



Three Sides Project

Principles of 3D Computer Animation

Abby Turner 21019668

a.turner0920211@arts.ac.uk

Myblog: [Threesides – abbyturner43782 \(arts.ac.uk\)](#)



CONTENTS

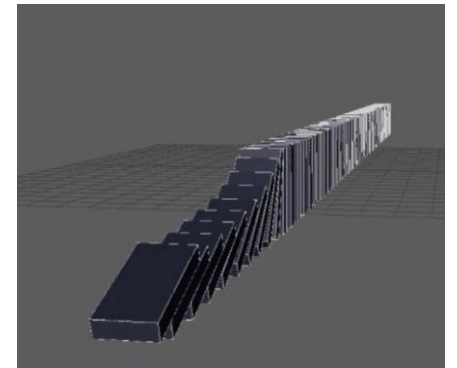
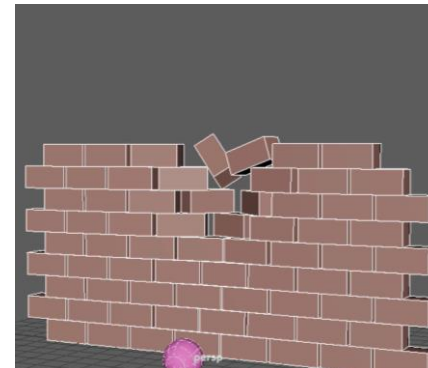
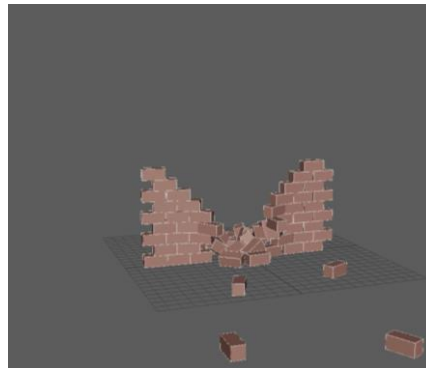
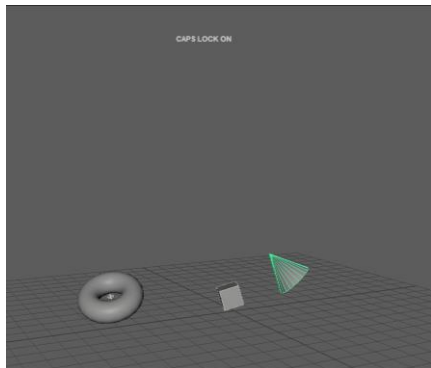
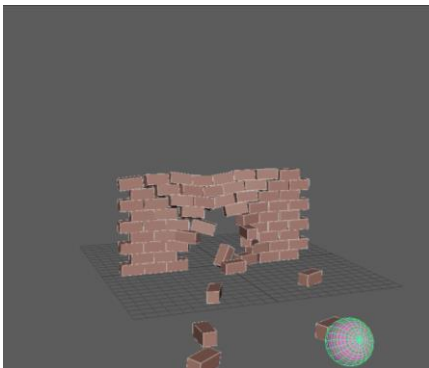
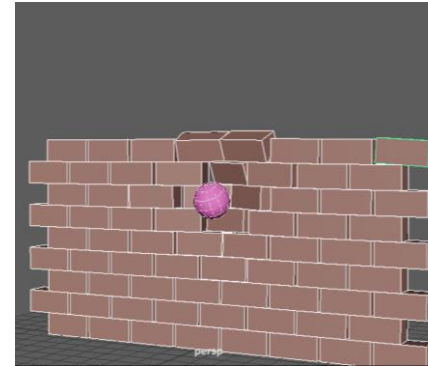
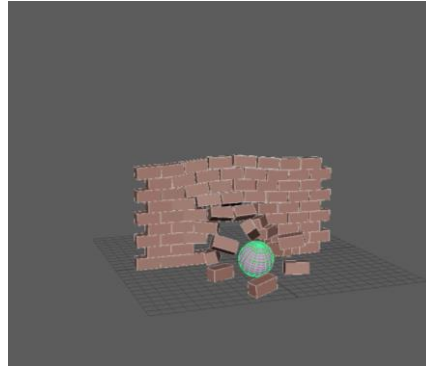
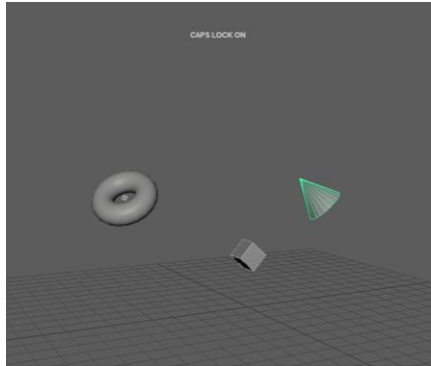
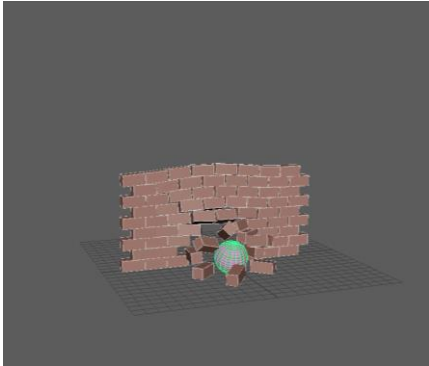
TOOLKITS.....	3
CONCEPT DEVELOPMENT.....	4
AESTHETIC AND NARRATIVE.....	5
PLANNING, BLOCKING, AND MODELING.....	6
STORYBOARD AND CAMERA SETUP.....	7
STORYBOARD DEVELOPMENT.....	8
MODEL, BASIC LIGHTING,& UV UNWRAPPING.....	9
RIGGED CHARACTERS.....	10
REFERENCING.....	11
ANIMATION.....	12
TEXTURING.....	13
IMPROVED LIGHTING.....	14
RENDERING.....	15
SOUND.....	16
RESULT	17
CRITICAL APRESIAL.....	18
BIBLIOGRAPHY	20



