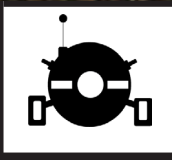


Benjaminn Adams -12454310

Media Projects 1 - MED3004M

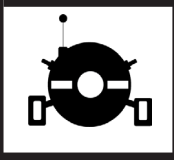
Module Cordinator :  
rfowler@lincoln.ac.uk



# C Contents

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# Proposal

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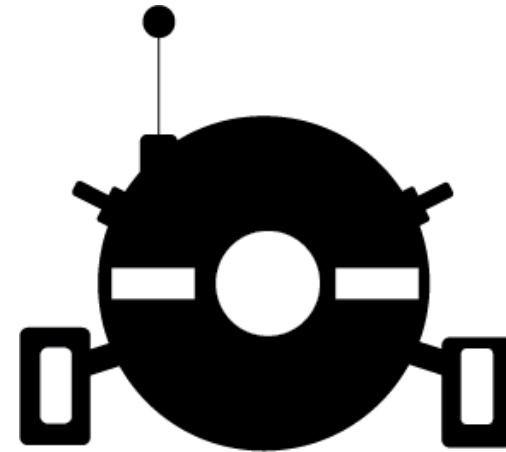
## What is the intended idea/concept of the project?

After refining my original proposal, I was able to come to the conclusion that for my semester A assessment, I decided on creating an online portfolio uploaded to three sites. These three sites are Sketchfab, Art Station and Gumroad.

I carried out some research into the timescales it takes to create game engine assets and the results I came back helped form what my output for this semester will be most users on Sketchfab and Art Station released a polished asset every couple of months or so. Based upon these results I plan on producing 3 high quality HD assets I can use next semester on my animated short. These assets produced will be mainly props and smaller assets. The general theme following my output will be along the sci-fi genre as I feel it lets me be more creative and experimental with my work. I will use these Gumroad as a means to bring everything together in a professionally presented package.

## How will this project extend your creative and technical skills?

This project will extend my creative skillset dramatically as starting this process my technical ability is limited in this field of digital media. However, I plan to change this by the end of the year. I plan to learn these skills through the 3D masterclass I am attending and I also plan to watch a lot of online tutorials that will take me through all the processes I plan on using. I plan to become proficient in Blender, Unreal Engine, Substance Painter and Substance Designer. In addition to

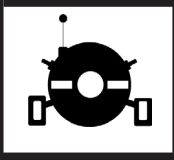


Logo for Recon Pack

what I mentioned earlier about Sports Sciences having a motion capture suite, if I am able to use this I would very much like to learn how to apply motion data to 3D assets for use in my own work. I want to learn how PBR can effect model texturing and the benefits of using a game engine for instantaneous rendering can affect my work.

On top of these influences I have been following a series of tutorials for game asset creation from start to finish using blender all the way through to Substance Painter. These tutorials are created by The Curious Engine.

Full link to Proposal online on blog: <https://benadamsdigimed.blogs.lincoln.ac.uk/wp-admin/post.php?post=72&action=edit&message=1>



# Aims, and Objectives

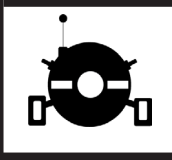
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## Aims

When putting the proposal together I made sure that aims and objectives were set as this way I could make sure that my project served a purpose. The overall aim for this semester is to create and texture my models and the package them all together in one neat package for other media individuals such as game designer or perhaps a amateur film producer.

## Objectives

Throughout this process i have been working towards the main aim. However I was able to set some objectives that steered me back or developed my personal skills for the better.

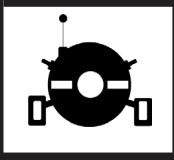


# Target Audience

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## **Describe the intended audience:**

The intended audience/platform for my portfolio is to be uploaded to are three different sites. These sites are Sketchfab, Art Station and Gumroad. The reasoning behind these are after researching into the difference in portfolios for Video game and Film assets. Generic Film showreels don't fully showcase my intended outcome as you only are able to see the asset in one scenario. Whereas as uploading my assets to sites such as Sketchfab and Art Station suits my requirements for showcasing High res assets ready for gaming or for use in amateur science fiction. This is because Sketchfab allows for full 3D rotatable viewing of models that interact with dynamic lighting, in addition to this it allows features a view mesh tool to show how the model is made up. Art Station also allows me to upload stills of my assets alongside the various maps associated with the model all presented in a professional standard. Something both these sites have is an active community which will allow me to receive feedback that will benefit the quality of my work. Finally, when it comes to uploading my work Sketchfab and Art Studio both have plug ins for Substance Painter that allow for easy publishing.



