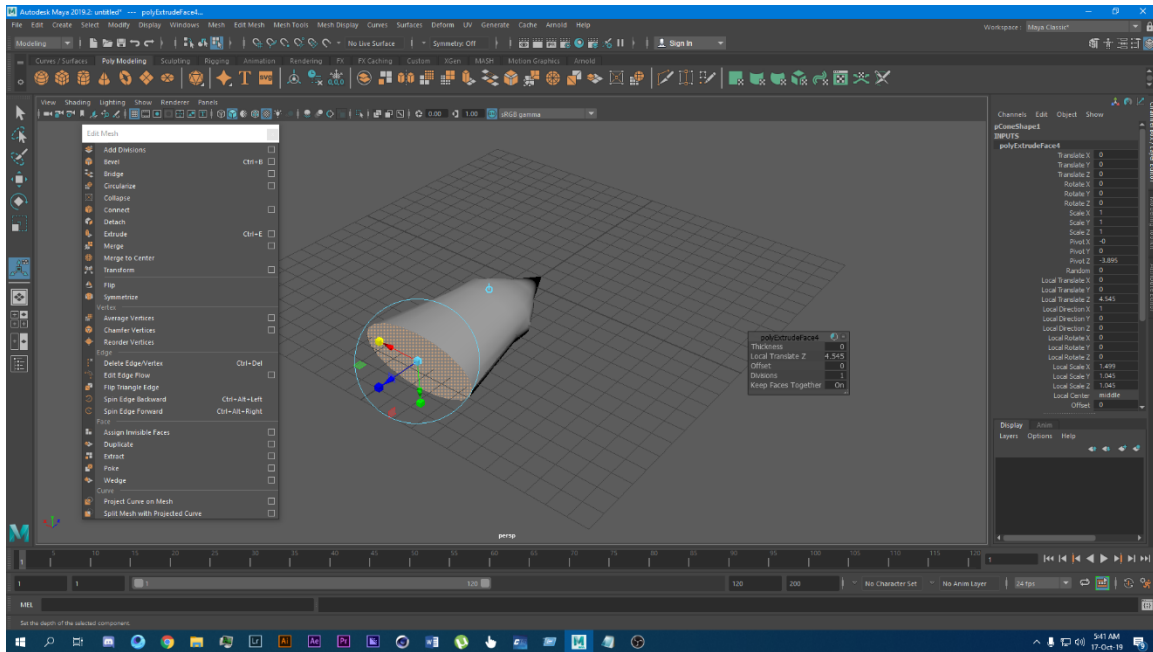


Figure 3.2: smooth Jet model

Extruding the body part of the jet, by extrude tool of the mesh changing this shape looks like a jet wings part

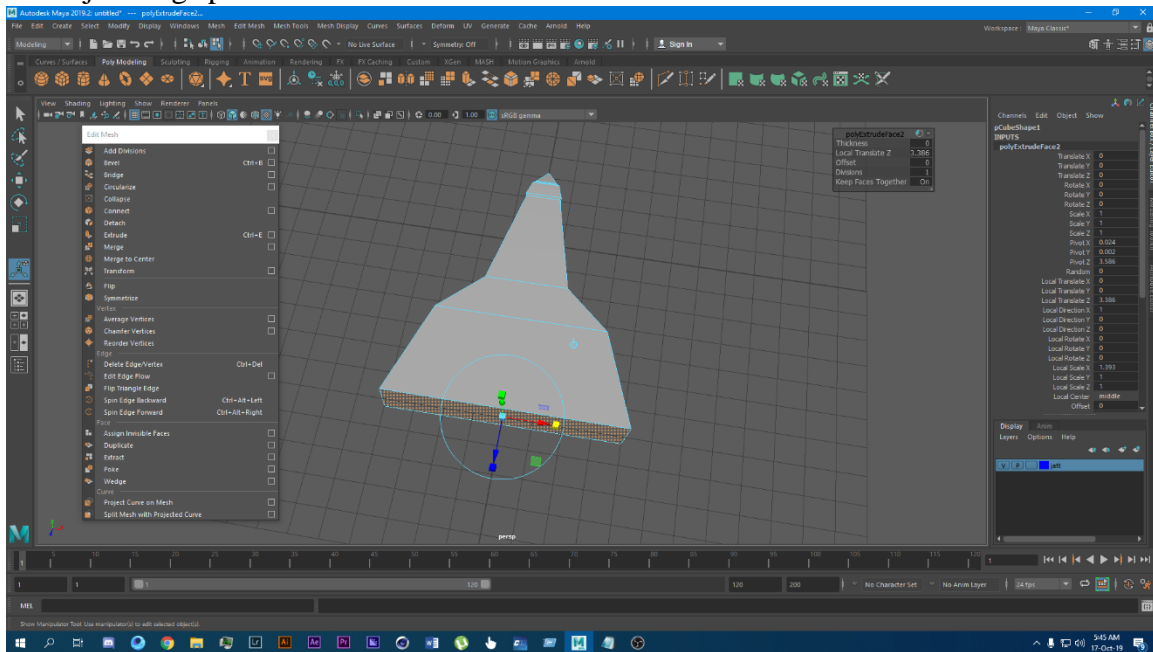


Figure 3.3: extruding jet body

Extruding and adjusting the vertices to form the body of the jet plane complete this body part then creating this wings part shape

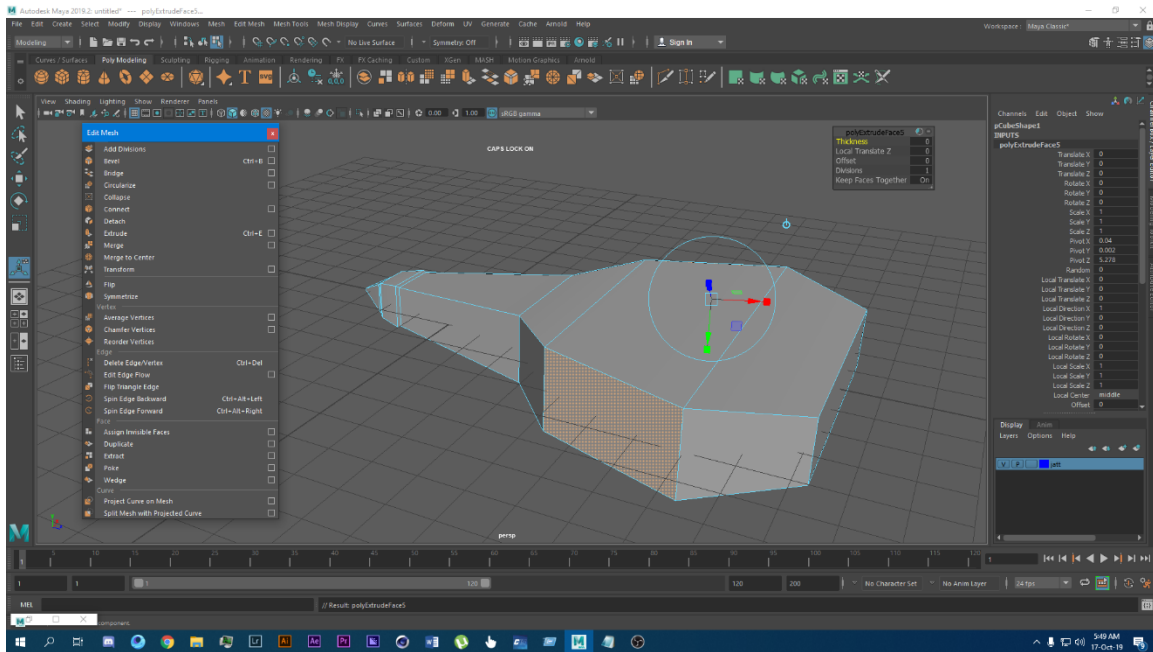


Figure 3.4: Forming the shape of jet body

The wings of the jet plane is extruded and vertices are adjusted for shaping the wings try to make special jet plane shape of this wings

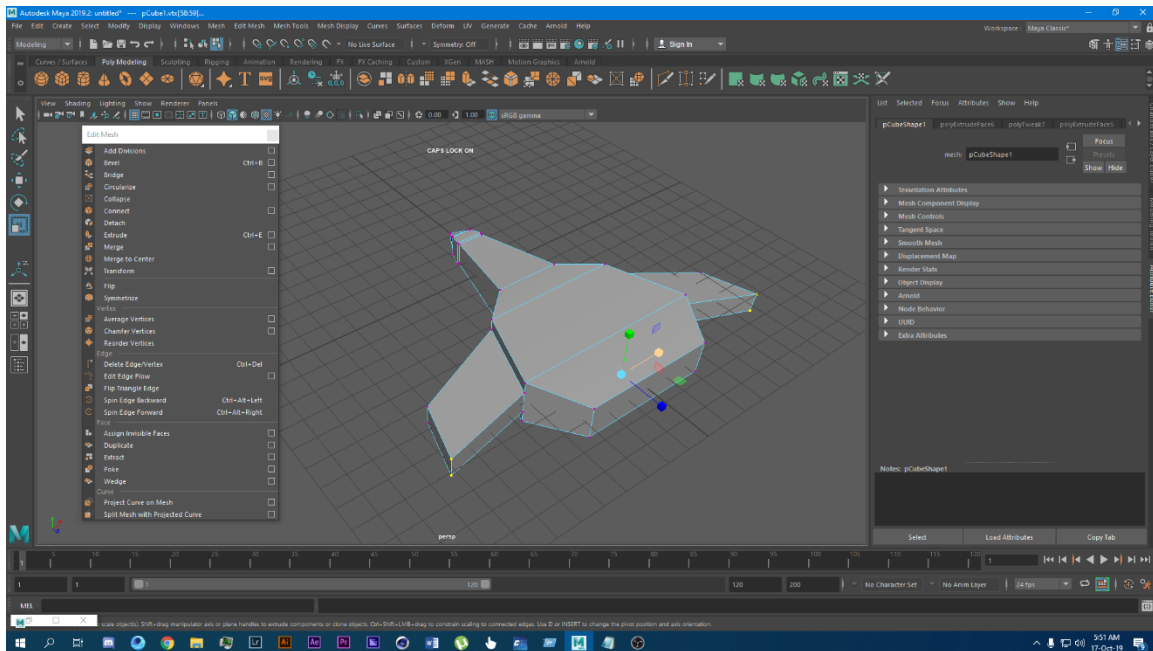


Figure 3.5: Wings of the jet plane

The back side of the jet is being extruded inside to make hole for jet boosters set on it and try to make it good proposition and booster part is ready for hole create.

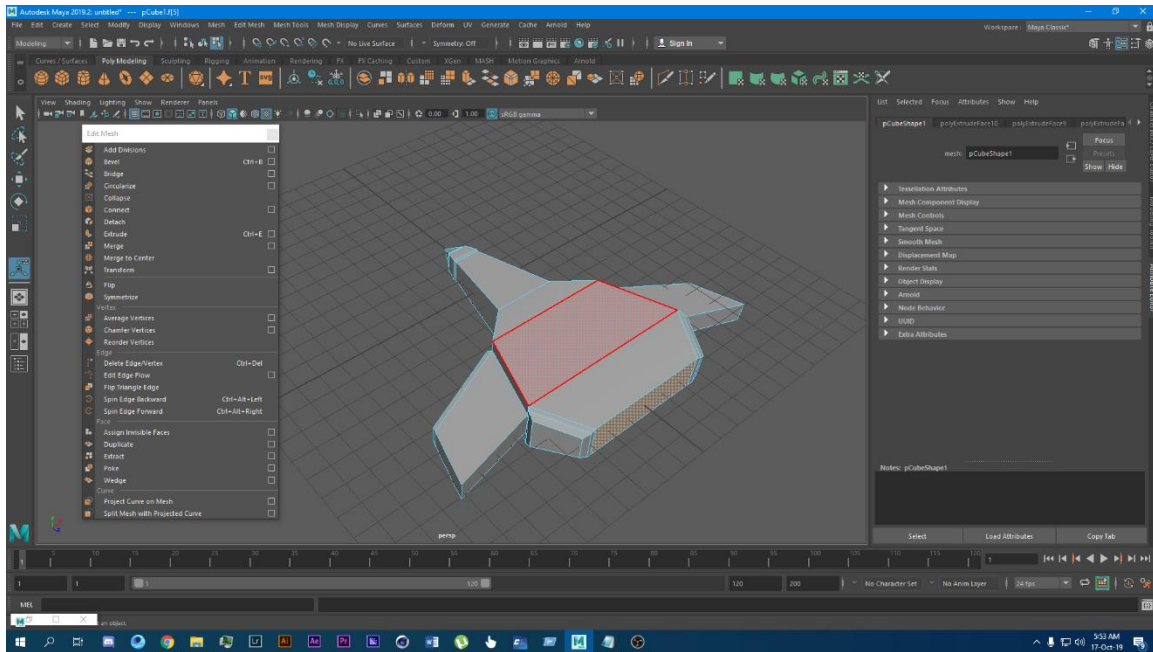


Figure 3.6: Making jet backside

Adjusting the vertices and edges of jet and making the upper part body from different perspective

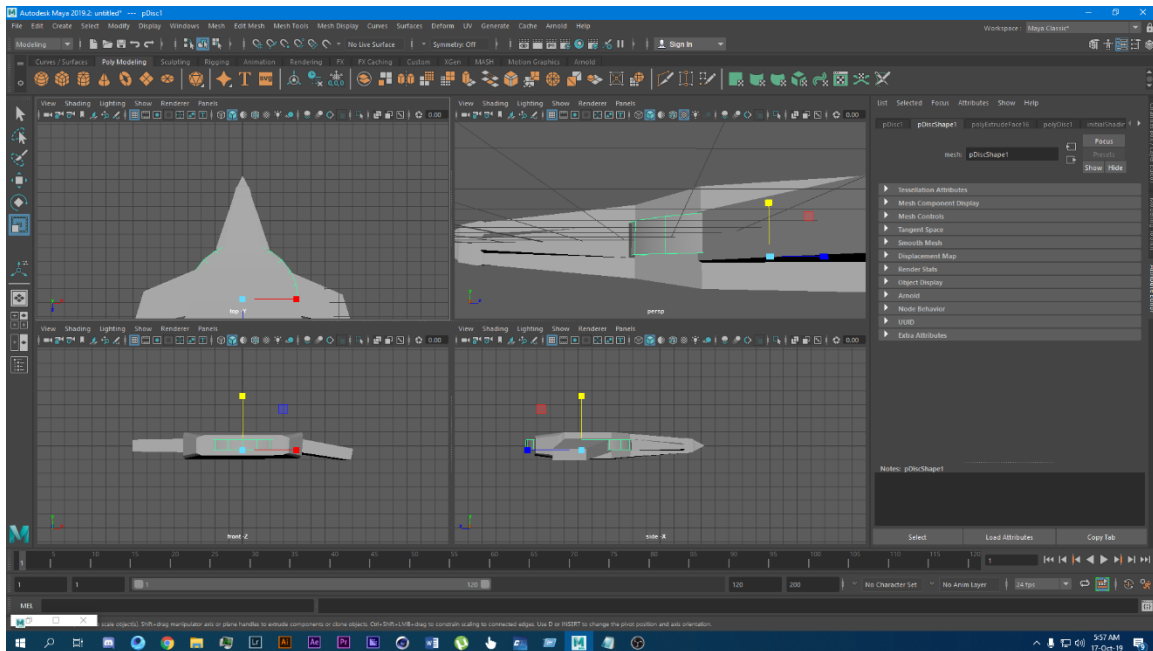


Figure 3.7: showing different perspective of model

Making the backside of the jet by making hole though the Boolean process. And shape of jet cylinders.

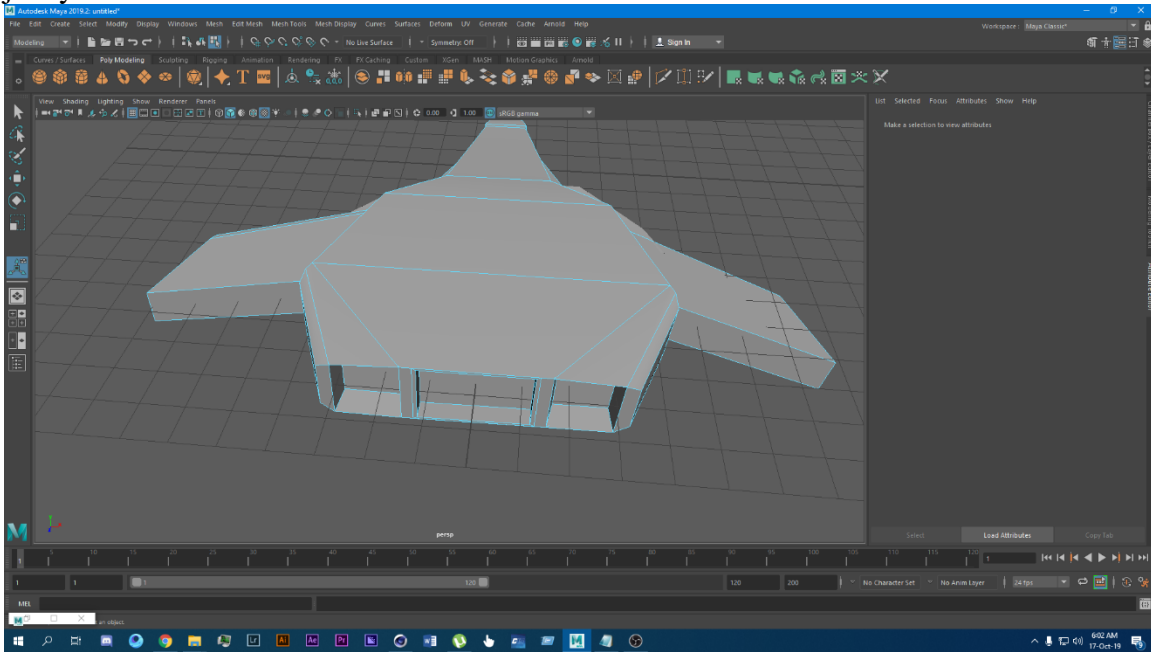


Figure 3.8: backside of the jet

Backside of the jet with separate cylinder and making it the roundish booster shape and try to up this jet top side

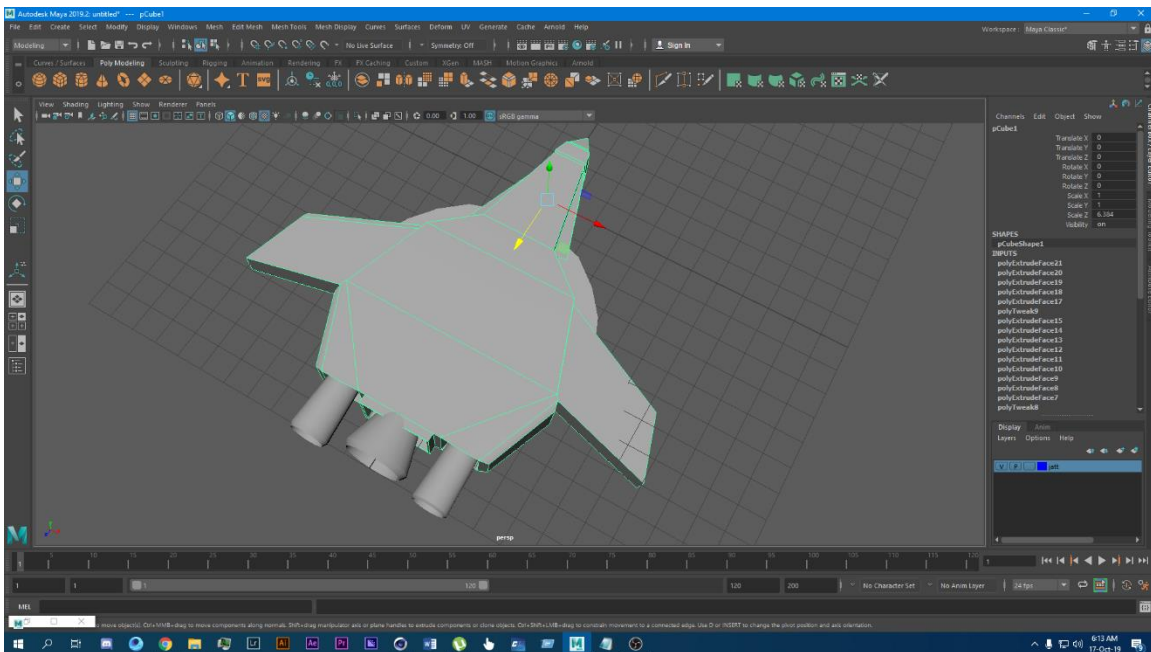


Figure 3.9: Backside booster

Upper part of the body is built using extrude and bevel on top. And make the pilot place and this part is make for mirror type because it's a jet.