TOOLKITS

We have toolkit classes every Friday where we can choose what we want skills we want to improve. I chose to do the 3D classes to refresh some of my skills after the long summer break and to learn some new ones like simulations. Below are some screenshots from these classes.

Lighting experiment from my
lighting and rendering class



CONCEPT DEVELOPMENT

My idea for this project was inspired by the work I did for my summer project which was based on a guy dropping his pizza. I wanted a fun narrative and something that I would feel passionate about for months, so I made mine around a kebab shop. To start my research for this I visited my local kebab shop and took pictures of their interior and exterior décor. I was most inspired by the bright colours and lights that contrast the dingy stereotype that they have.

Summer project outcome

Photos I took of my local kebab shops



Sketches inspired by the photos I took of kebab shops

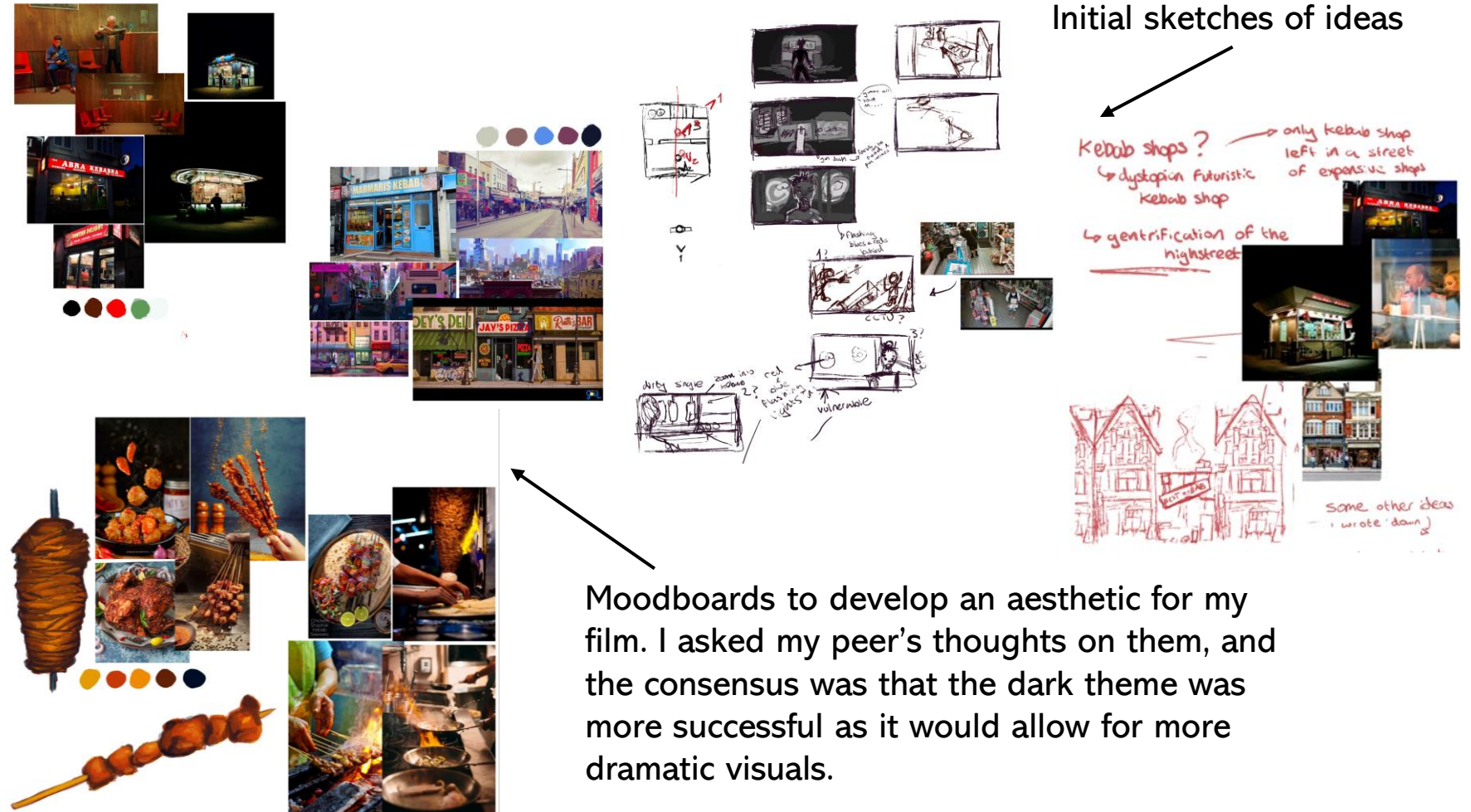




Screenshots from the first animatic

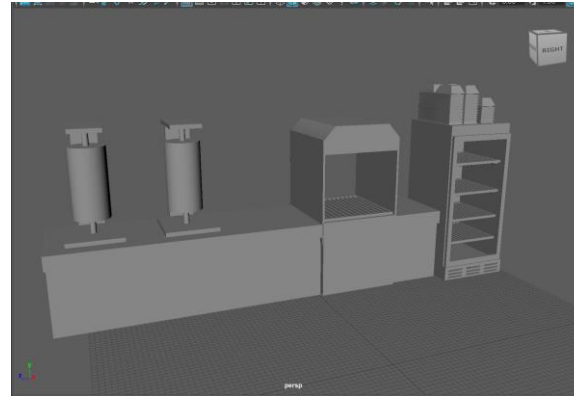
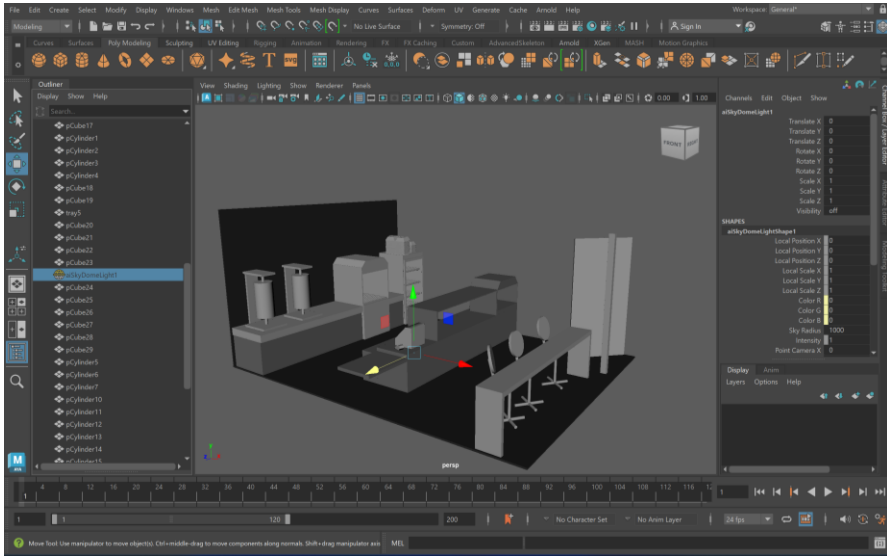
AESTHETIC AND NARRATIVE