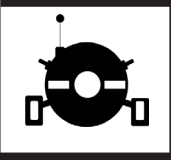
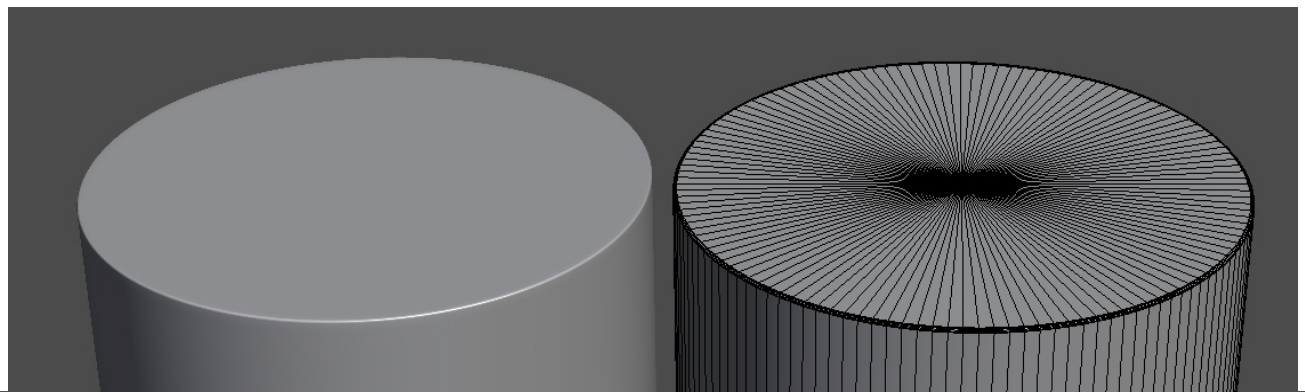
# Influences

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Across the whole development process i was inspired by various pieces of work and objects around in me to help inform my creative choices. When creating the models I would often let my brain flow and then at the end go through and tweak them to bring them back on track. I found that this way I can have a greater creative influence over my work. In addition to this I also I was inspired by a particular style of modeling which called this Hard Surface beveling. The finish you get from these type of models seem that much more HD and aesthetically looks better this is because light is able to play of the edges of the model that much more now.

As the proposal states that I am looking into science fiction film I started focusing on futuristic designs and materials that i could potentially be influenced by. As i found the way light and dark colours combine to create difference was almost soothing. As i mentioned again in my research about different 3D modeling engines and decided on using blender as my modelling software was another influence as like many of the reviews I have heard blender is easy for beginners to pick up.

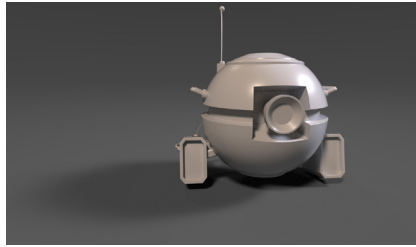
Example of Hard Surface Beveling



# Developing Concept

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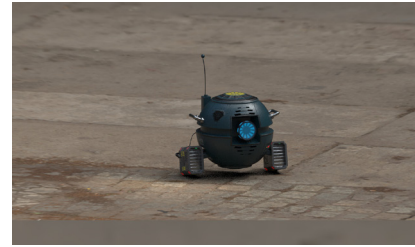
Blender export



Height Painted



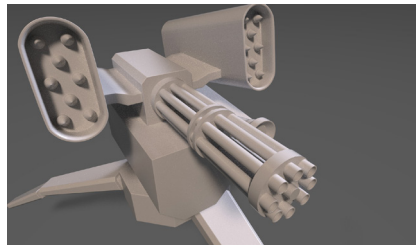
clean texture



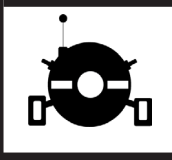
mud texture



I went through a few concept stages during the development. This was apparent on my sketchfab and art station profiles. The first stage I had was the Blender export file where it is just the core shape without any texture or height painted on to it. The images below show the development of the models.