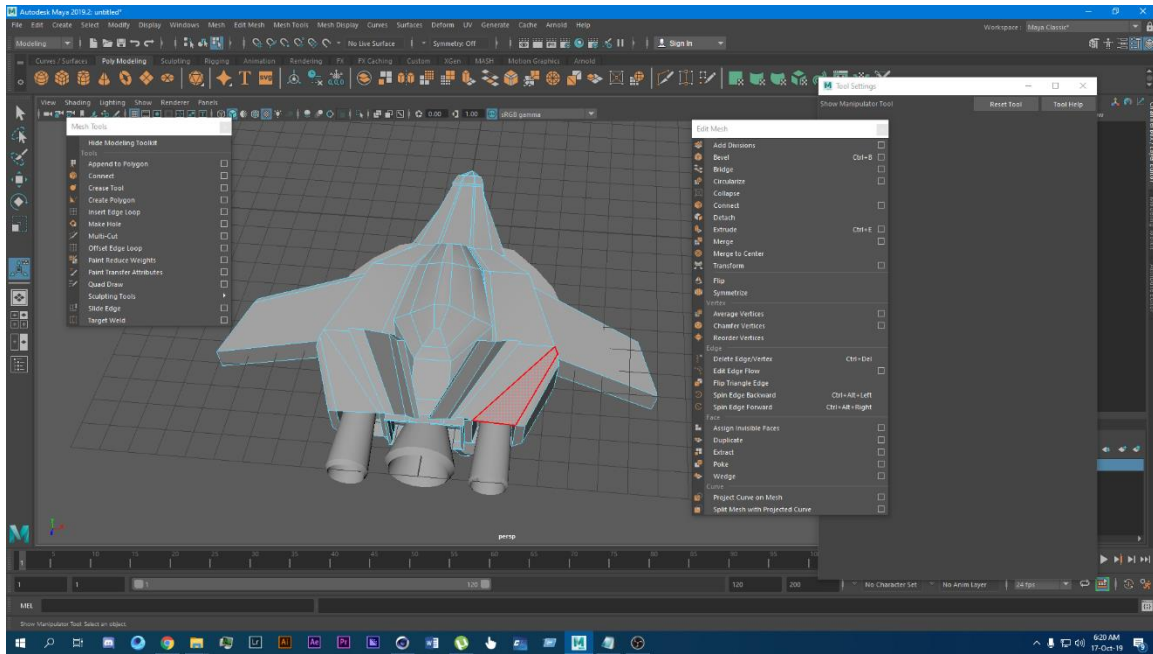


Figure 3.10: Main body of jet

Complete the jet and then smooth some part of the full body is then “UV” mapped to go in for texture

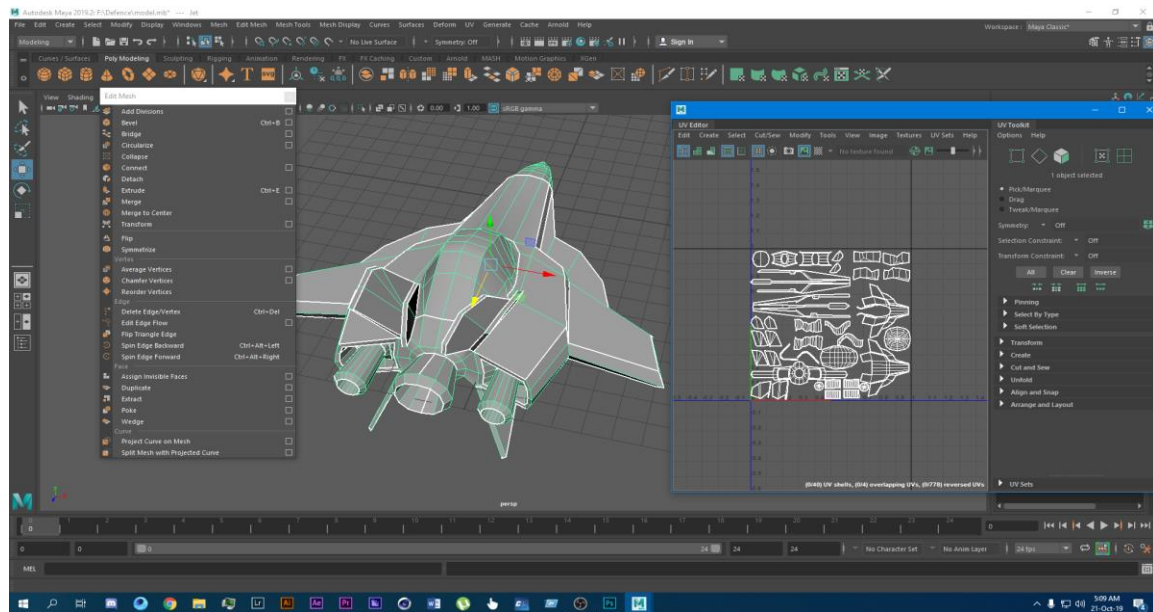


Figure 3.11: Uv map of the jet plane

CHAPTER – 4

TEXTURING

4.1 Introduction:

3d Texturing is mapping of an 2d image in 3-dimensional surface which gives impression of physically present in that surface. Texturing is details to the surface of models. In this project we have used cinema 4d materials and Jsplacement tor creating textures.

4.2 Texturing procedure:

At first a bump map applied on a material and inside the camera the is bump map texture applied to show illusion of depth

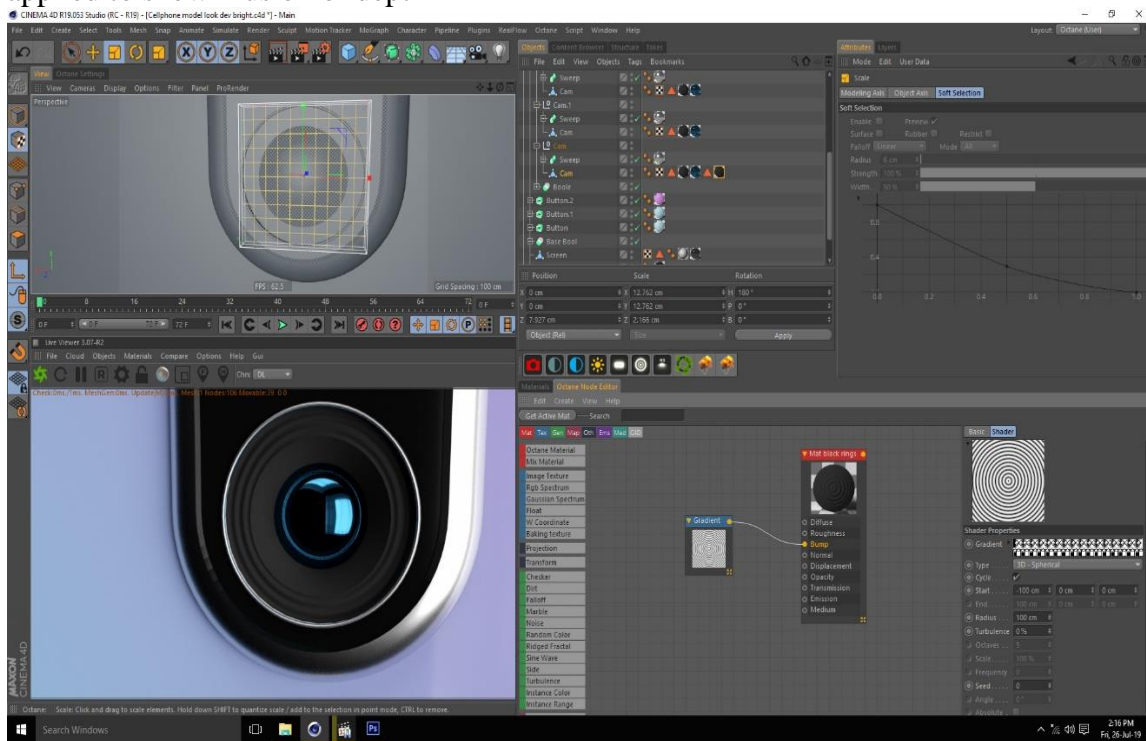


Figure 4.1: bump mapping inside camera

Material adjust with the camera lens changing the material node for create own way material.

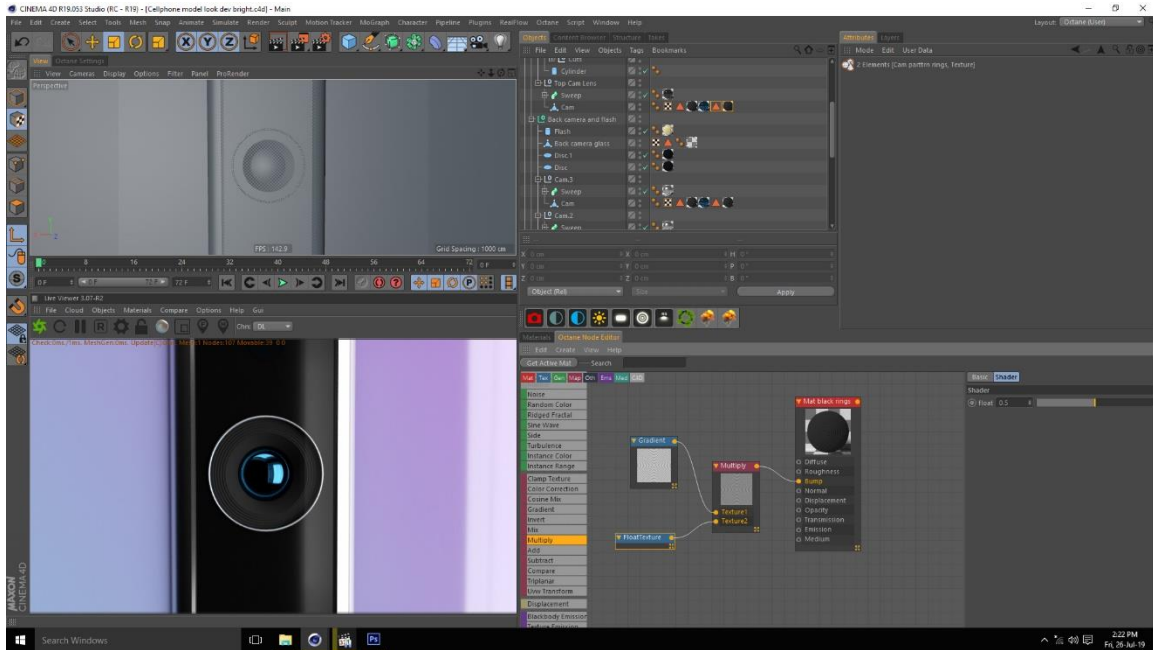


Figure 4.2: bump map multiplied in channel

Making material for tunnel and adding a gradient tag to the diffuse channel our first scene part try to look good for our phone color and background adjust.

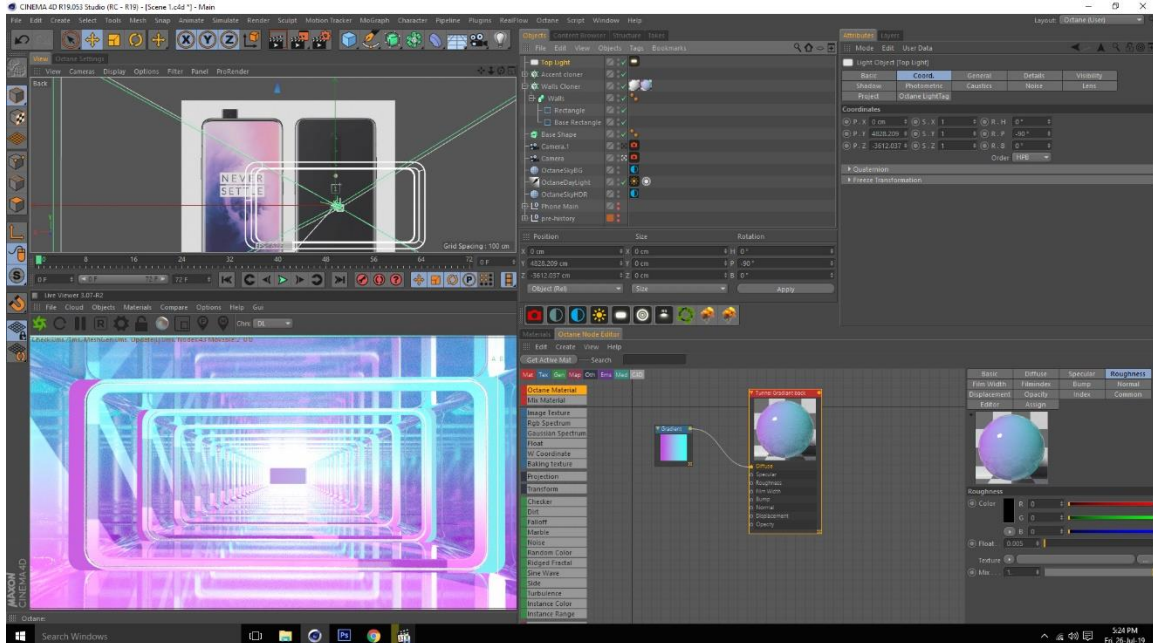


Figure 4.3: gradient material for tunnel

Using same material for the phone color as we have continued the color in every aspect of our adverts.

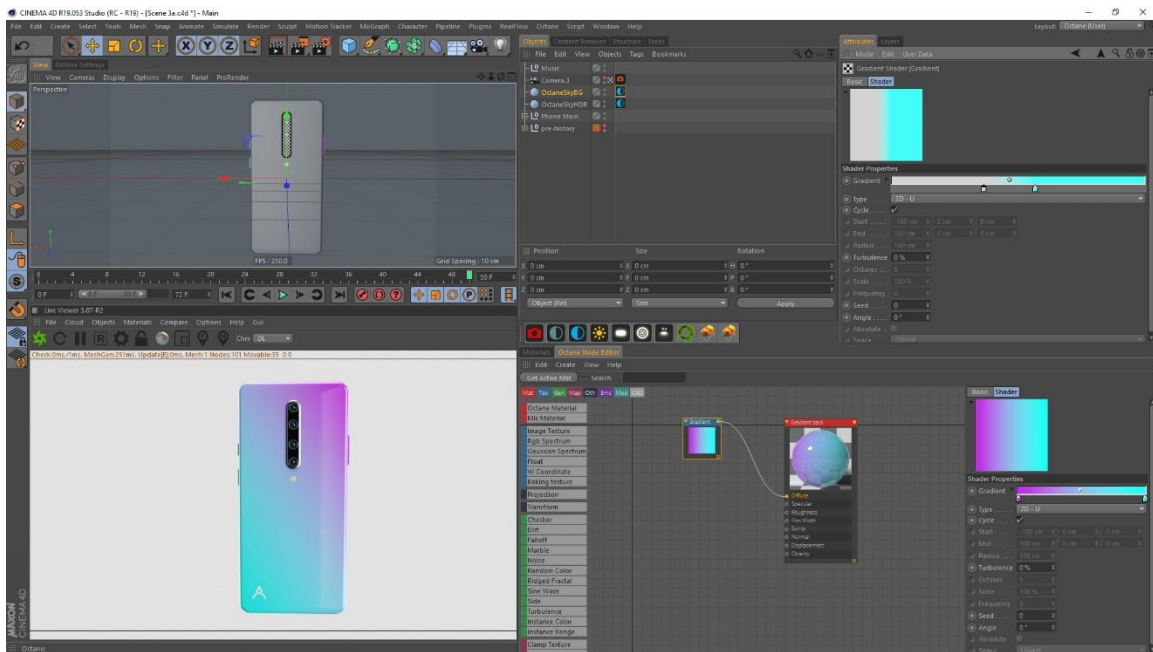


Figure 4.4: Material for Mobile phone

Making material for the lens of phone by giving blue color to normal shader and make it realistic fill and that's why I want to try it make smooth and glossy.

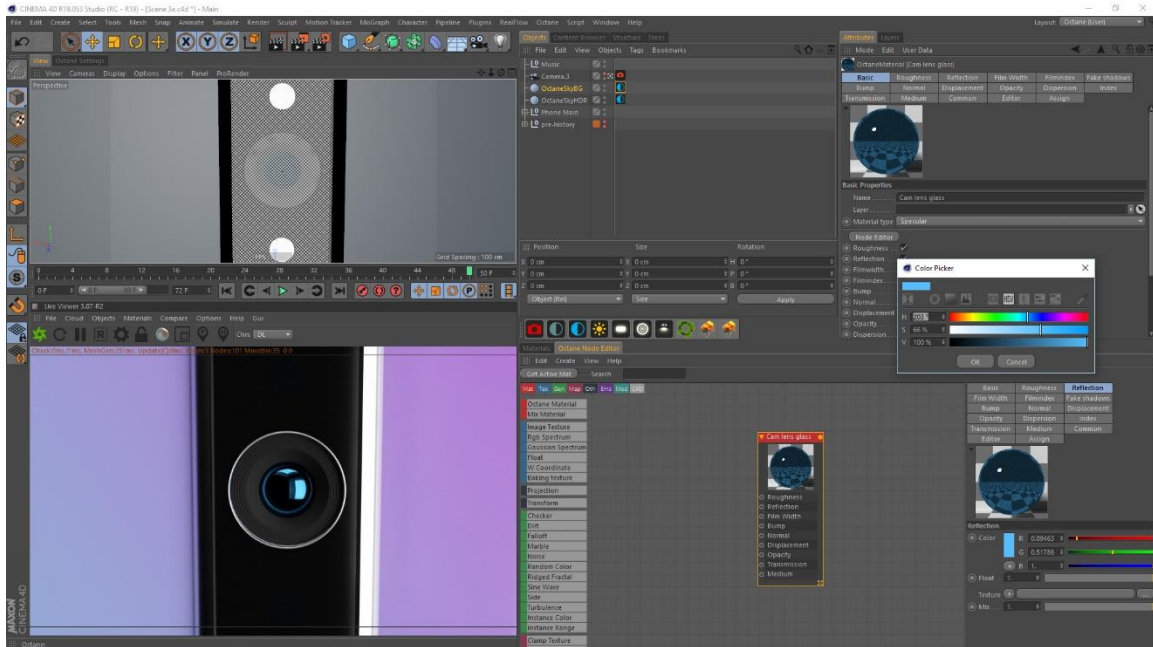


Figure 4.5: Material for camera lens

Another material created with bump map assign bump channel of the shader and yellow color tag given in the diffuse channel to colorize it.



Figure 4.6: Material for flash light

Another material created for the screen glass of the mobile basically normal shader with black applied

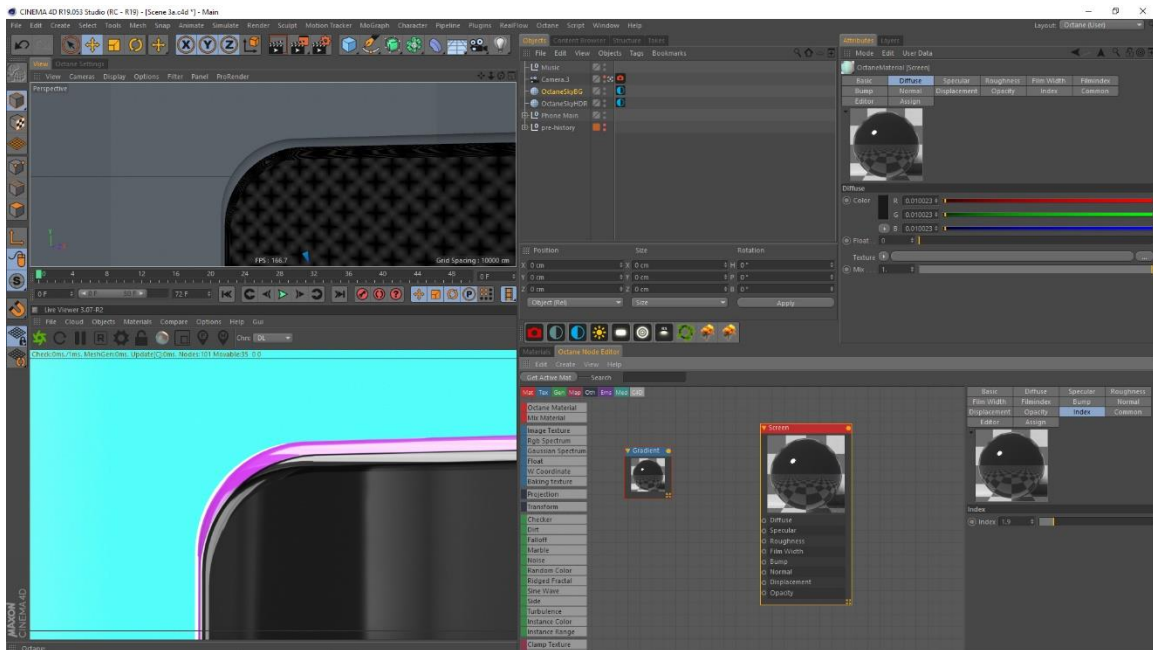


Figure 4.7: Screen glass material

Four camera texture complete and with the body adjusted with the color adjust the gradient.