Initial sketches of ideas



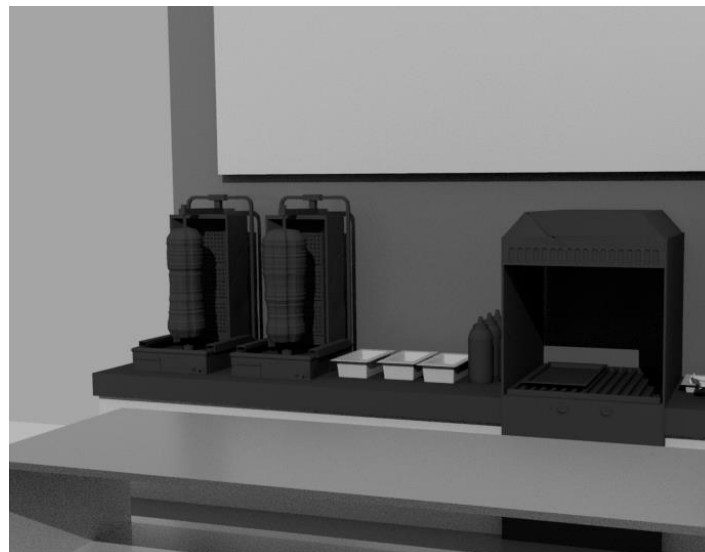
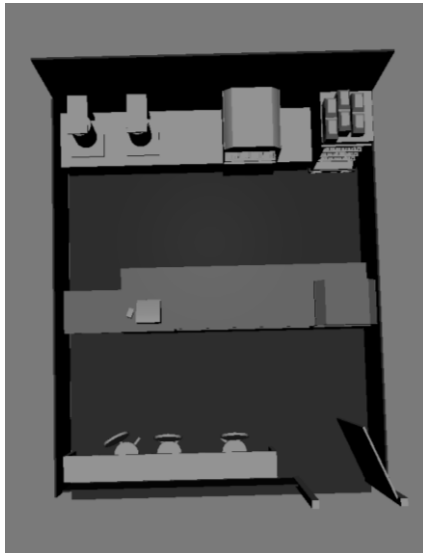
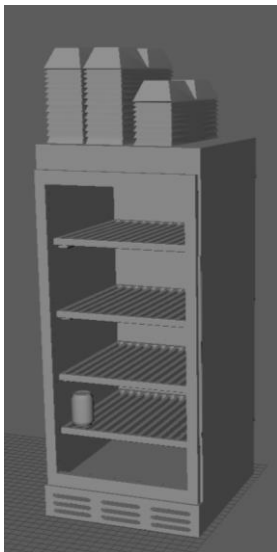
Moodboards to develop an aesthetic for my film. I asked my peer's thoughts on them, and the consensus was that the dark theme was more successful as it would allow for more dramatic visuals.