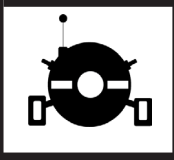


Once all of the models cores had been modelled, I then took it through to substance where I began painting into the height channel. I added decal like rivets, vents, fans and the grooves between where panels would of been. All of this simple detail breaks the surface making it engaging to look.





The last two stages is when things change appearance wise as the model gets a core paint more mid level is painted in such as lights and engine detail. I used substance to paint in all the detail, i found that the mirror modifier is good on models like these as they are quite symmetrical. The last stage is to add a bit of enviromental detail onto the model this would change depending on the models enviroment. The example shown here features a bit of mud and small refinements to other parts of the model





# Research and Development

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Over the course of the Project I had to teach myself new skills to develop forward. As I was teaching myself these skills I did research into what it was I was doing and how these could potentially aid my finished film asset package. All of these skills helped me inform my creative decisions that were imprinted into my models you see now.

## **Boolean Operator**

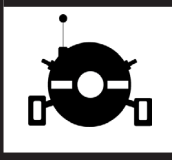
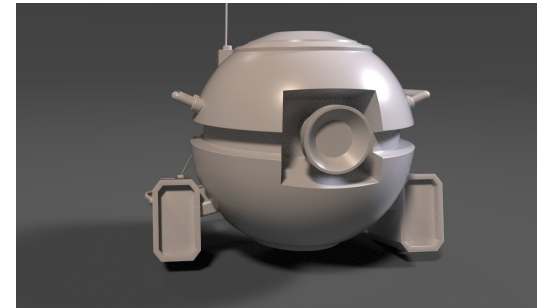
The first major tool that I had to learn to use was the Boolean Operator. I used this to create the indent and cut aways featured on my model. This took a while for me to get my head round it, as I found out if you have subsurface modifiers still active when you cut out the area you want it will also smooth the cut out resulting in a distorted mesh. I've found that if you do a save before and then applied the subsurface modifier you will not be able to cut out the shape you want without the risk of it getting distorted.

## **Subdivision**

If I was using any shape with a curve such as cylinder or sphere I would use the subdivision modifier as it would smooth the entire model. However in doing this you will be then required to manually hard bevel out all the edges for the model to return to its original shape. This came very useful when creating the remote eye on each model as I was able to keep some curves whilst making some of the others crisp. I will definitely keep using the subdivision modifier in future models as it gives a very nice effect. In addition to this I now save before any modifiers is applied as subdivision modifiers once applied can cause the computer to slow down a bit as it needs to process that many more faces.

## **Quick Masks**

I began looking into quick masks when I had to do some very careful painting in a groove. As I didn't want anything going in the wrong places I started using quick masks. The addition of these allowed me to go into a lot more detail when painting small area in great detail.



# Hovercraft

At first I wasn't too happy with this model as I thought the base model I exported out of Blender looked very boring and plain. It wasn't until I brought it into Substance Painter and started adding height detail that it started to come together. I spent a lot of time on the engines in this model as I felt that they are a big part of it. The emissive material aids the height painting once again as it breaks up the blank faces resulting in a more detailed model from a distance.

If I was tasked with making this model again I now realise what things need to be height painted in before all the other textures compared to putting it in after the model has been painted.

## Links to external sites:

<https://www.artstation.com/artist/benadams>

<https://sketchfab.com/benadams/models>



# Turret

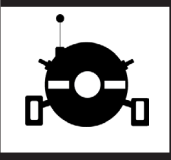


I was very happy with the finished outcome with my turret and it looked even better when I ran it through Substance's Iray renderer. The lights suddenly just popped in colour making the model feel more vibrant. I feel that I balanced dirt and the base coat of the model as its visible but isn't so much on that it overpowers the Turret. During this model I encountered a couple of difficulties. The first example is that when I imported out of blender and into substance of the modifiers that I had applied earlier was causing a bit of back face culling and creating small tears in the mesh. After speaking with my tutor I overcame this by disabled the smoothing modifier and did some hard edge bevelling.