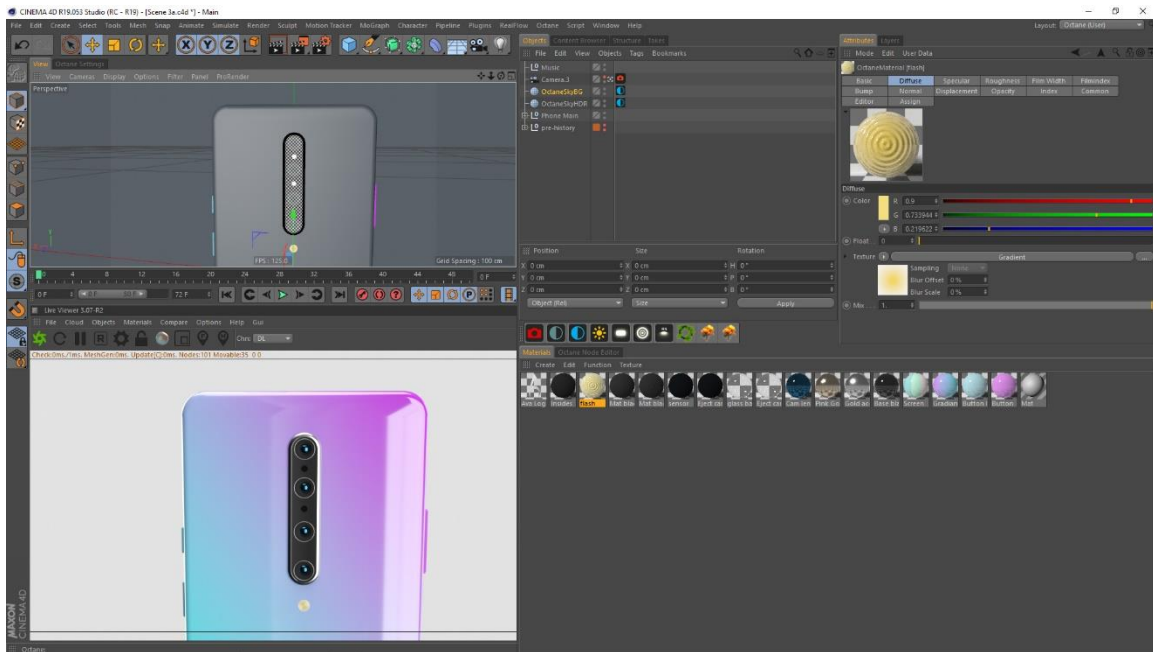


Figure 4.8: Camera and Flash light materials

Logo is applied at the bottom of phone by using a logo image on the opacity channel. And logo adjust with the corner point and then apply the gradient color.

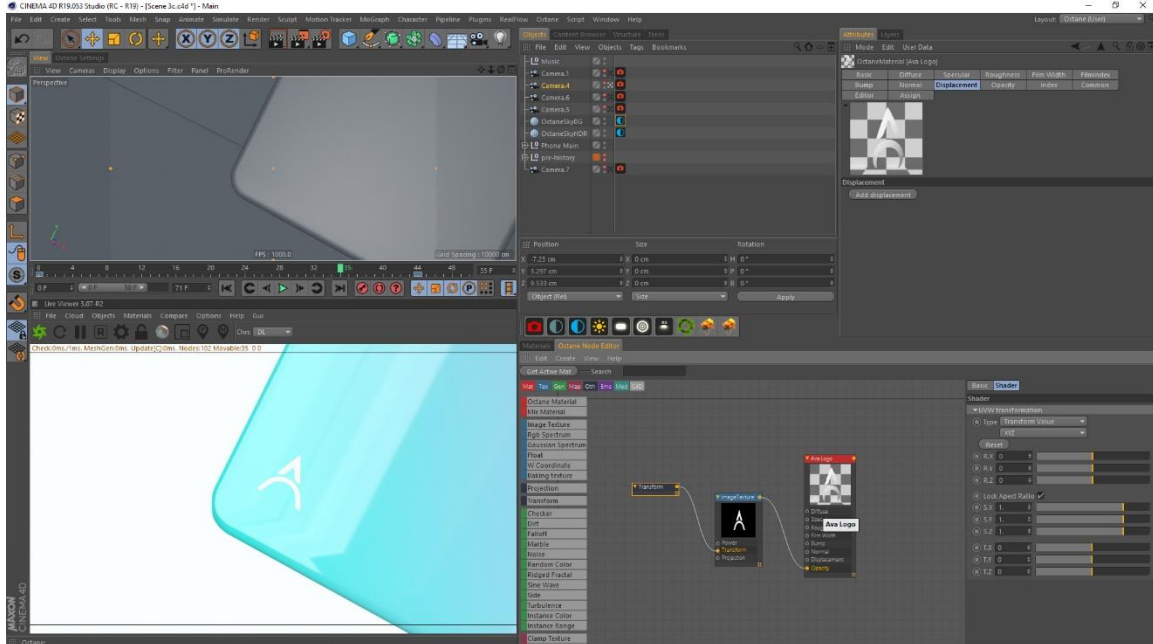


Figure 4.9: Material for logo

An texture is created with the help of a 3rd party software jsplacement for making the motherboard texture.

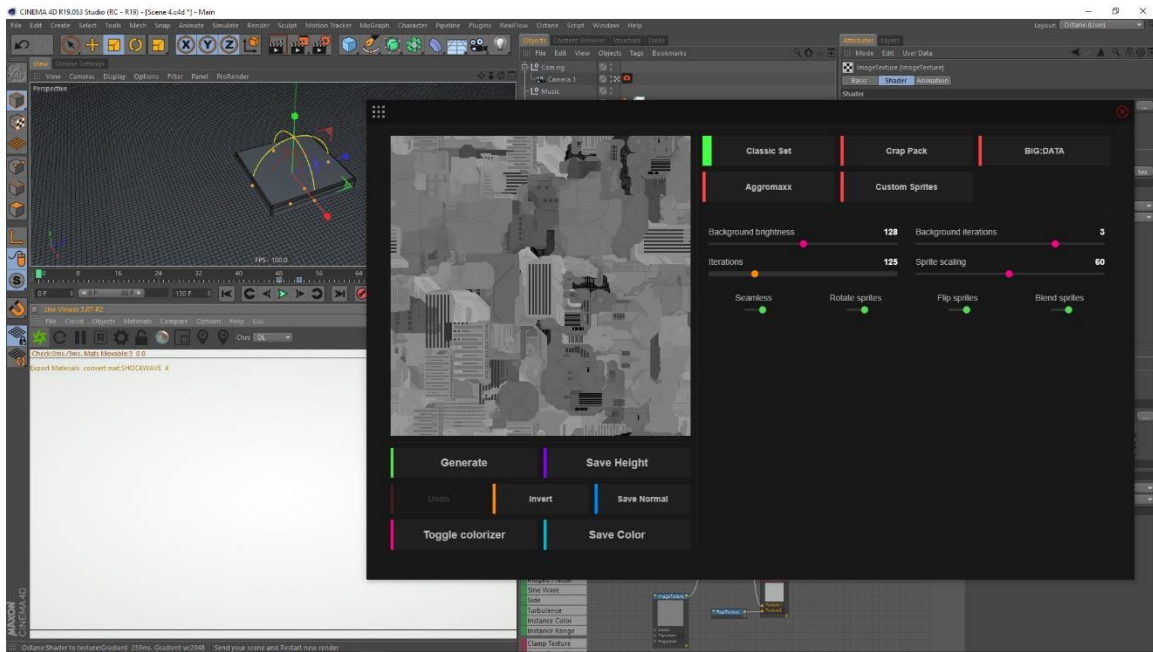


Figure 4.10: Motherboard texture created

Texture is applied on the diffuse, bump, roughness, displacement channel and also try to use the bump and notes use.

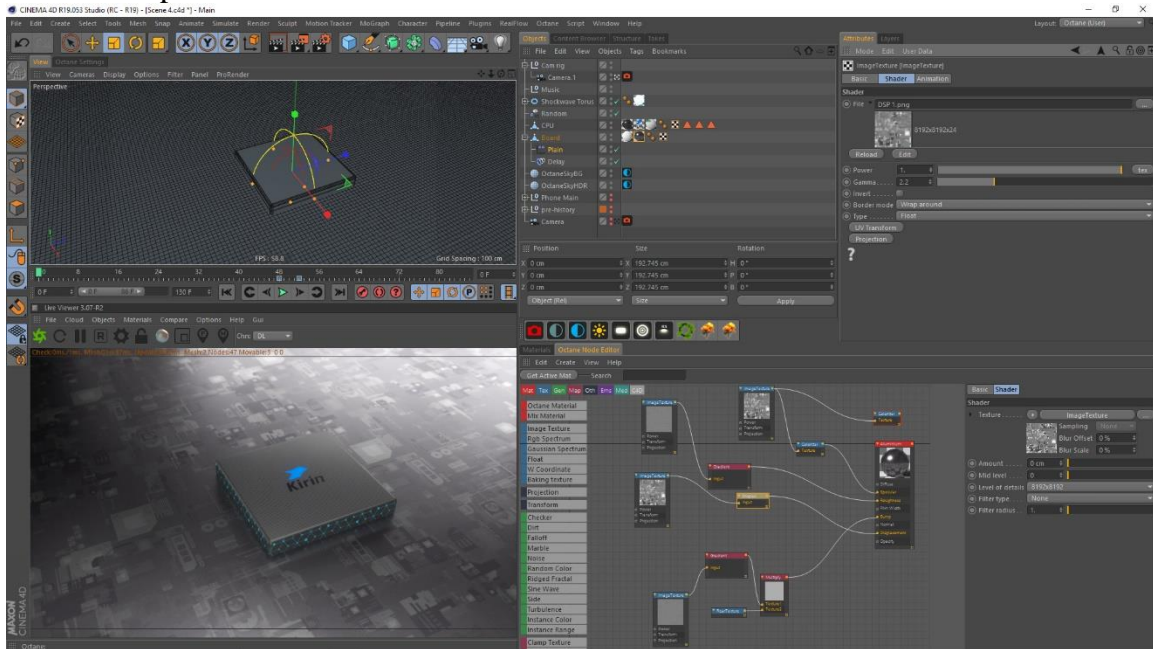


Figure 4.11: motherboard Texture applied

Texture amount is given 12 in the displacement channel to get the high and low depth effect.

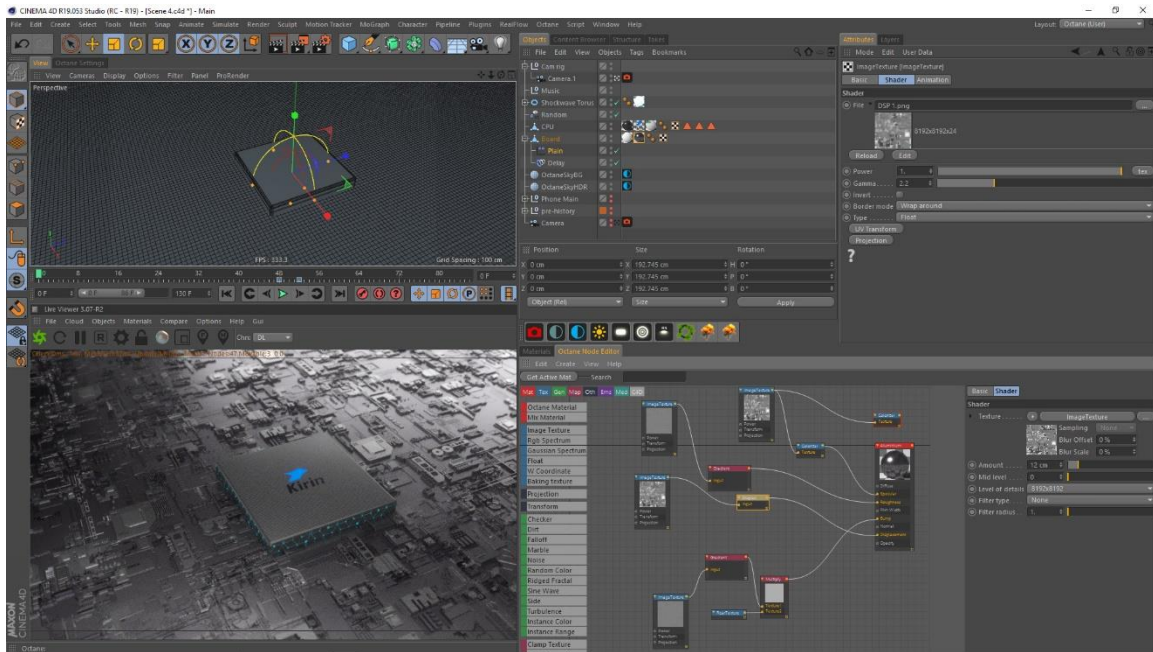


Figure 4.12: Displacement map on plane

Texturing the processor by using octane mix, where we used two material shader, one is giving the simple pattern texture shader and another one is emitting gradient color from pattern at the middle of that assign texture.

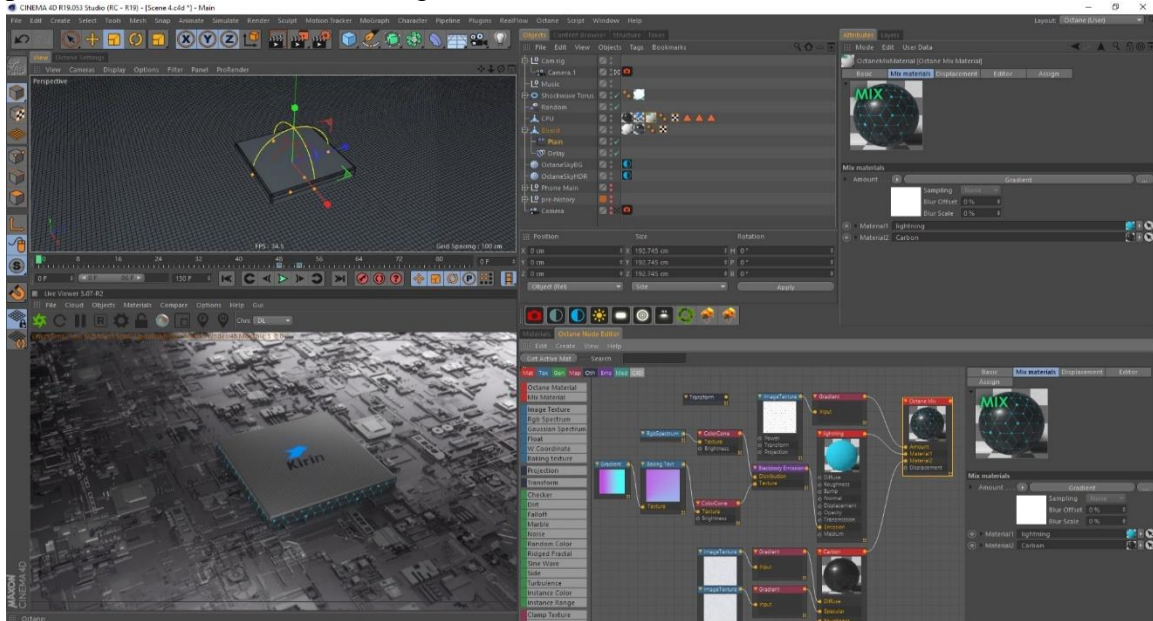


Figure 4.13: Processor texturing

Adding Kirin logo to the processor on the alpha channel and diffuse channel using here bump for realistic fill make

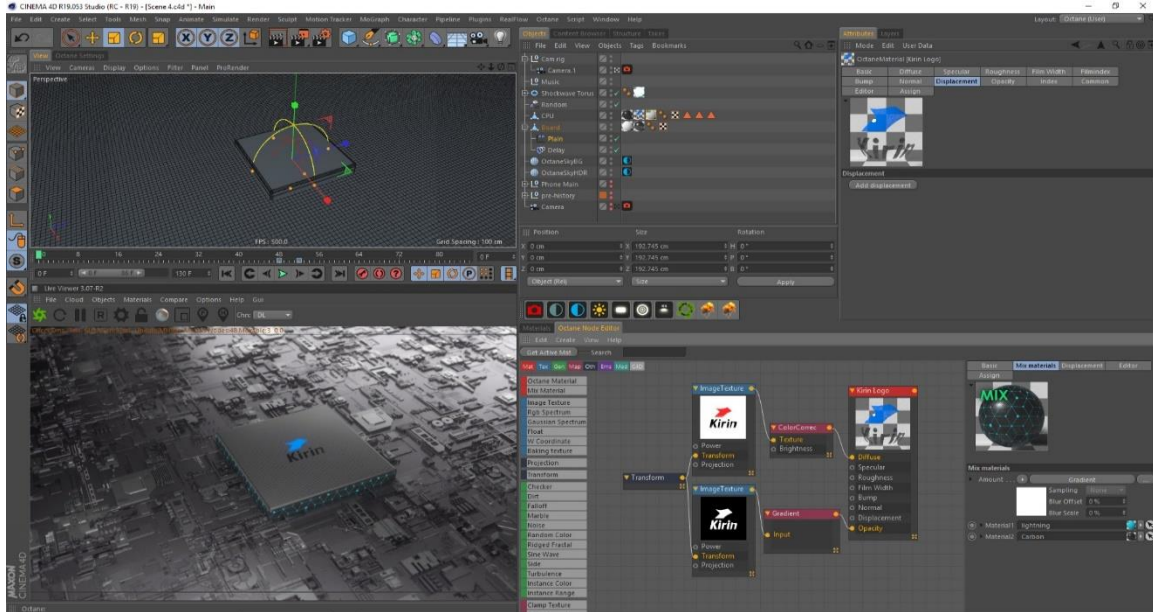


Figure 4.14: Processor logo

New material created for the power blast of processor where the gradient color is applied to the diffuse channel and use of emission channel for the glow of wave and used a black to gradient for fading effect on the opacity channel

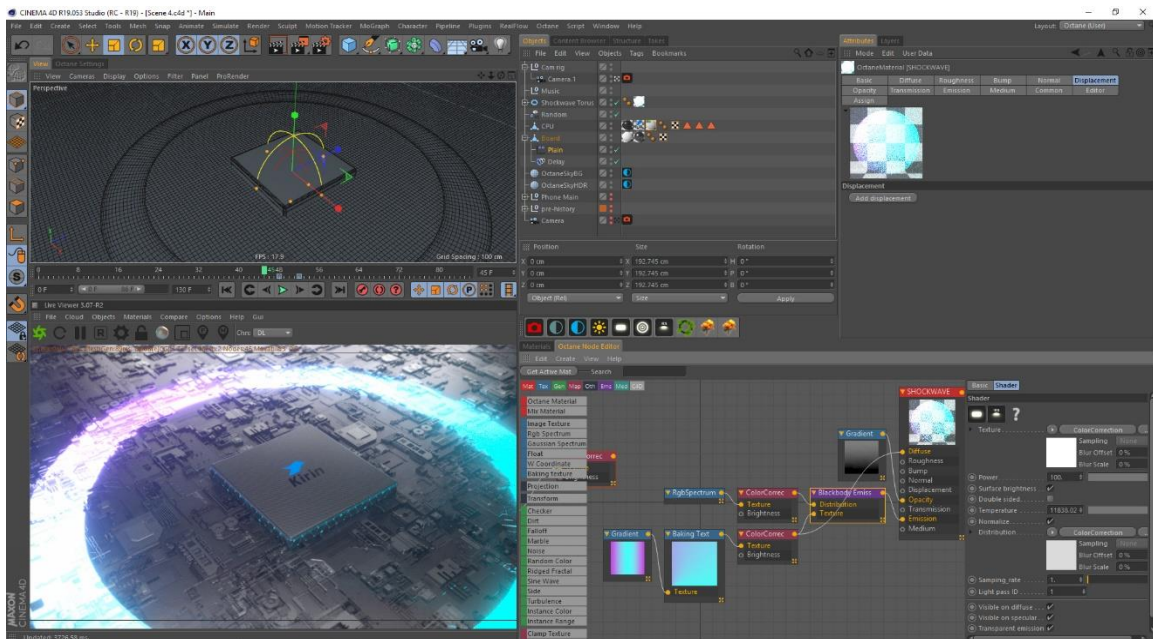


Figure 4.16: Power wave material

All the pass for this displacement in this scene using for realistic look. And I just want use some sketch and make some bump for the real look.