PLANNING, BLOCKING AND MODELING



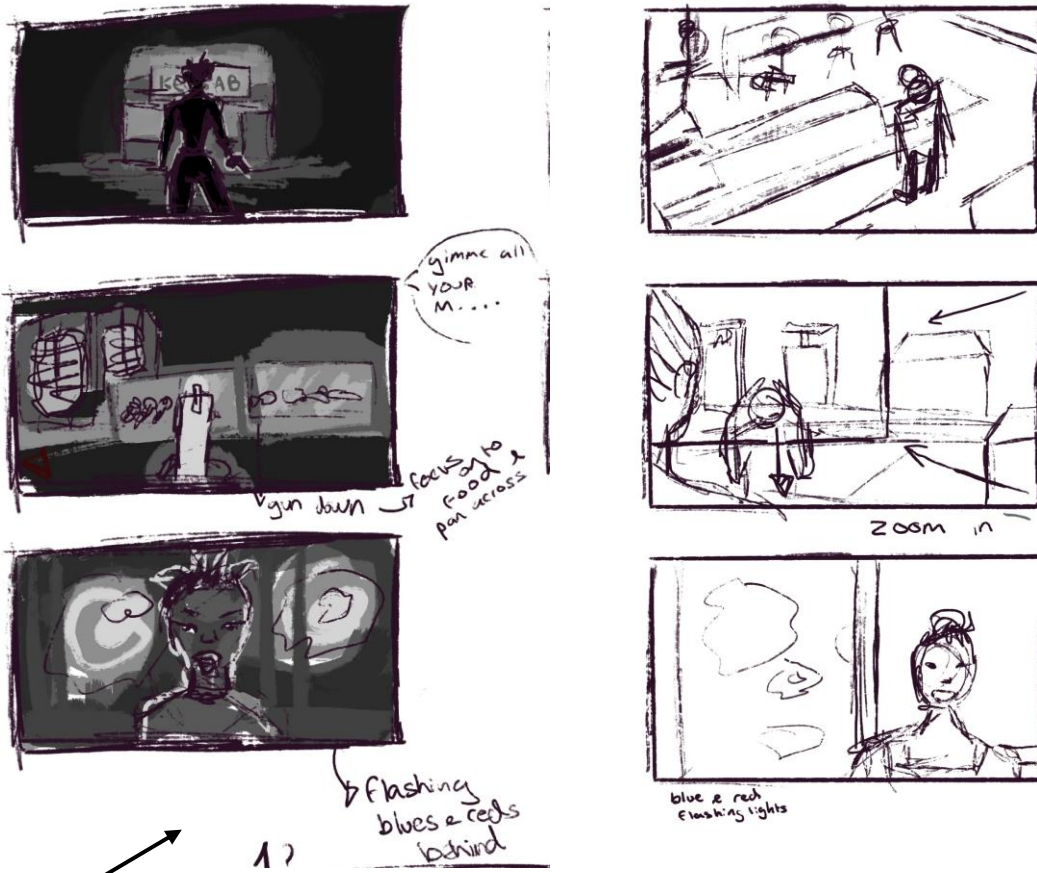
Asset list in Excel of everything I would need to model for a kebab shop

	A	B	C
1	Structural Assets		
2	Door way		
3	Door		
4	Walls (4)		
5	Floor		
6	Ceiling		
7			
8	Other Assets		
9	oven		
10	fridge		
11	takeaway boxes		
12	kebab		
13	kebab heater		
14	desk		
15	table		
16	chairs 3		
17	shish kebabs		
18	chicken		
19	chicken oven		
20	vegetables		
21	sauces		
22	metal trays		
23	tongs		
24	knife		
25	Till		
26	Card machine		
27	Gun		
28	rubish		
29	bin		
30	posters		
31			



Screenshots from my scene in various stages

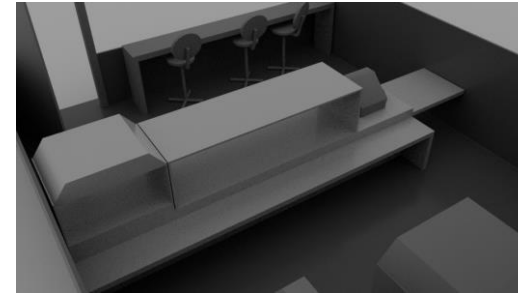
STORYBOARDING AND CAMERAS



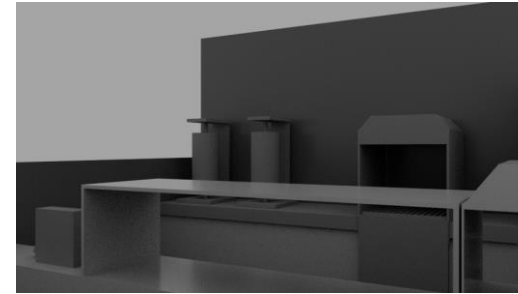
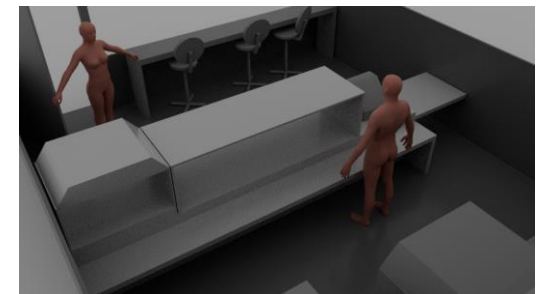
First storyboard