## Links to external sites:

<https://www.artstation.com/artist/benadams>

<https://sketchfab.com/benadams/models>



# Drone

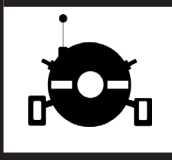
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Looking back at the production of this model i encountered many challenges that i had to overcome to carry on. The main challenge was that when I initially modeled the first version of the model and then extruded back into the model to create depth. However when imported into substance it caused a graphical tearing as where i had extruded was quite close to another face/ edge and they were colliding. The same thing happened when i extruded in the area where the main eye sits. Once again the corners where i had beveled had created a distorted mesh. After further research and a 1-2-1 meeting with my tutor we decided that the best fix would to use the boolean operations. This is when you use a another shape to create an indent of whatever the stamp's shape was. As it is another mesh it mean that I could bevel out the edges so the imprint would also have beveled edges. I was again spent a long time on the engines giving them a lot of fine detail to make them stand out. If I was to make this model again I would spend more time adding more paint decals to make it look more unique.

## Links to external sites:

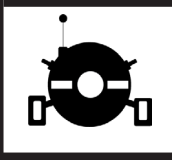
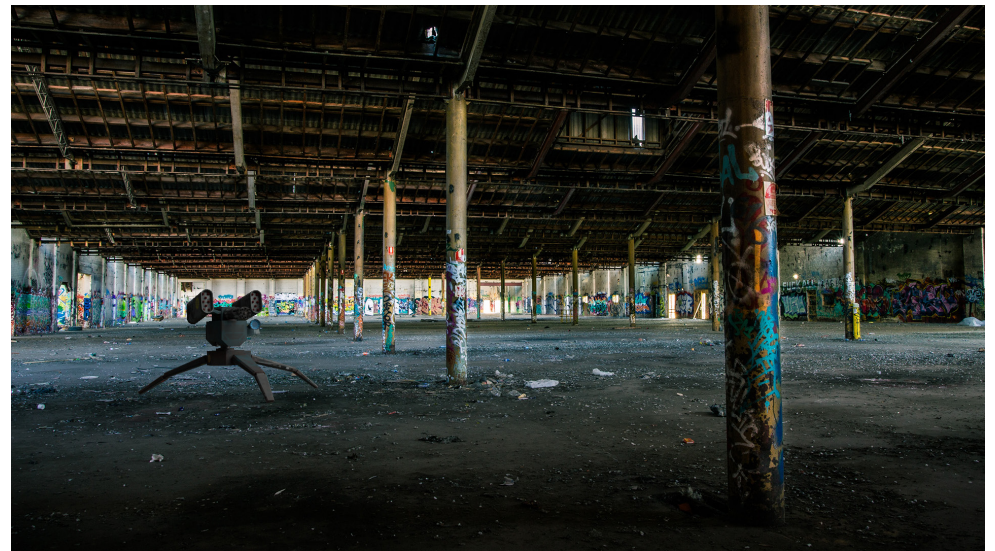
<https://www.artstation.com/artist/benadams>

<https://sketchfab.com/benadams/models>



# Pbr Stills

I managed to get some stills rendered with my Models in an environment to show users that it is suitable for sci-fi film making. The light also casts shadow and reflects off the surface to simulate the model being real. These images were made using blenders inbuilt renderer. If I had more time I could've spent more time on these just to get them fully looking like they were real.