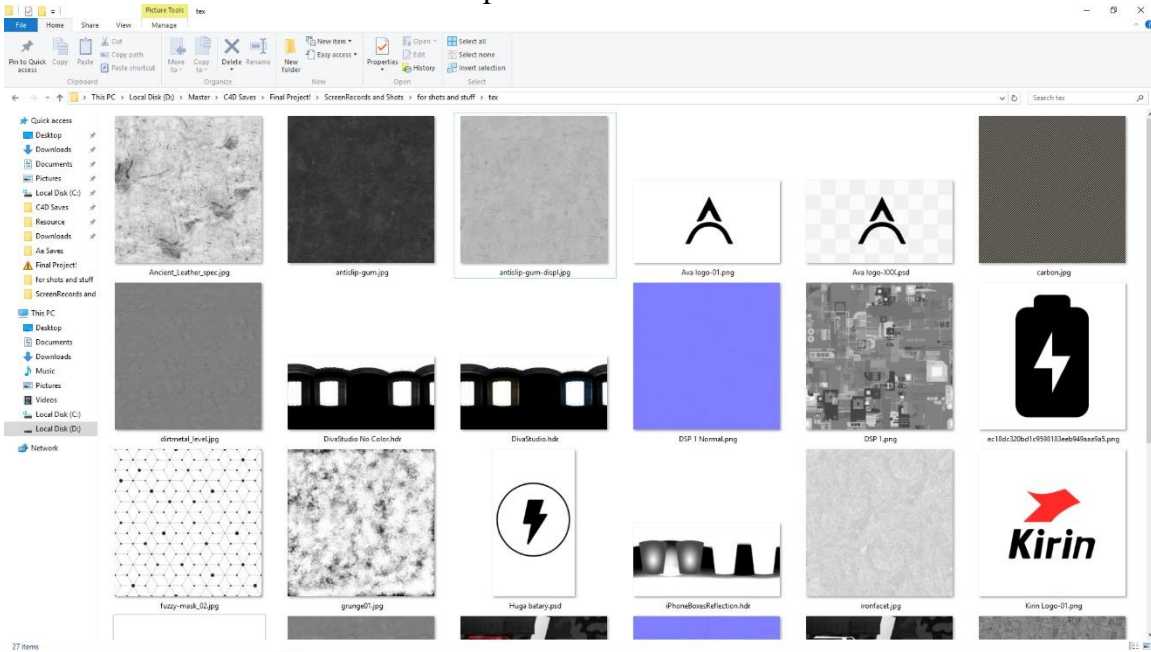


Figure 4.17: texture folder

Phone final look make and variation create 4 color variation all the part is similar and the gradient is just change for the color variation.

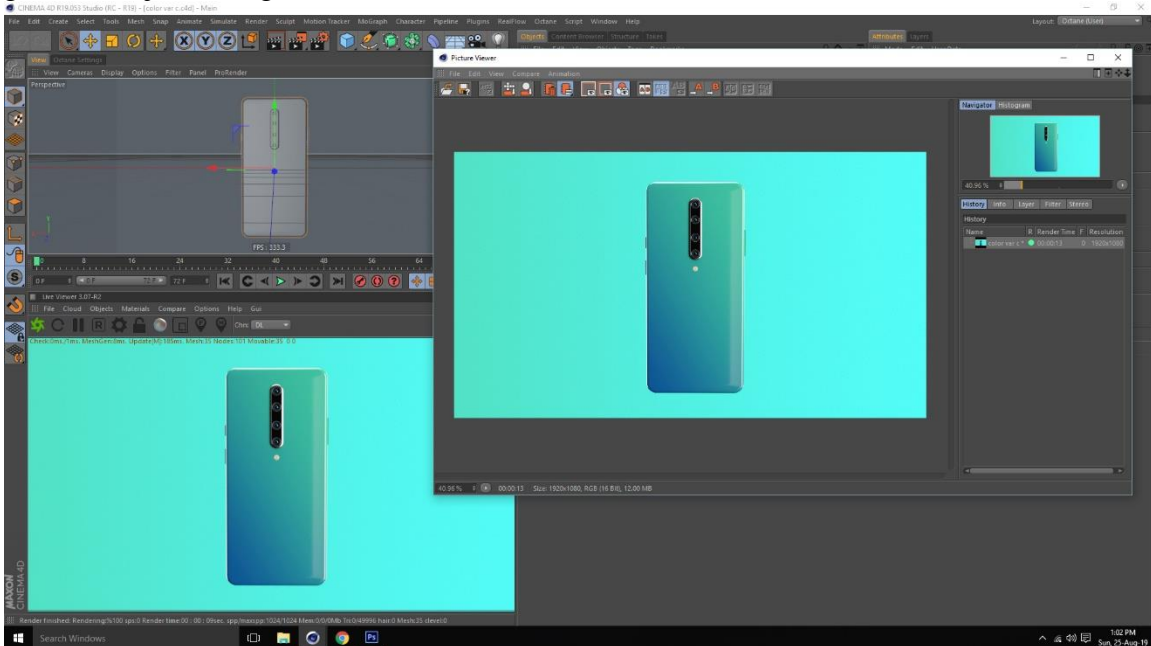


Figure 4.18: Use of different color

Another variation for our phone color we want to make some color variation because people like to play with color.

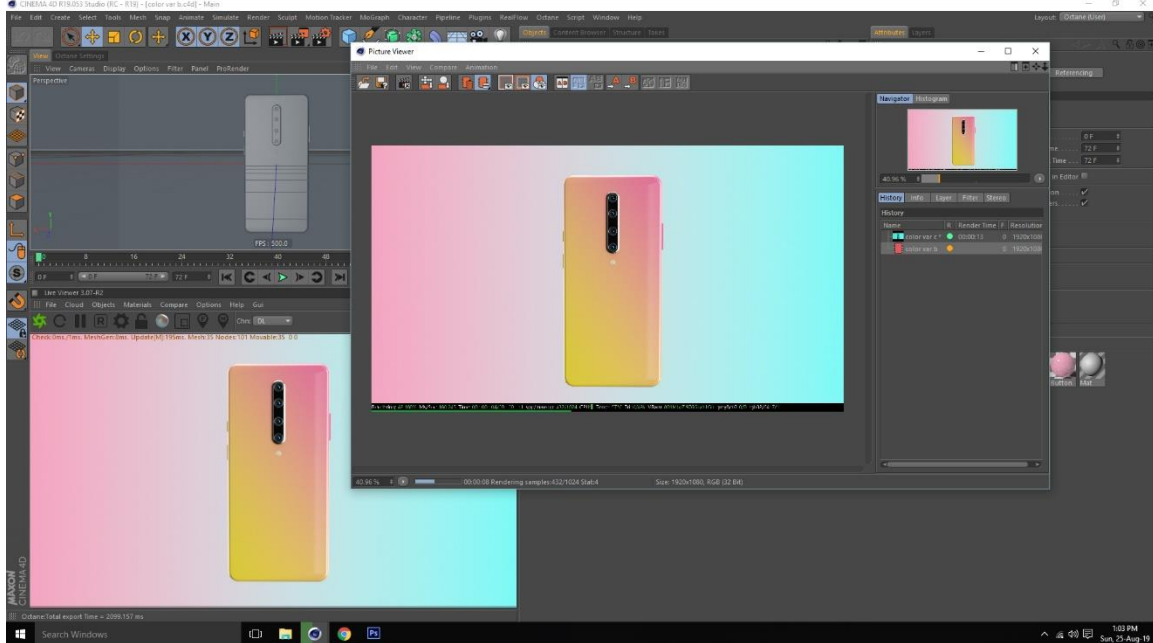


Figure 4.19: Use of different color

When the phone turning people can see many phone in this that's why using the variation of this color gradient.

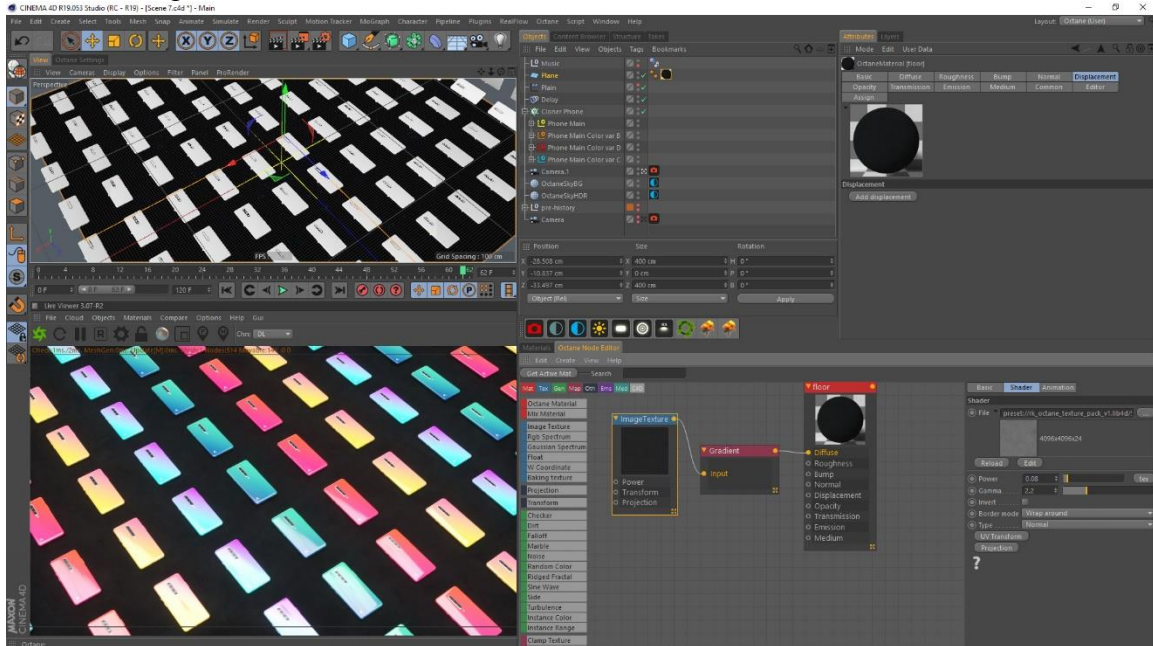


Figure 4.20: material for coloring plane

Different Gradient shader for the mobile in the scene we are see many type of color at a time it's like same but if you are use variation that can be change that's my point.

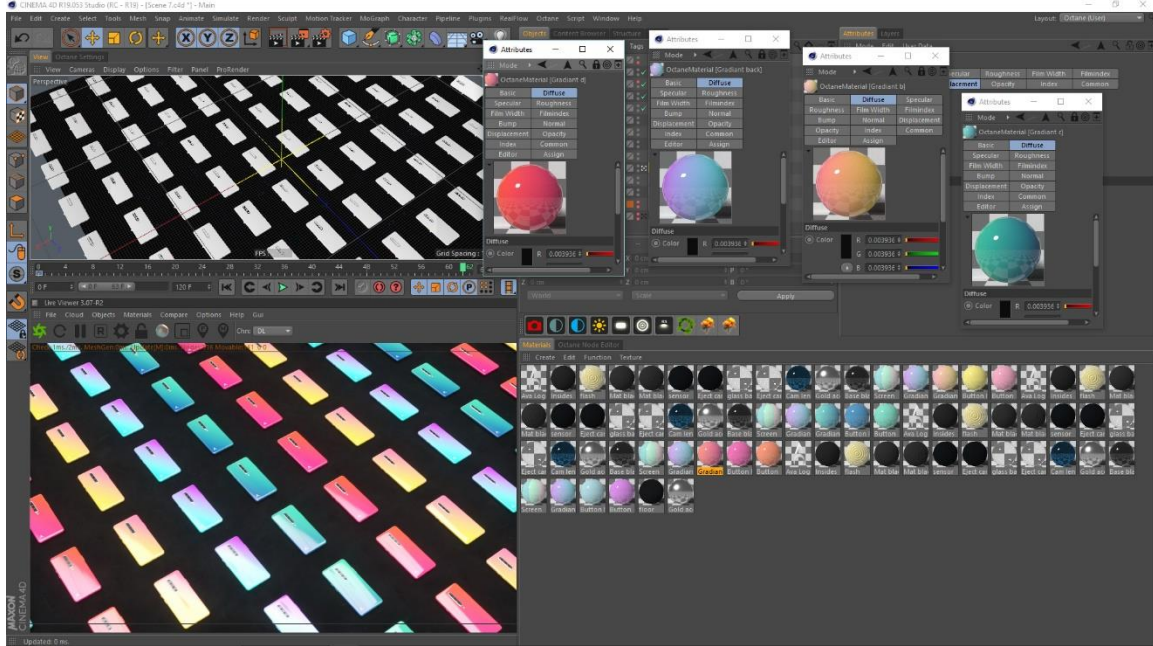


Figure 4.21: Gradient color material

Phone power people can know how much powerfully in this phone battery that why make this building and then using lights for highlight a city because a phone is very powerful to save you important time.

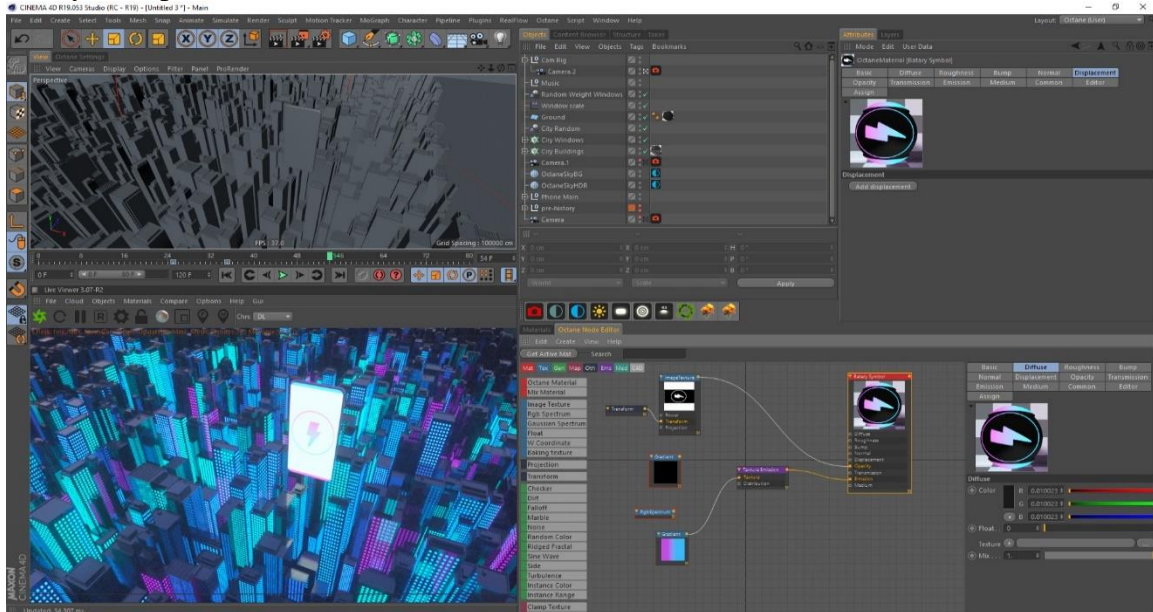


Figure 4.22: Charging logo to mobile

Adding imperfectness such as scratch on the building to get realistic look we created another shape with a scratch shape

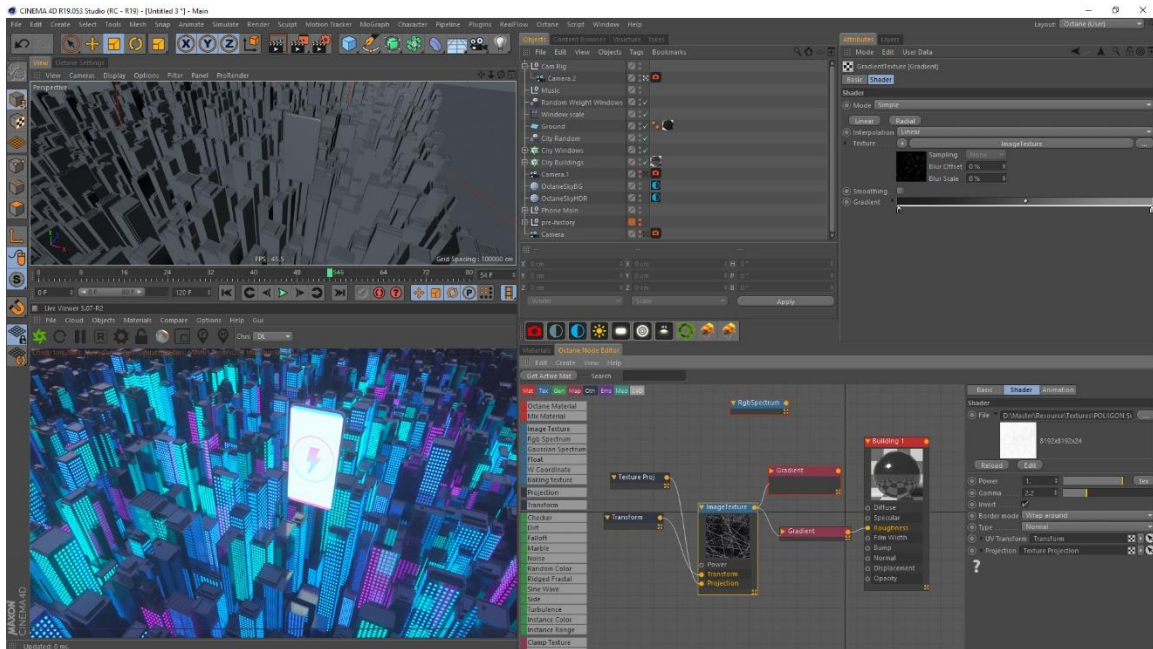


Figure 4.23: scratch material for building

Make it new rgb transform for the color variation and city make need many color at a time.

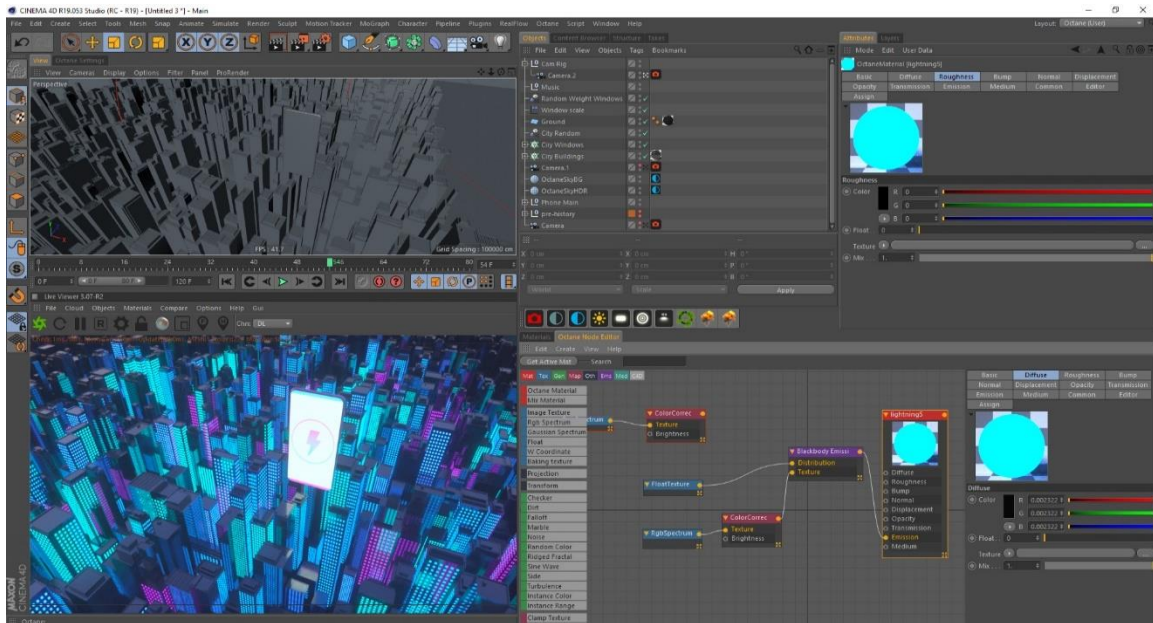


Figure 4.24: Giving color to building

Window is lights open then the whole city is lights on. That's why I want to create a opacity color material.