Development after advice from peers

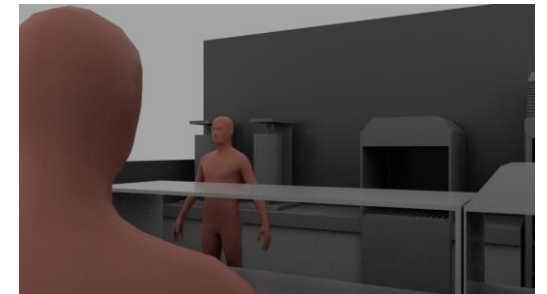
Camera set up in the scene



SHOT 1



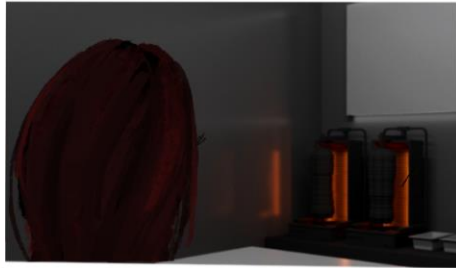
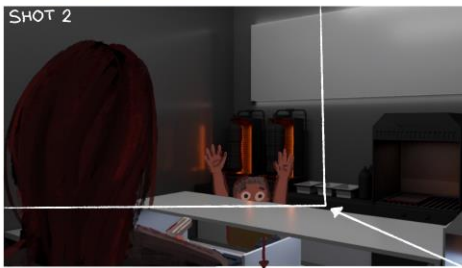
SHOT 2



SHOT 3



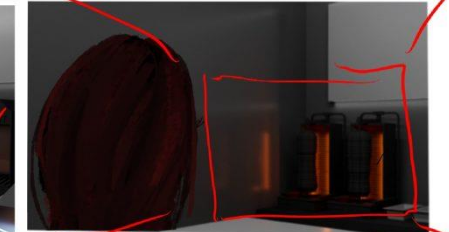
STORYBOARD DEVELOPMENT



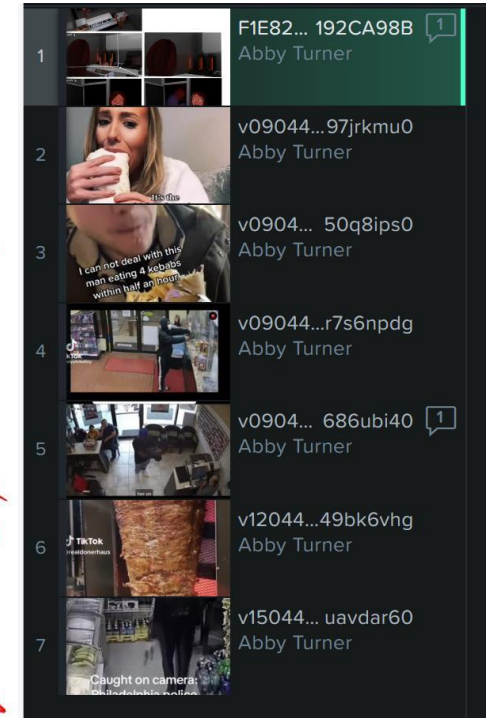
Police Sirens



Collection of
reference videos



Police Sirens



Critiques from George for my
storyboard that I took forward as
an updated storyboard.



SHOT 1



SHOT 2



SHOT 3

3 shots fully modelled
with lighting



COMPLETED MODEL, BASIC LIGHTING

Rendering of the shop at
different angles showcasing
the different types of lights I
added

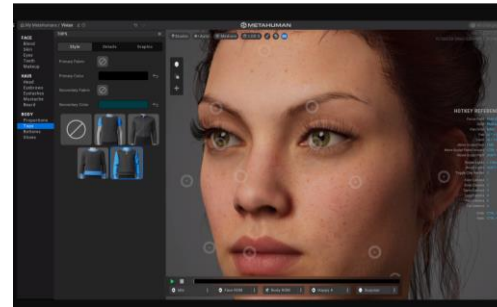
Police lights and free-asset
cars reflecting them



RIGGED CHARACTERS

We were advised to find a rigged character online. I looked and I couldn't find two characters that I liked and looked like they belonged in the same scene. I was told about two programs, Character Creator and MetaHuman) where you can create and customise your character that is pre-rigged. I chose my character creator models as they were more clothing options and had less of the uncanny valley effect than the models that I made in MetaHuman.