# Production Outcome: Recon Pack

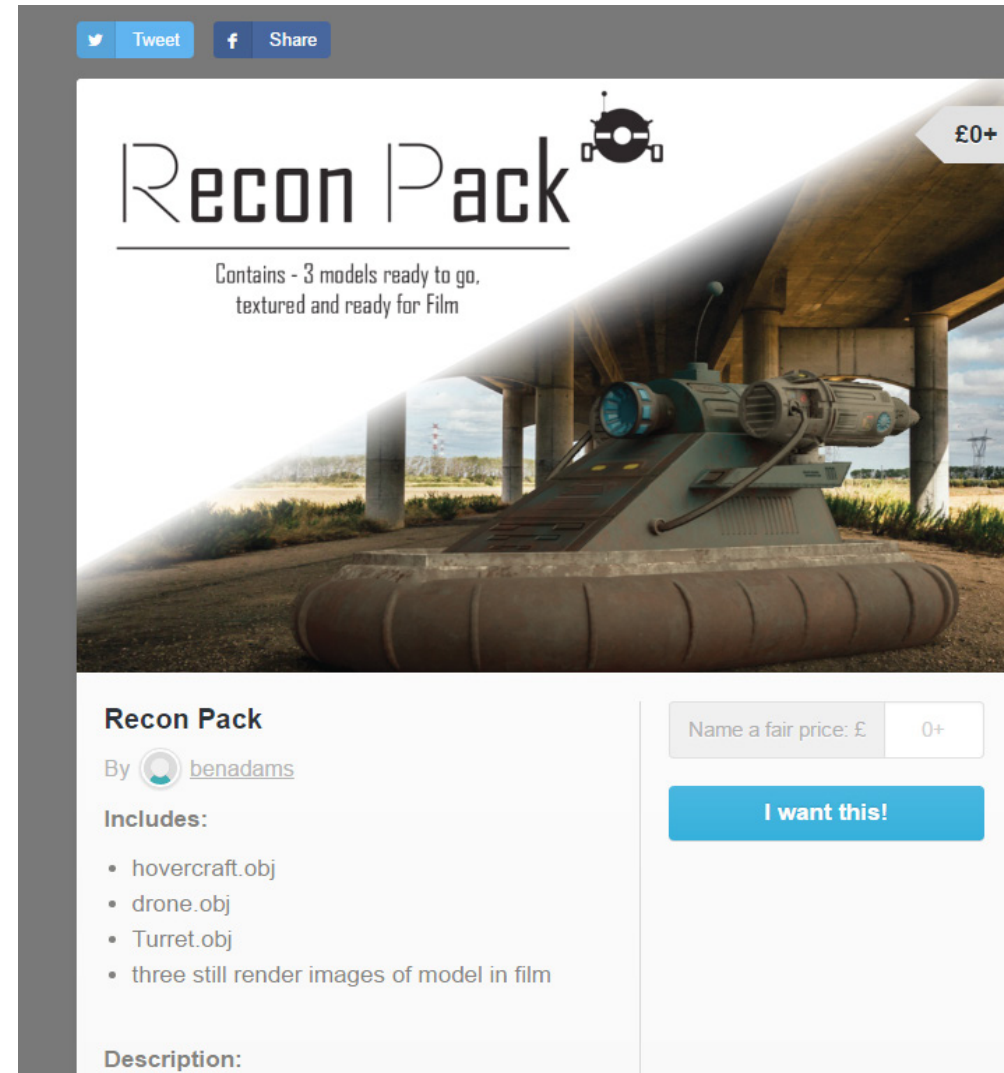
I fed in both my Art station and sketchfab work into creating this Gumroad pack. It has the ability to serve a function if people need models for a piece of work they are working on. I Was happy with how the Branding has come out as it is a simplistic yet effect style using mainly white and black.

During the creation of the pack itself I didn't come across any major issue that hindered me as I feel that I carried out adequate set up , As all the models were pre exported alongside all the mesh models having been found it was just a matter of drag and drop and then upload.

In relation back to learning outcome number 5 which is all about professional practices and taking ownership I personally learnt how to take a bit more pride with my work once it has been created, The Recon Pack is a prime example of how many pieces of work can be tidied up to create a finished professional pack.

**Link to Full Recon Pack:**

<https://gumroad.com/l/ZUQaV>



The screenshot shows a Gumroad product listing for 'Recon Pack'. At the top, there are social media sharing buttons for 'Tweet' and 'Share'. The product title 'Recon Pack' is displayed in a large, bold, sans-serif font, accompanied by a small icon of a drone. Below the title, a subtitle reads 'Contains - 3 models ready to go, textured and ready for Film'. The main image shows a futuristic, green and grey hovercraft-like vehicle with a turret, parked on a dirt path under a concrete overpass. A price tag in the top right corner indicates '£0+'. Below the image, the product name 'Recon Pack' is repeated, followed by the creator's name 'By benadams'. A list of included items is provided: 'hovercraft.obj', 'drone.obj', 'Turret.obj', and 'three still render images of model in film'. A 'Description:' section is also visible. On the right side, there is a price input field set to '£ 0+' and a prominent blue button labeled 'I want this!'.