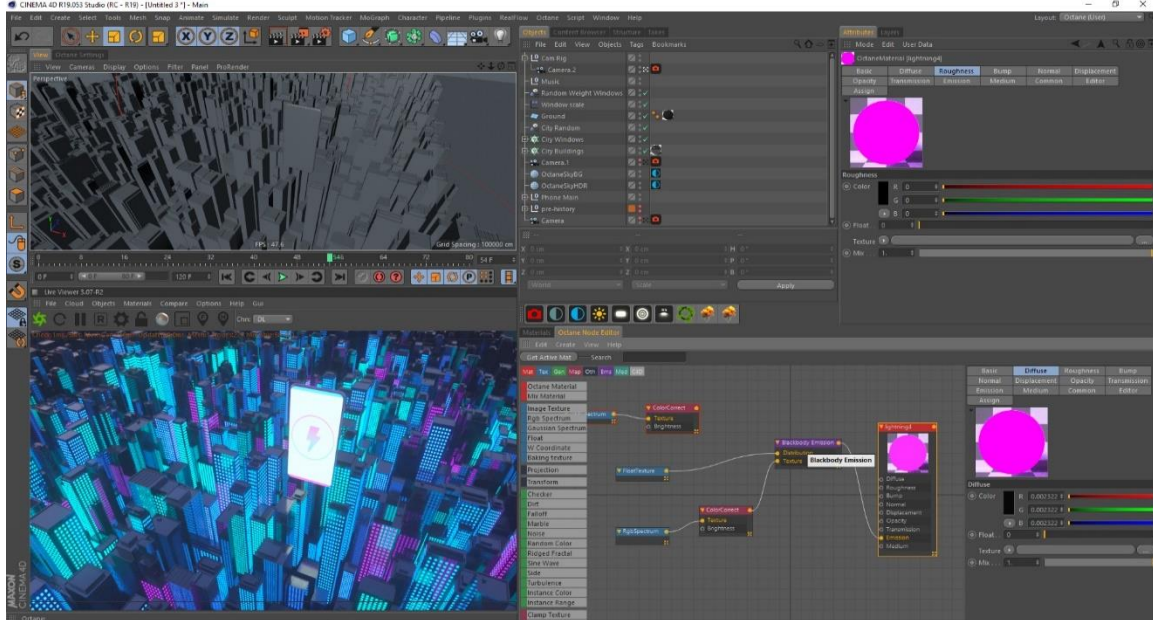


Figure 4.25: Giving color to building

Same Gradient material created for the plan change this position and try to is looking good.

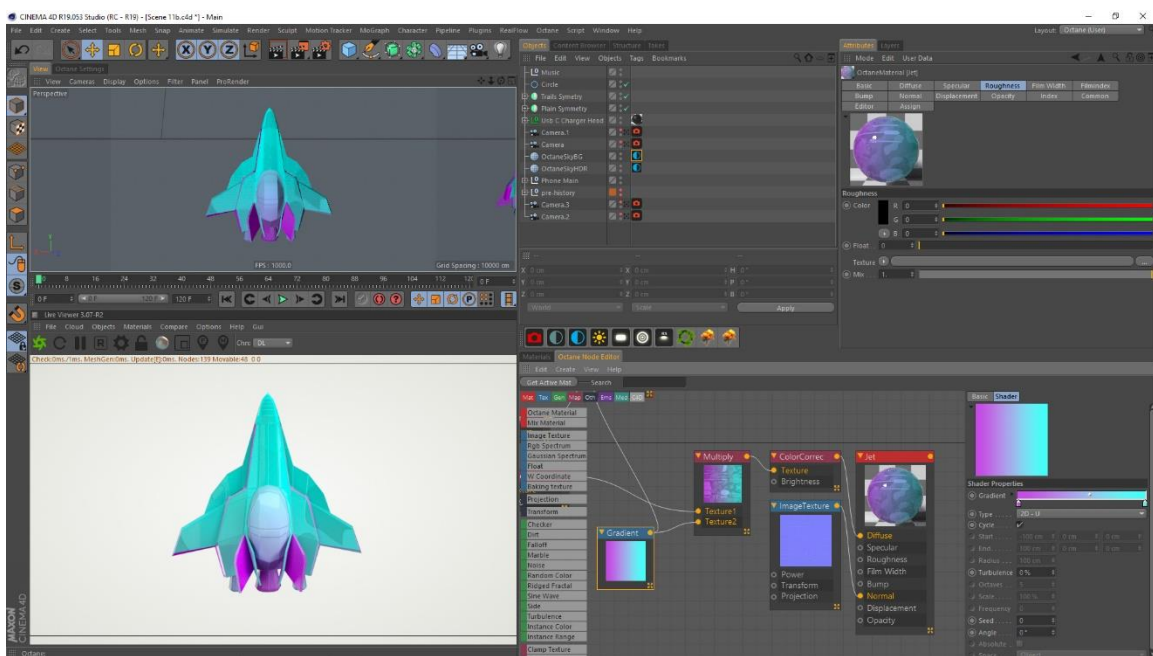


Figure 4.26: coloring jet

Making the charging logo material putting on opacity channel and diffuse channel like mobile logo

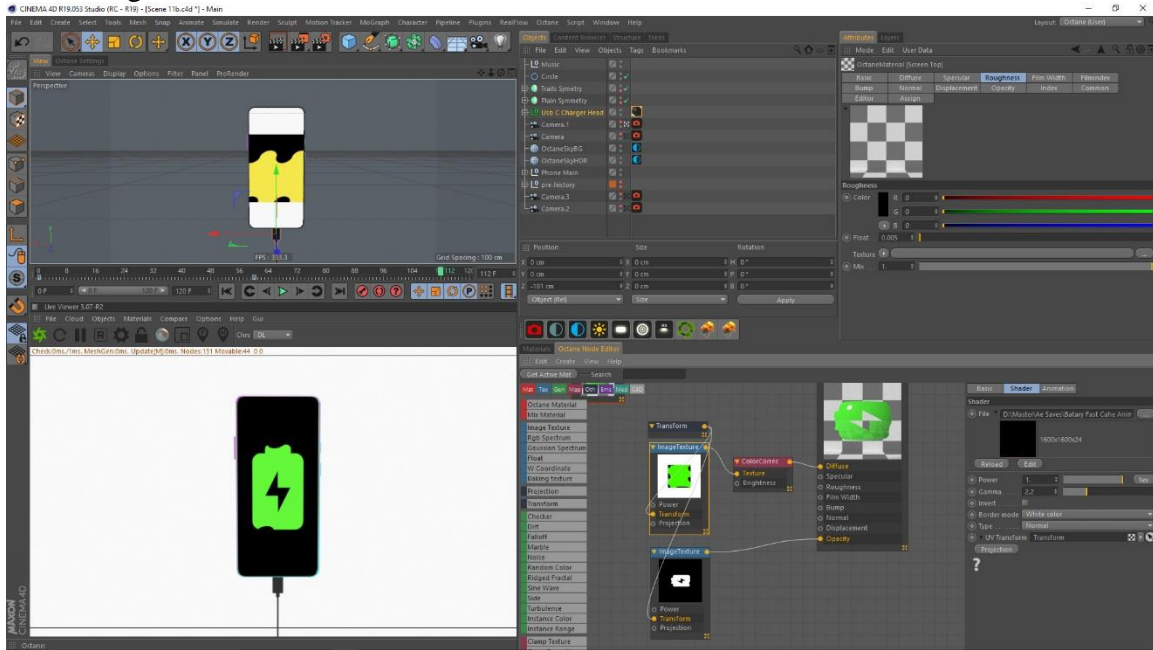


Figure 4.27: Logo for charging

The blaster for jet are given a white purple color material to look dynamic

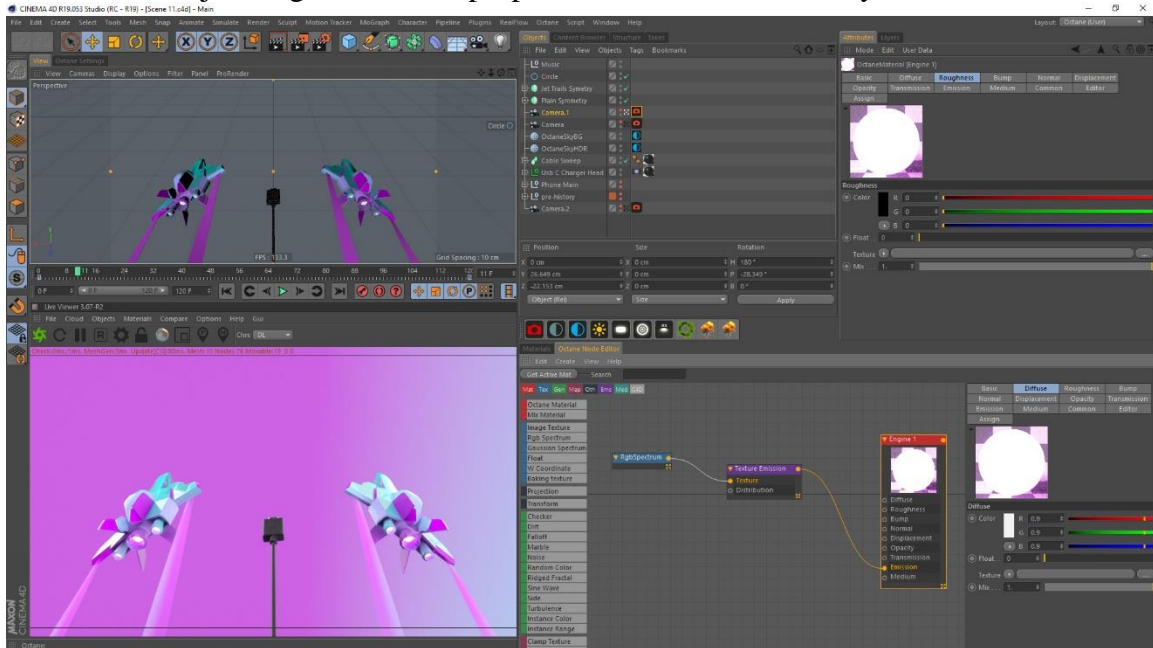


Figure 4.28: Jet blaster material

Also adding material to the trace by using soft black gradient on opacity channel and given purple in emission channel and purple color in diffuse channel.

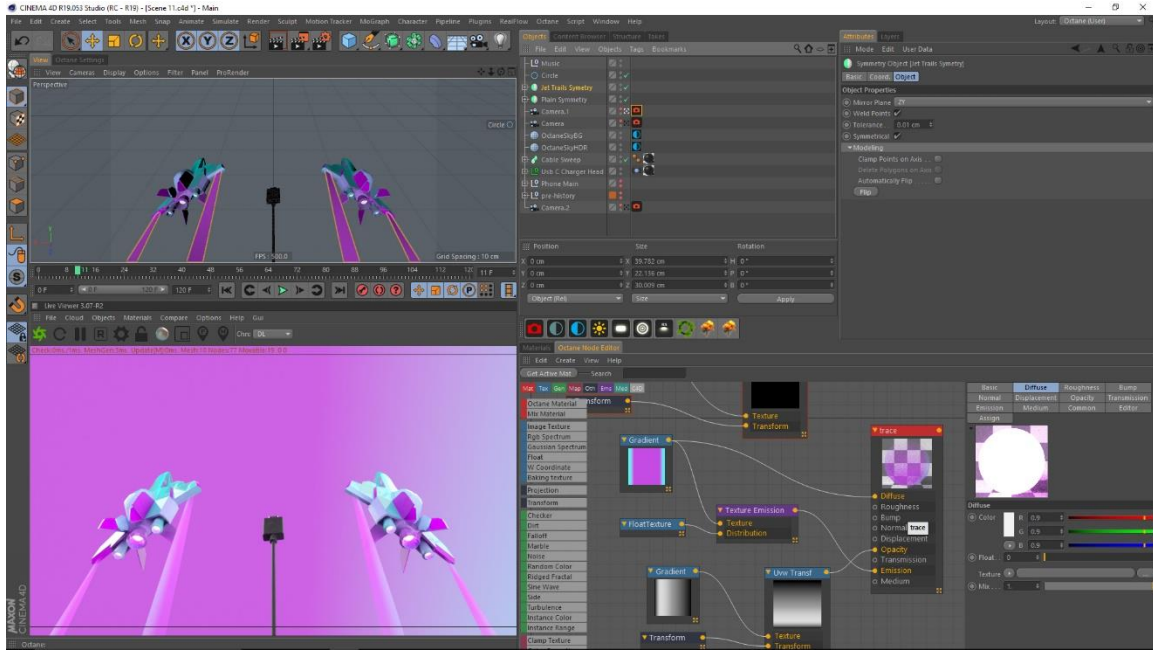


Figure 4.29: material for jet tracing

CHAPTER – 5

ANIMATION

5.1 Introduction:

We used key frame animation technique to animate our product of various scene. Key frames have been smooth with the help of curve editor. Then we animated scene from different Angles in attractive ways

5.2 Animation procedure:

Key frame animating for the step effector and getting that twist for the rectangle tunnel to twist while camera move forward.

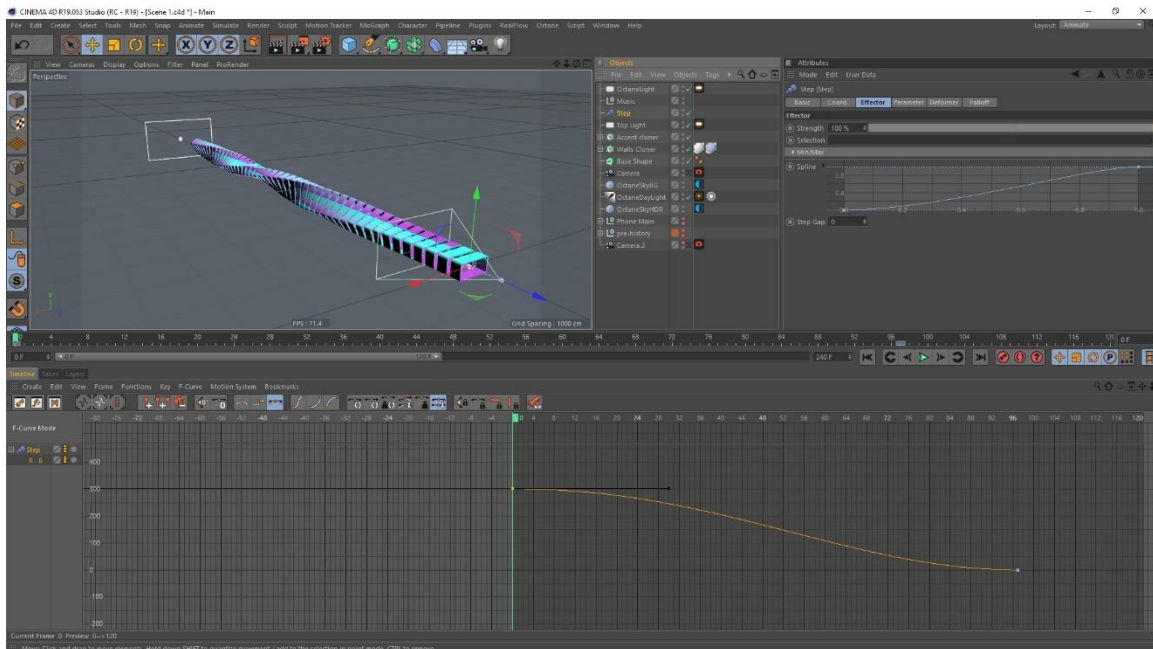


Figure 5.1: Animating the step effector

Smoothing the movement with curve panel for the tunnel twisting using effector with camera moving forward.

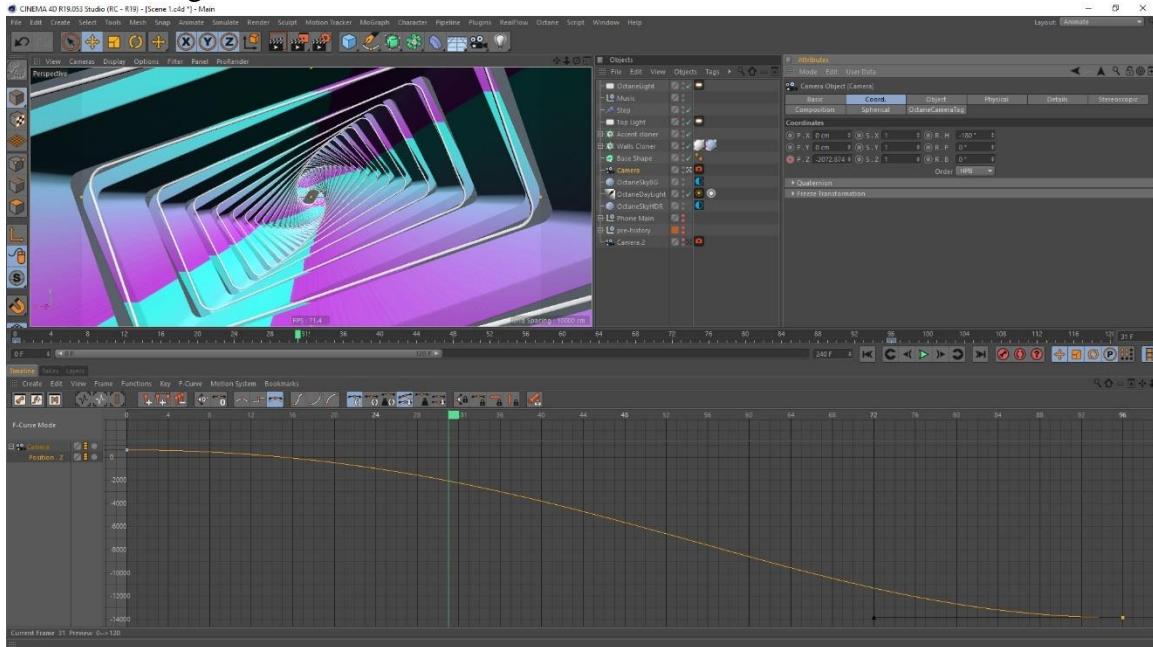


Figure 5.2: Animating the step effector

Setting key frame to animate the mobile phone in different axis and rotate this phone also camera animation with the phone movement.

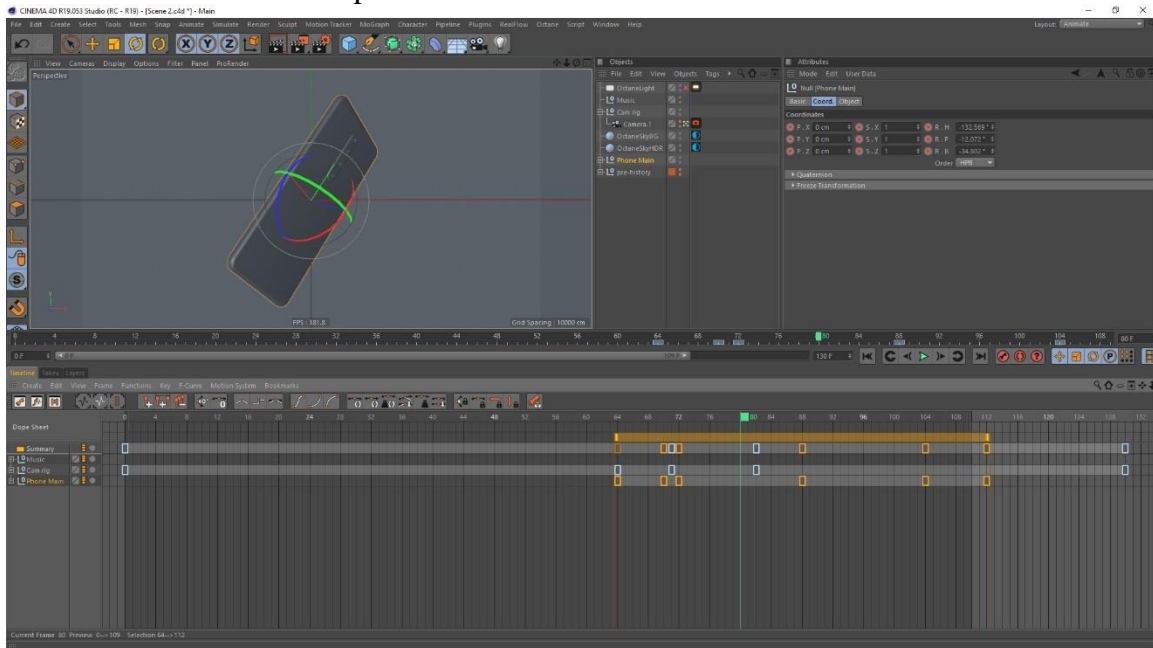


Figure 5.3: Key frame animating the mobile phone

Smoothing by the adjusting the tangent handle and getting that extra eye catching movement.