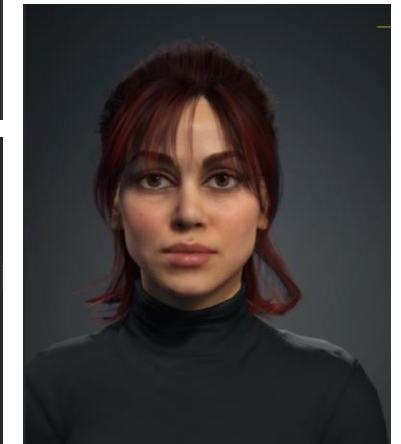
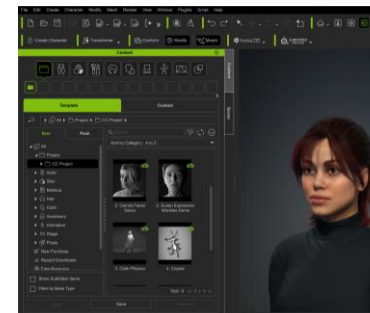
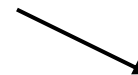
The main challenge I faced choosing this was that no one around me had ever exported and used these types of models before, especially the morph face rig. It took me a long time and a lot of YouTube tutorials to get the rig to work. However, I learned so much about how Maya works and rigging that I wouldn't have done if I had just chosen one online.



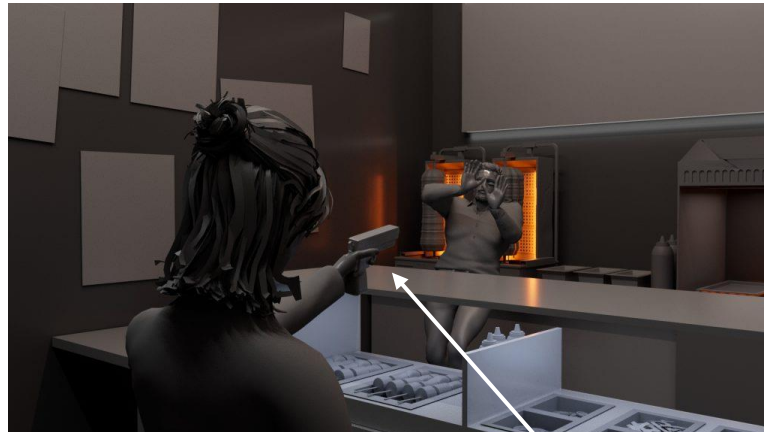
My MetaHuman Models



My Character Creator Models



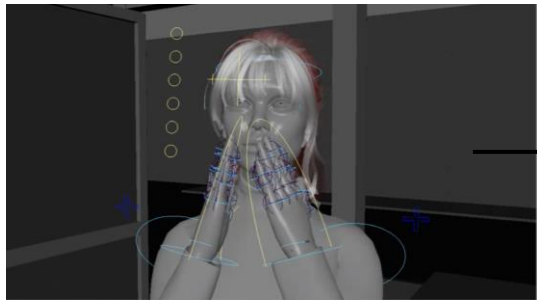
Kebab wrap parenting



Gun parenting

REFERENCING

This was the first time I've used referencing in Maya and it was so effective. I also parented the gun and wrap to my female character's hand. This technique was very successful for my character as it was keyable so she could smoothly let go of the wrap into her trousers. It was very enjoyable to learn and develop these processes through YouTube videos and my in-person workshops.

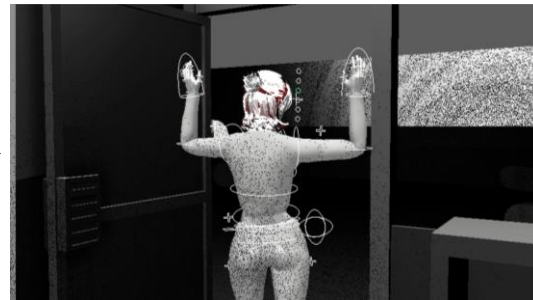
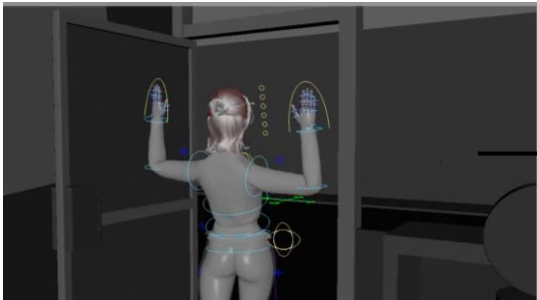