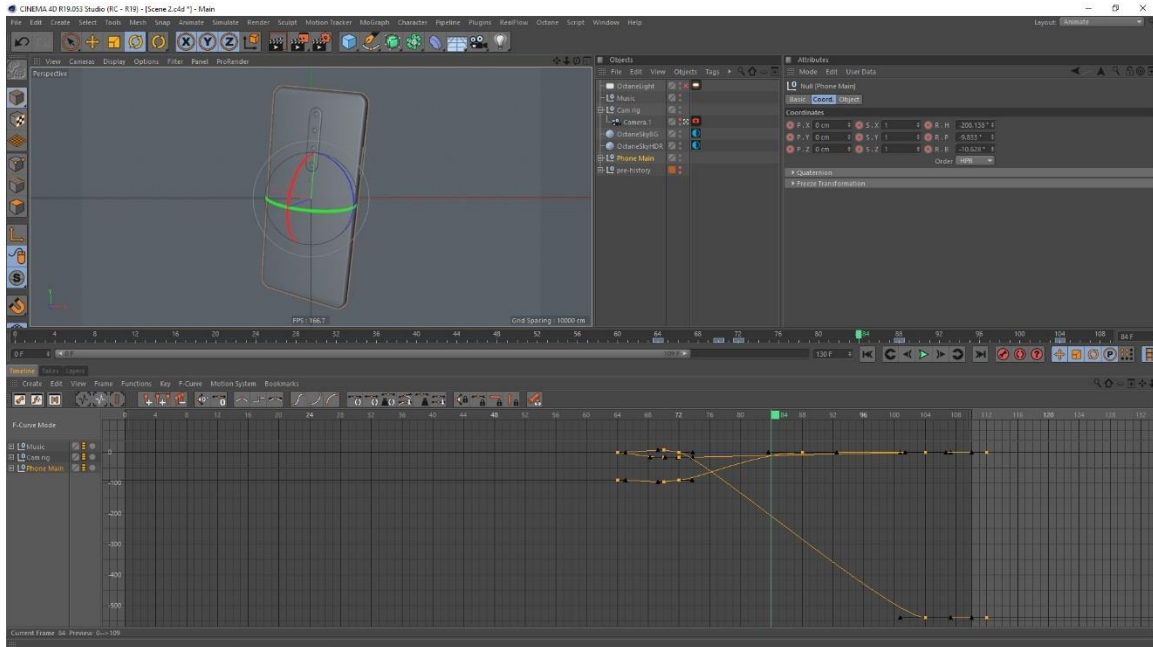


Figure 5.4: Smoothing the Animation by curve sheet

Animation path slow down for the smooth animate that's why use curves.

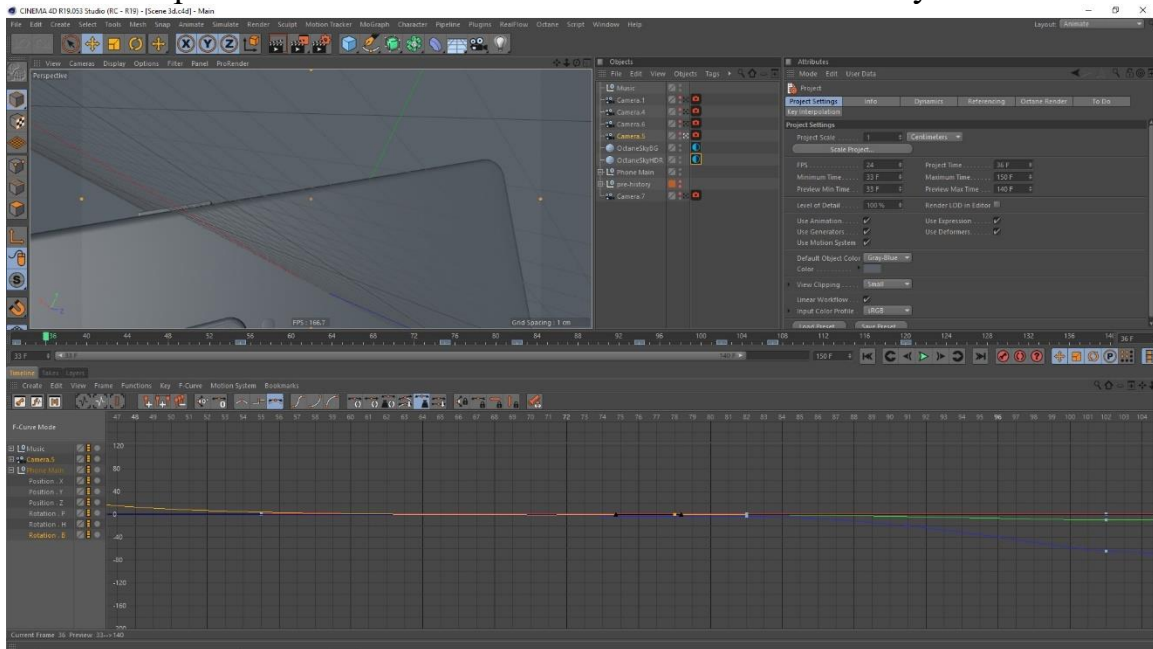


Figure 5.5: Smoothing the Animation by curve sheet

Tweaking the parameter in curve sheet and adjusting the animation pump up the spare and another hidden spare push down that's why wave fill create.

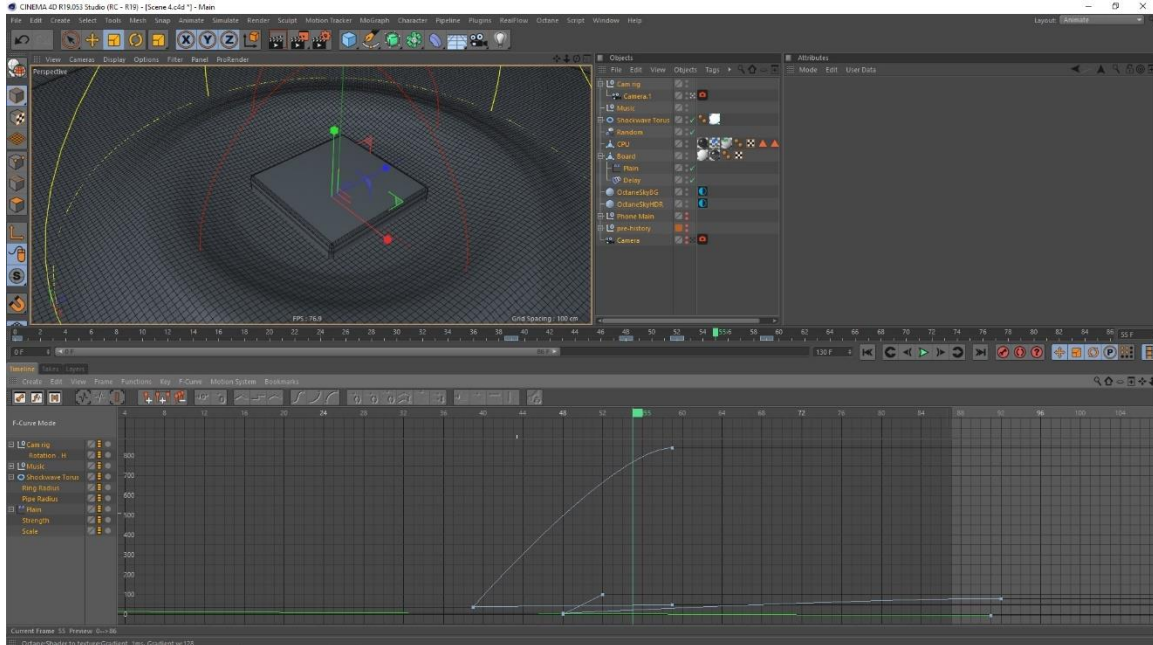


Figure 5.6: processor curve sheet

Use of the step effector to animate the lens various sizes and people can see all the leans is here and you can see it.

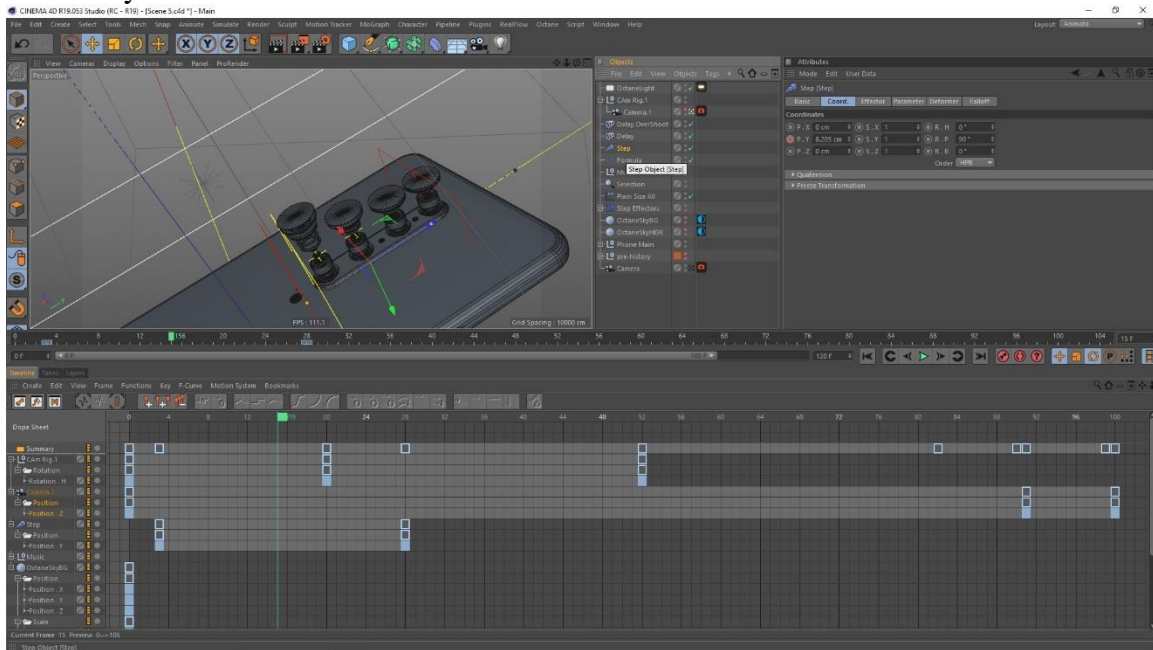


Figure 5.7: lens animating

Using delay and formula effector to creating interesting camera part and bouncing the camera lenses.

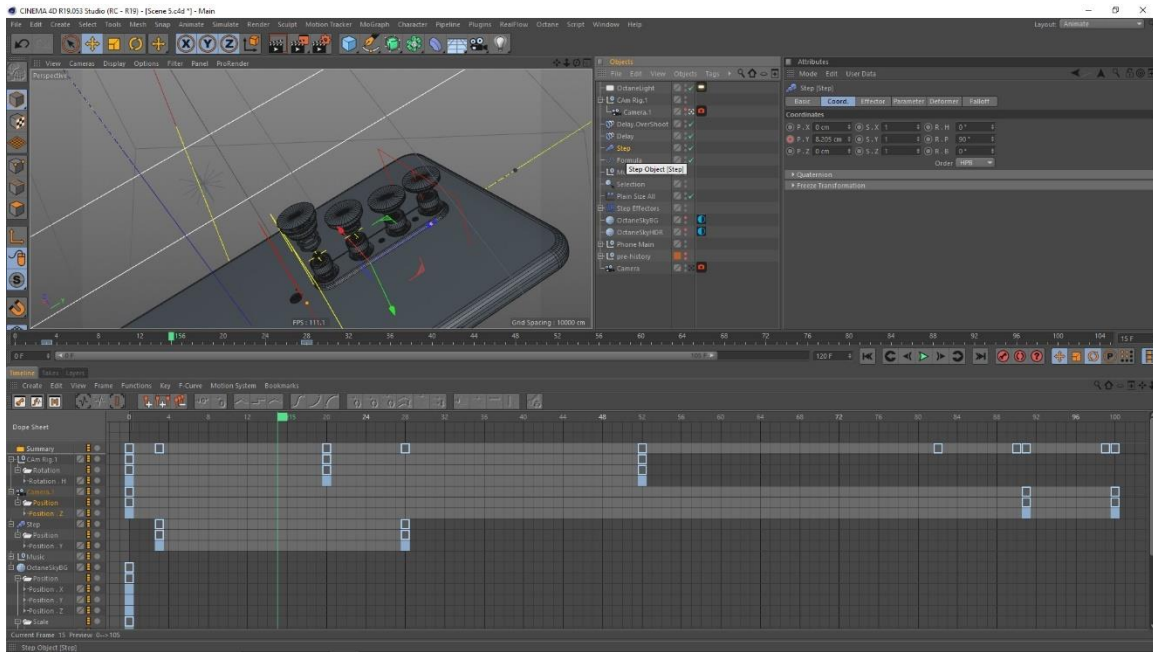


Figure 5.8: lens animating

Changing the curve of the animation key frame.

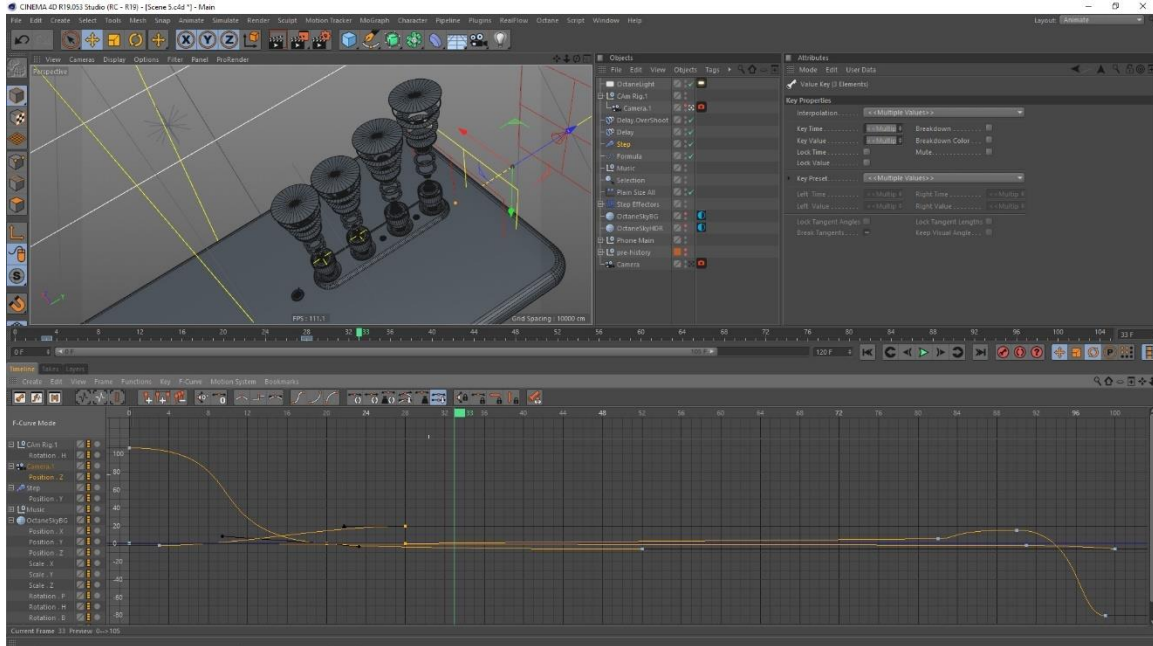


Figure 5.9: lens animating

Animating and adding key frame to the ball bouncing in an arc. And dropping on the phone that's time using the collider.

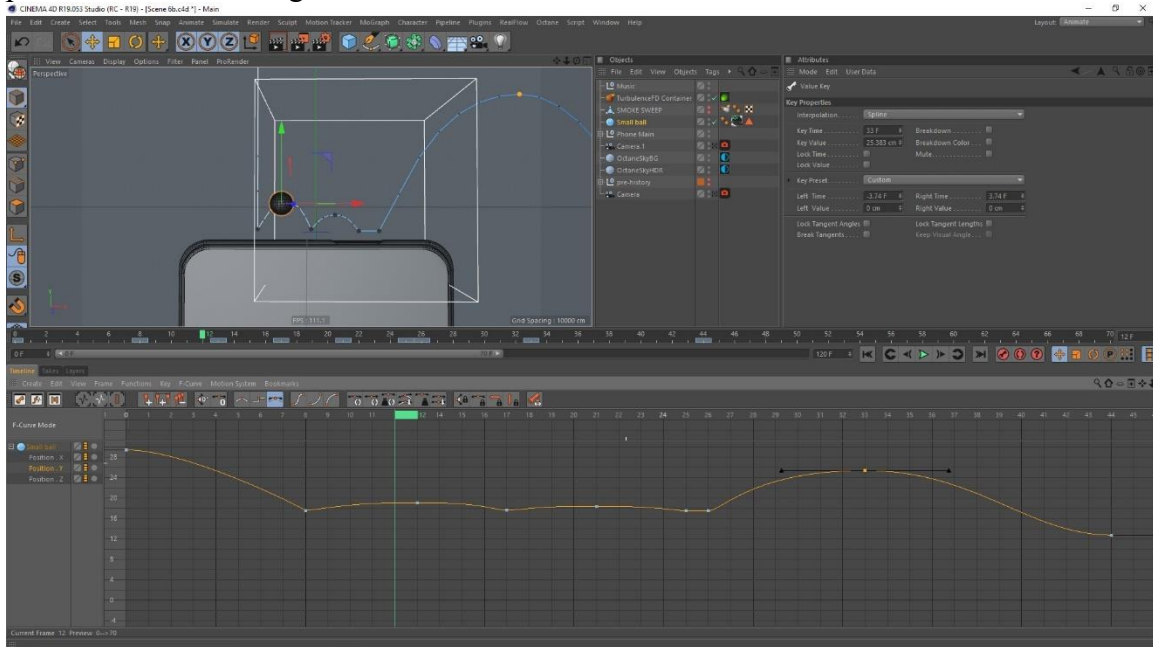


Figure 5.10: ball animating

Phone model is flipped is being animated with the help of plain. And 180 degree rotation on the phone to the see interesting part all phone fold but delay one by ones.

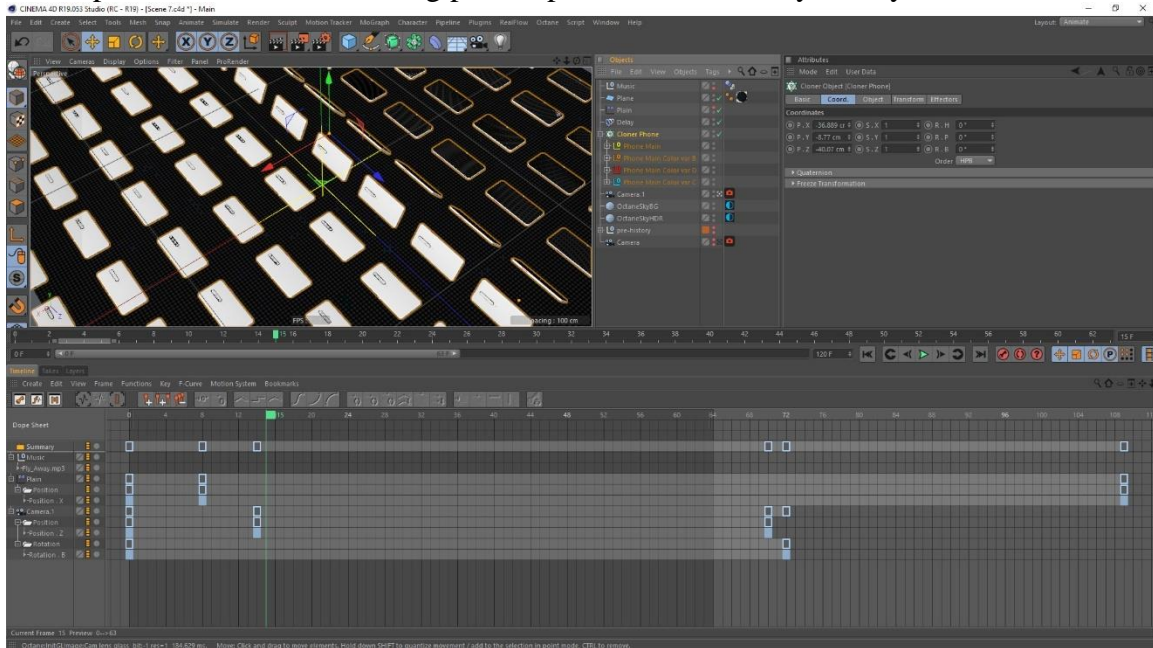


Figure 5.11: series of mobile animating

For phone make and using an effector to create this scene interesting that's why rotation animation and also change variation on the key frame editor.

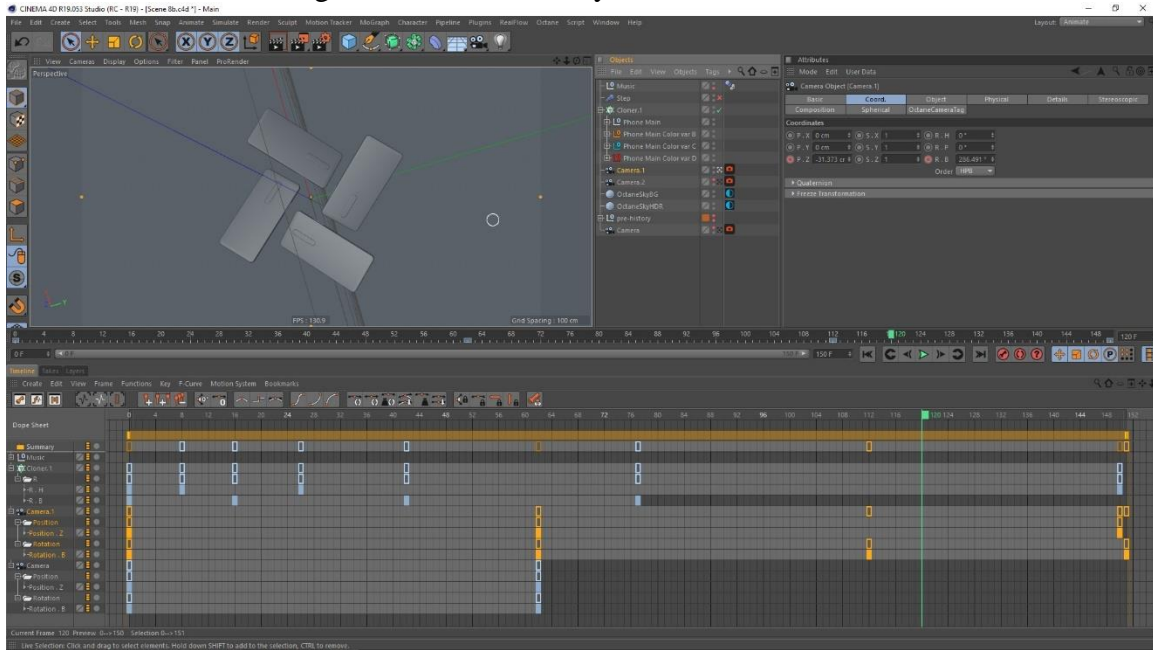


Figure 5.12: series of mobile animating

This is where the windows are being scaled to animate the lights when on.

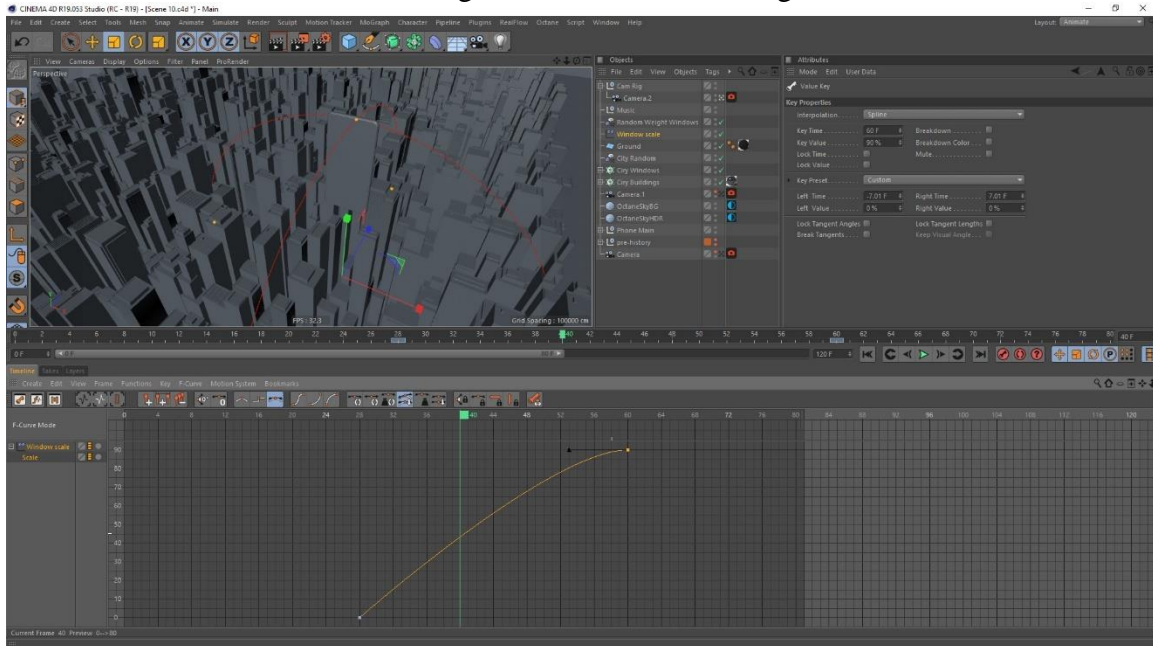


Figure 5.13: window scale animating

The jet manual position and rotation animate and the smoke like this effect follow this jet Interesting part is 360 degree rotation all the part.

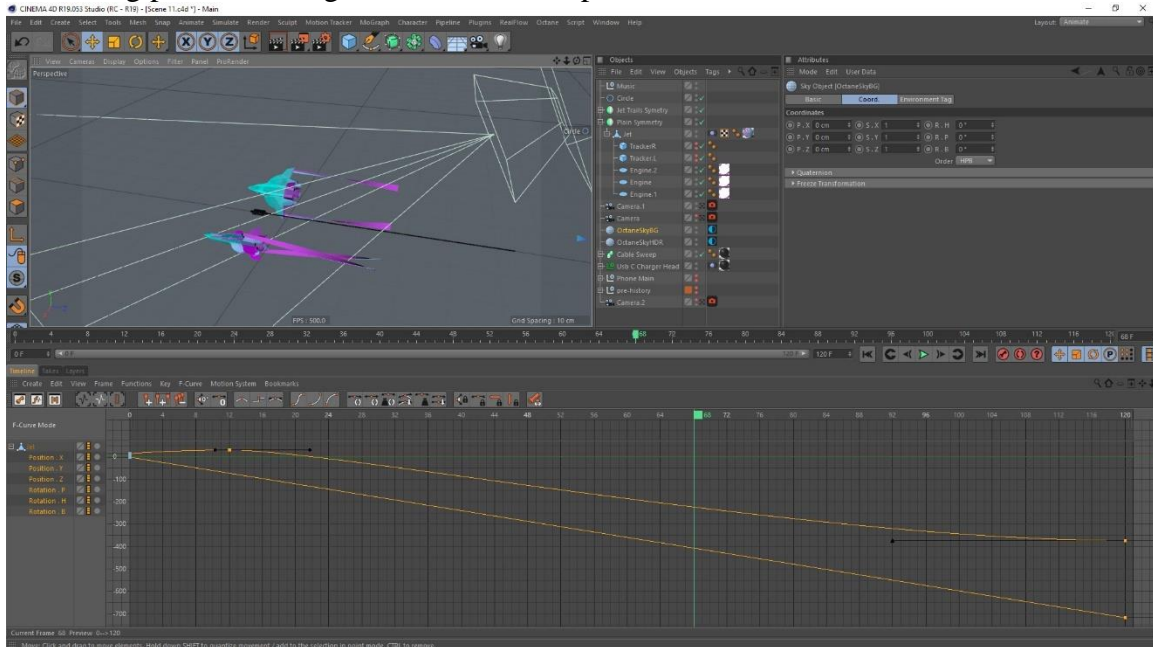


Figure 5.14: Animating the jet plane

Camera also following the jet link this camera with the jet.

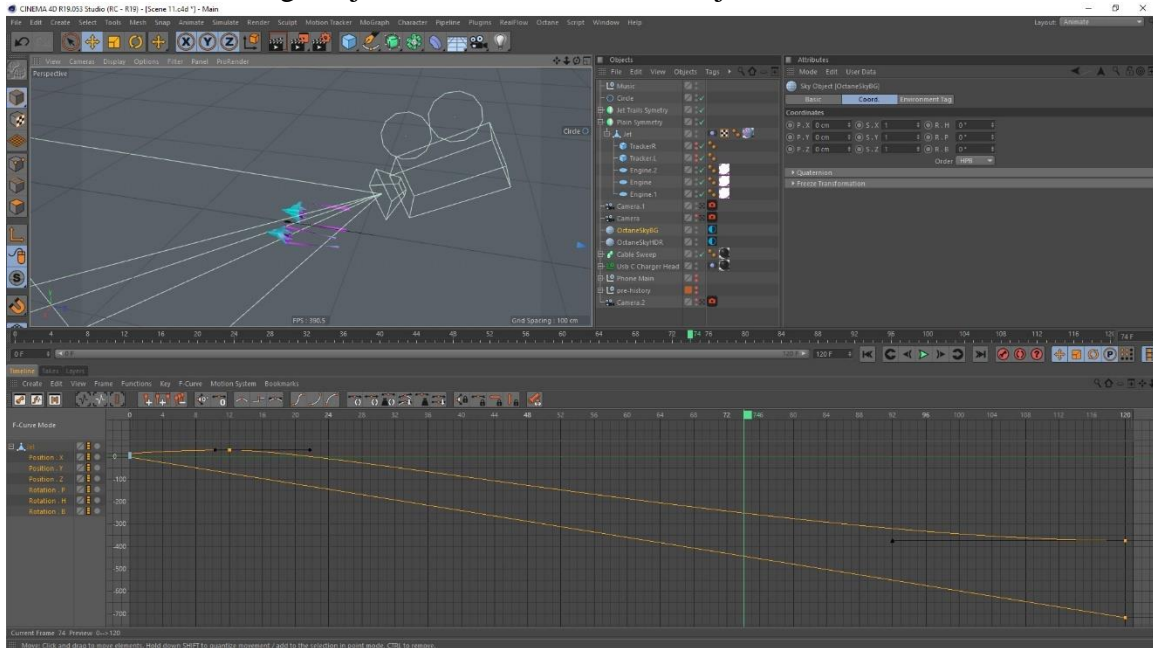


Figure 5.15: Animating the jet key frame

In After Effect the charge logo created with the help of wave effect and making the revealing

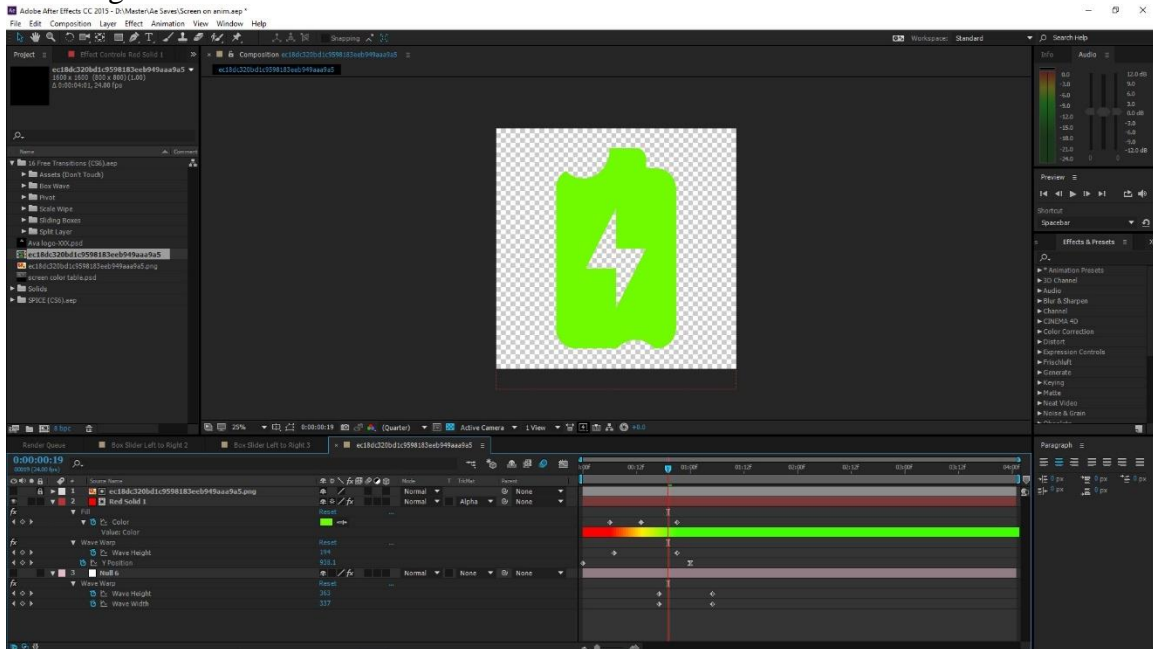


Figure 5.16: charge animating in After Effect

Applying and animating the ultra-charging option in scene

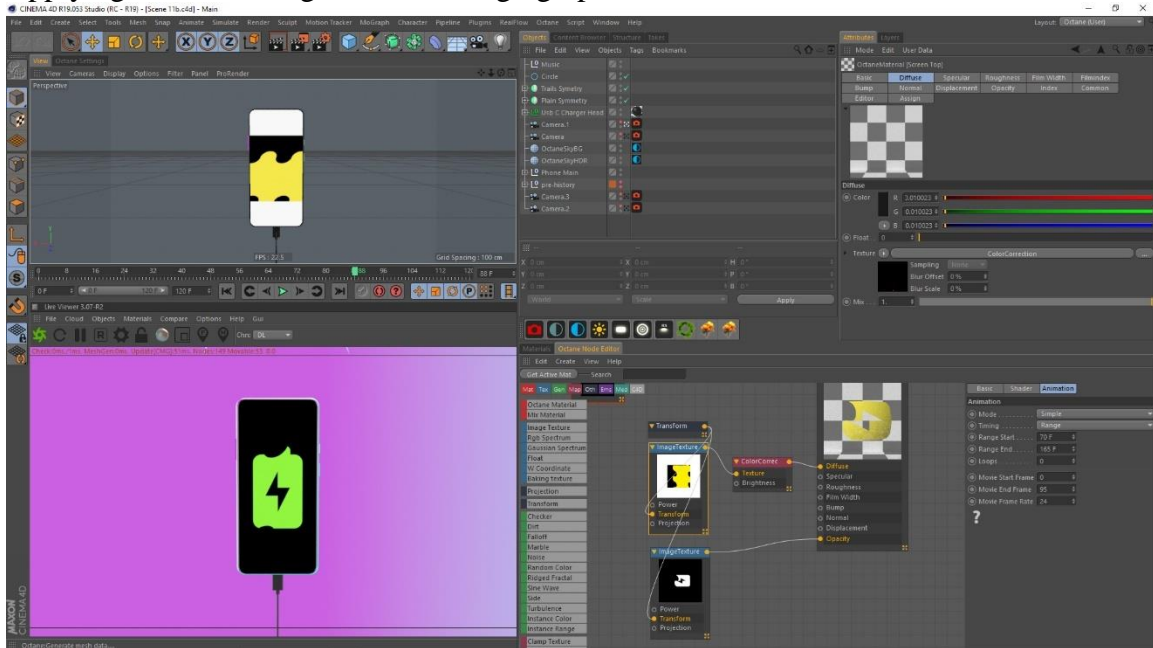


Figure 5.17: Charge animating applied

In After Effect the brand logo created with the help of solid and scaling and position changing.

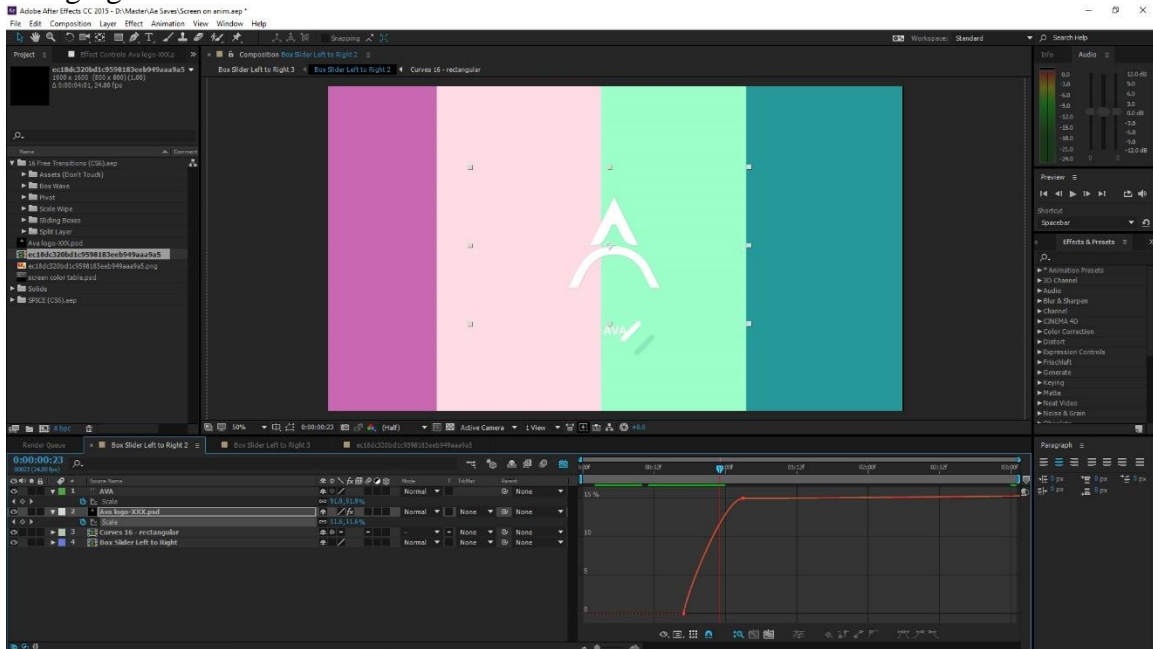


Figure 5.18: logo animating in After effect

Phone key frame animation and the after effects animation using like a template in the screen animate texture.

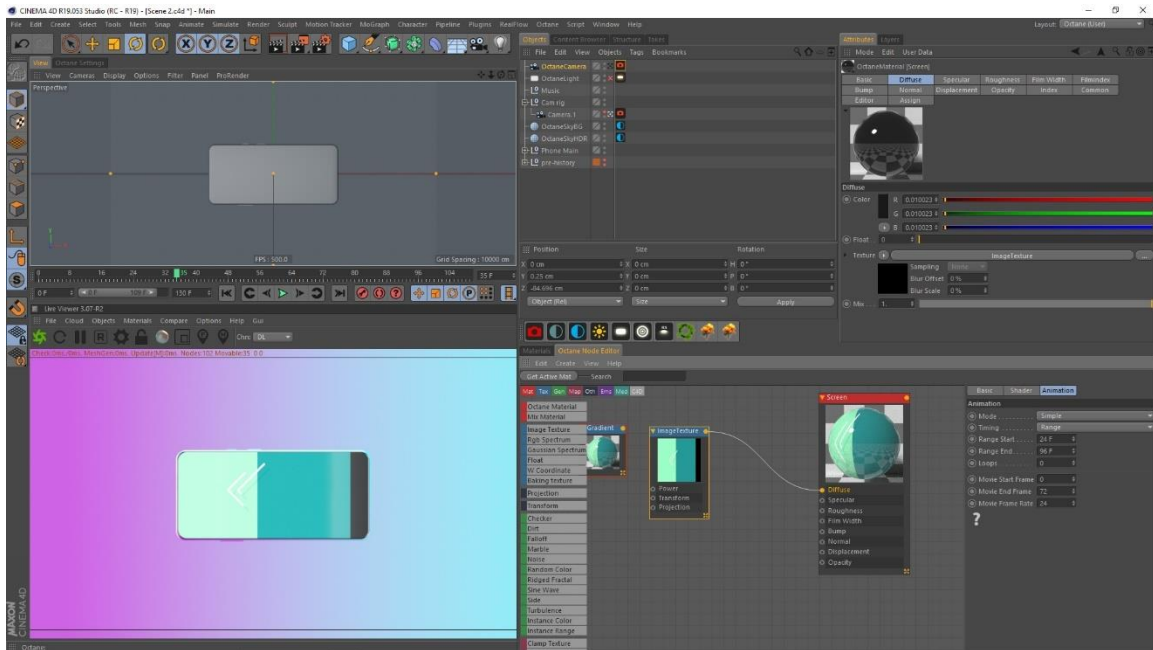


Figure 5.19: logo animating applied

CHAPTER – 6

AUDIO PRODUCTION

6.1 Introduction:

Music is very important element in the advert. The whole mood of the advert depend on this. Music keep the mind and engaged with the advert. we have tried to keep the advertising interesting .

6.2 Audio production procedure:

We have used FL studio to make our background music. Dram, Piano roll, kick, clap and other instrument, controlling the beat and basses for creating a music tract. Used the tract apologize ^[15] for mixing melody more pleasing.

Channel rack make this tempo then paste on the canvas. It's the first start tempo is not ready but I was just put the beat.

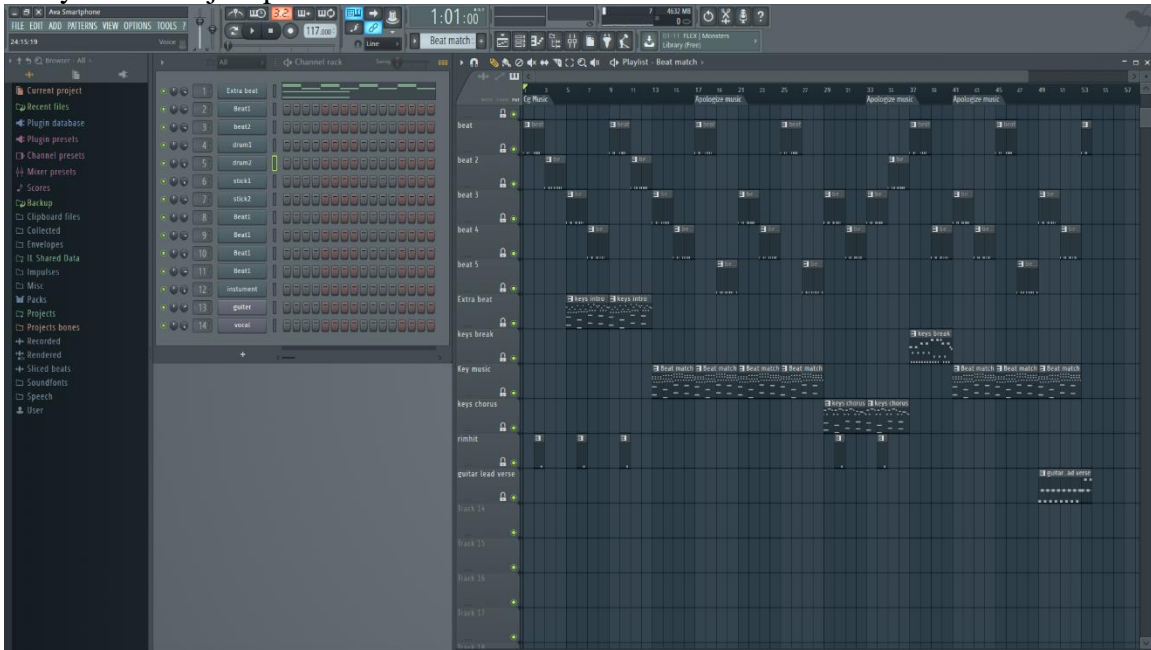


Figure 6.1: Final Output

Drum and guitar part add this section on the canvas make it interesting to listen for the product visualization type.

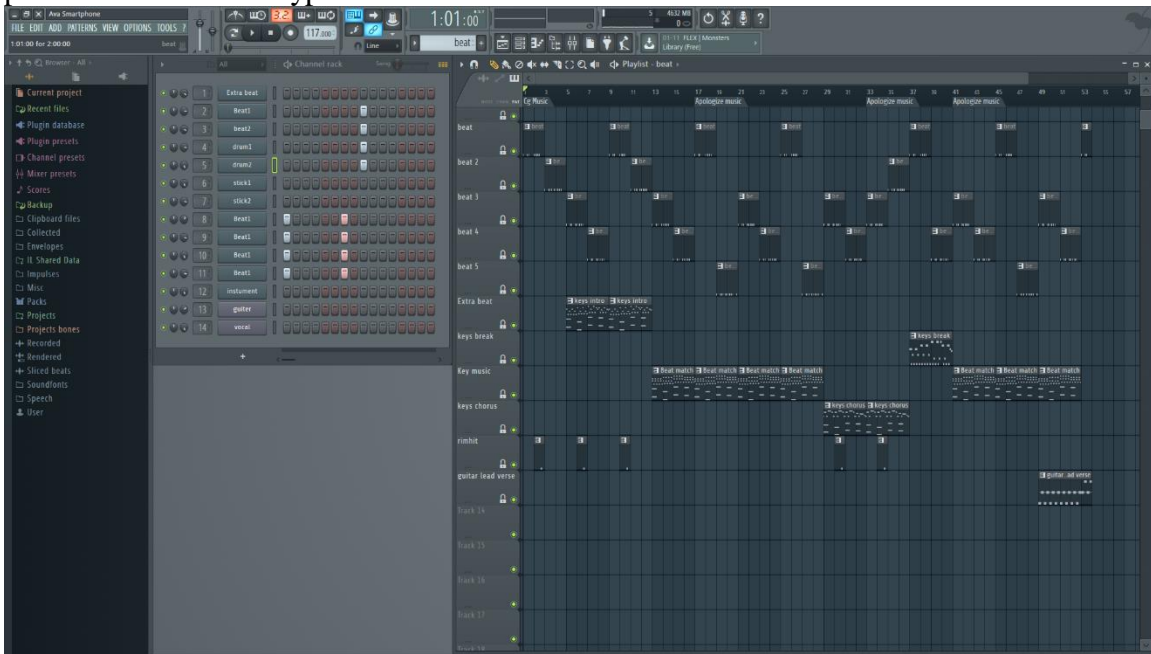


Figure 6.2: channel rack beat 1

Beat three and four adjust there and on the top of the drum and low on the guitar part adding for sound here good contact.

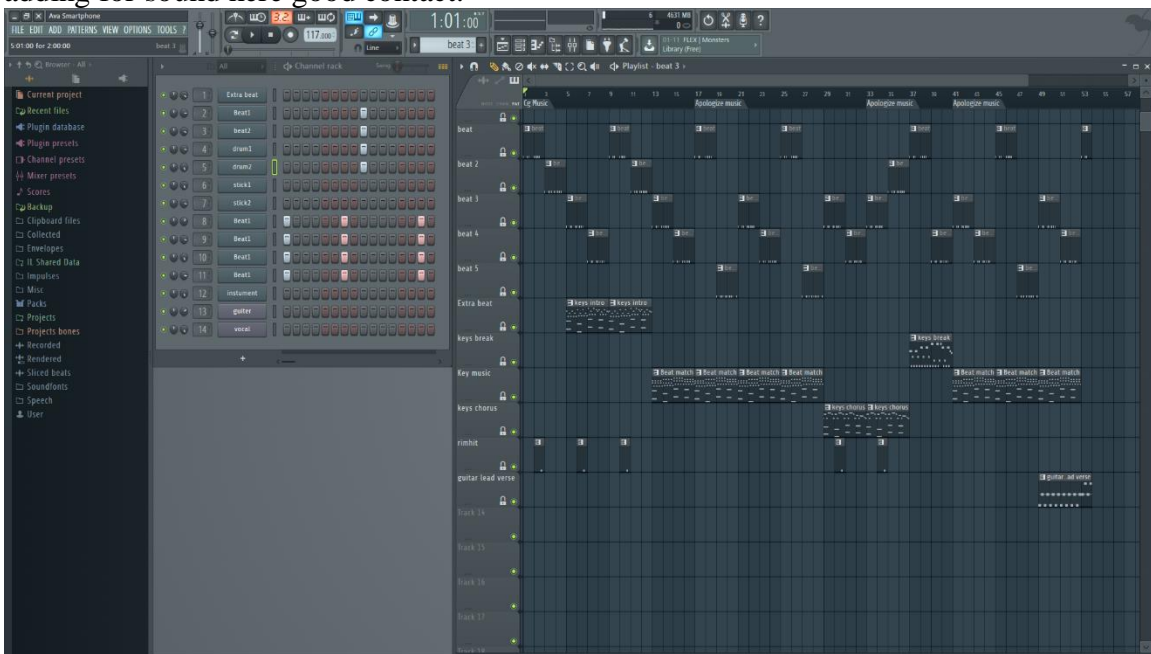


Figure 6.3: channel rack beat 2

Volume adjust tempo on this beat one. And make it parallel way to add this part by part in this canvas.

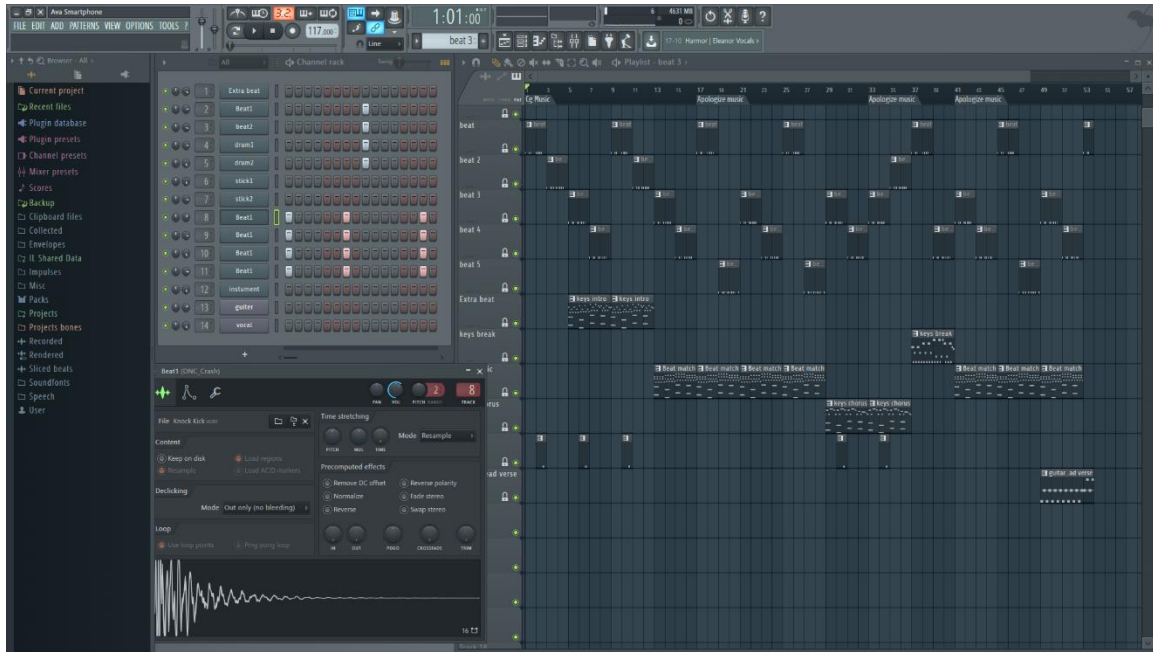


Figure 6.4: Music making

Play with piano and control this piano roll for my background music and control the piano bass.

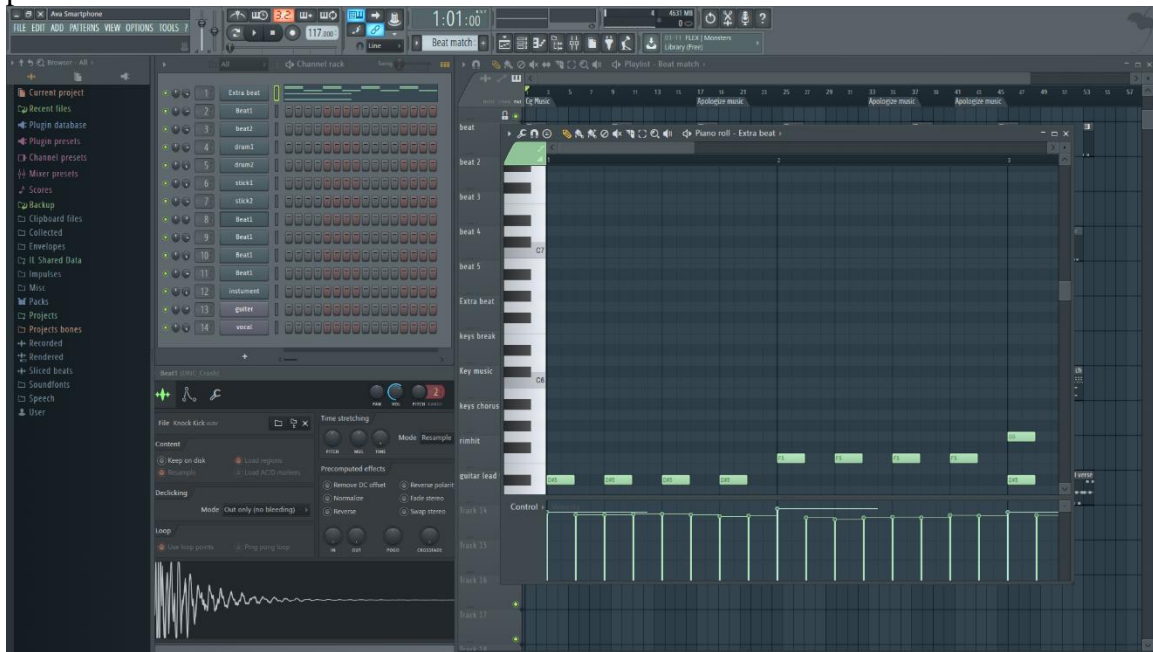


Figure 6.5: Piano roll controller

Piano roll and control this piano bass and volume sound tempo on this particular part. It's make fill so good because that time my sound is sounds good.

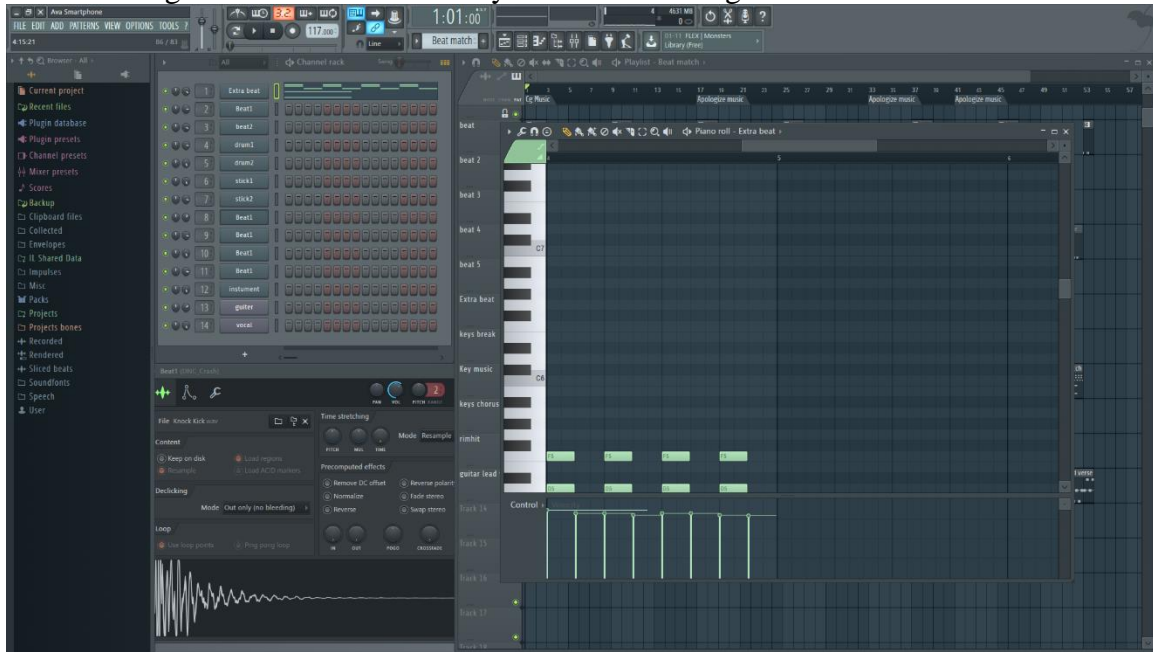


Figure 6.6: Using piano roll

My sound is sounds good that time some part volume up down to see how it can change what place is need to change.

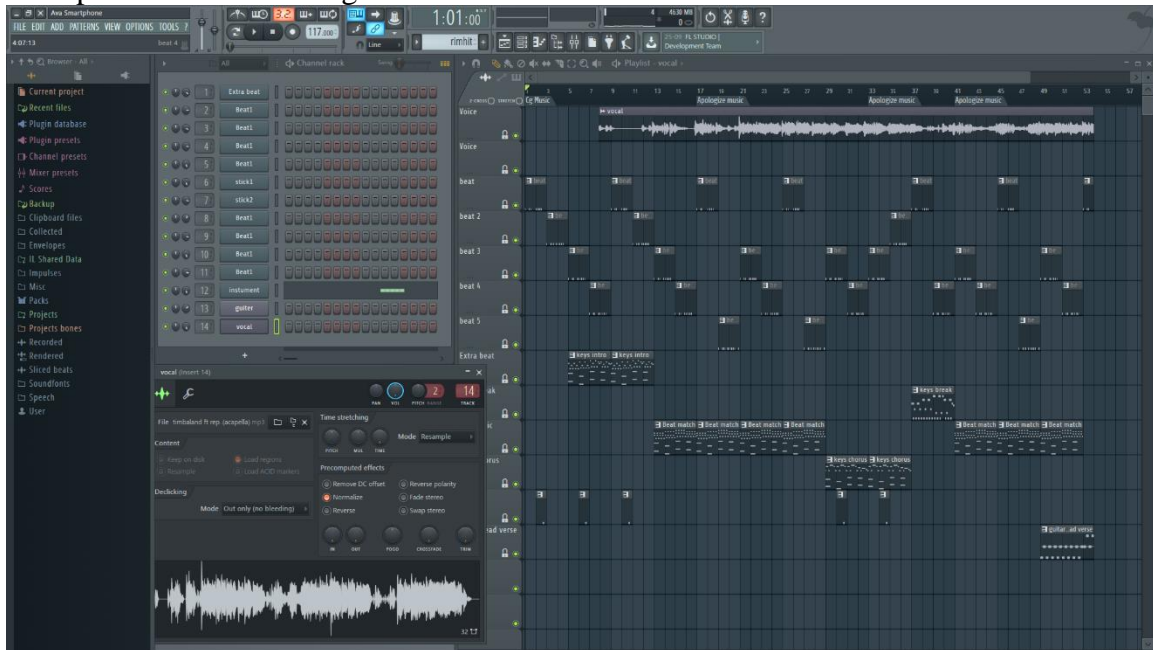


Figure 6.7: Using vocal match

Volume mixer to mix the music in this whole project where need to up and where need to down listen many times and adjust with headphone and speaker.

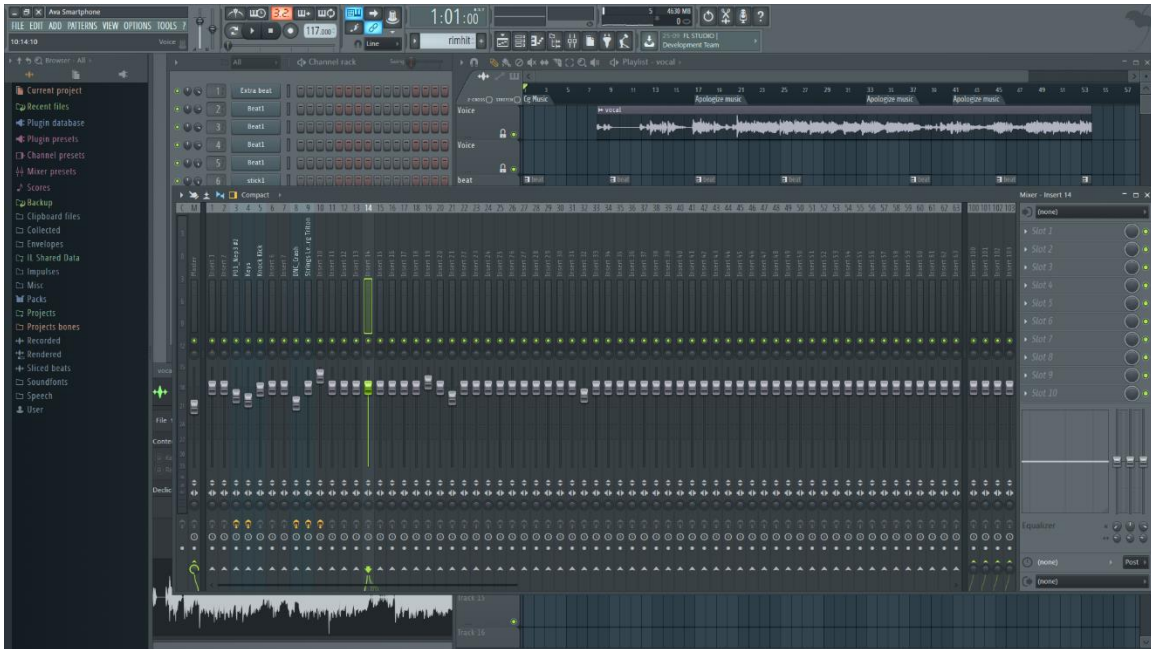


Figure 6.8: Music mixing

CHAPTER – 7

CONCLUSION

The ever-changing mobile landscape gives brands lots of room to be creative in how they market to consumers in the space. Now, rather than seeking engagement through banner ads or videos on mobile, advertising technology company has leveraged 3D adverts to help brands target and engage with their audience. 3d advert deliver a realistic virtual showroom experience on mobile, which is more compelling and immersive than traditional 2D ads.

This project will be challenging for me. Making a quality standard advert maintain color, concept building and catching the eye of viewers at the whole advert will be difficult. In our country 3d advert is not that much flourished because of budget issue. Local brands are not interest in investing 3d advert as it is costly but there are unaware of the fact that it is the most standard and abstract form to create consumers, also will give them much more return. With CGI, you can highlight your product's best features. With CGI, we can show our product from all angles, in different colors, and in all variations.

The concept of 3D mobile ads is certainly innovative in our country, but creating a quality 3D ad is no easy task. The high quality has to be delivered by showing mobiles attractive features frame by frame is quite a hard work. With 3D ads, shoppers are able to experience your products and explore them in more detail than through any static image.

Our target is provide a quality full CGI 3d Mobile advert which will be standard like those of Samsung, apple and others. As the technology is Bangladesh changing we should welcome 3d in advertising sector rather than only traditional live action.

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