SHOT 3

Comparing stills from my blocking and final untextured Playblasts

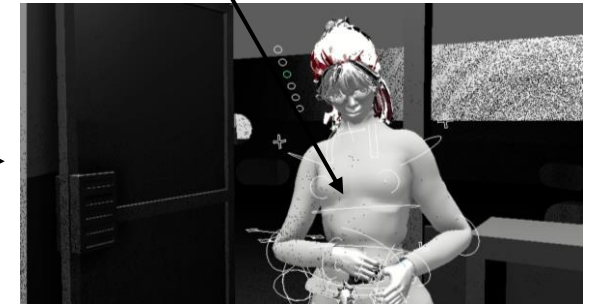
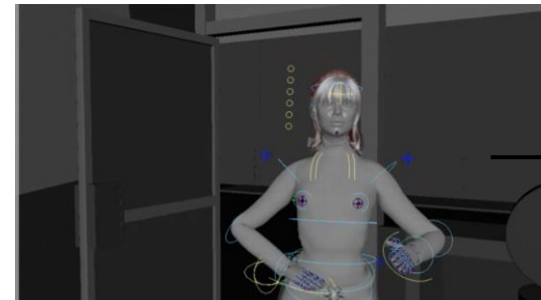
ANIMATION

Kebab shoved down her trousers is inspired by the diner scene in *Pulp Fiction* where they put their guns down their trousers before, they turn around and leave

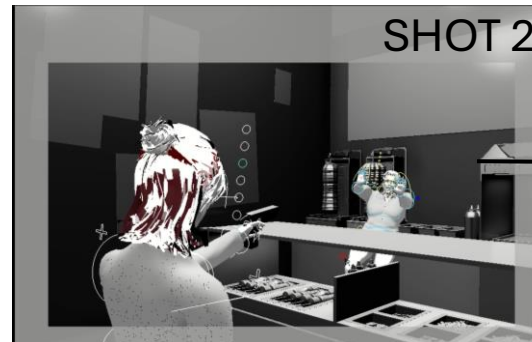


SHOT 3

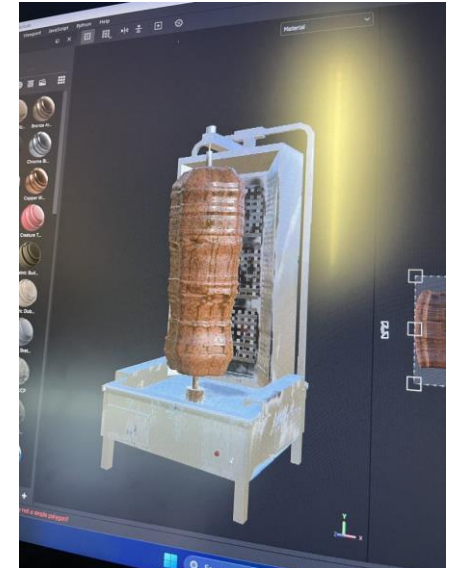
Playblast with George's critiques over



SHOT 3

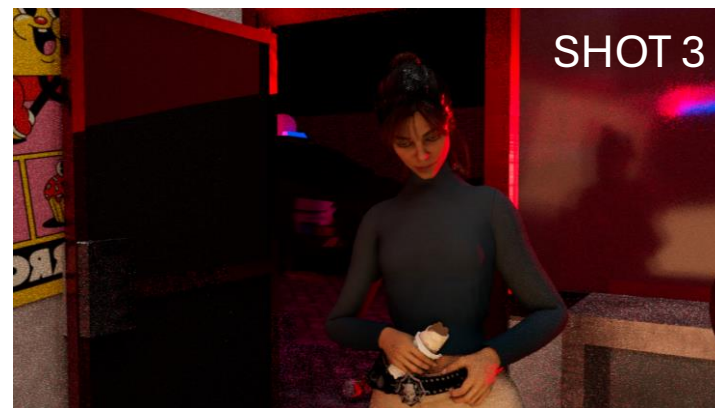


TEXTURING



I used Substance Painter while texturing for objects that are very visible in my shots like the kebab machine and counters. I think this worked successfully for this asset, but It would've been more efficient if I had only used it for close-up shots.

Picture from
substance
painter



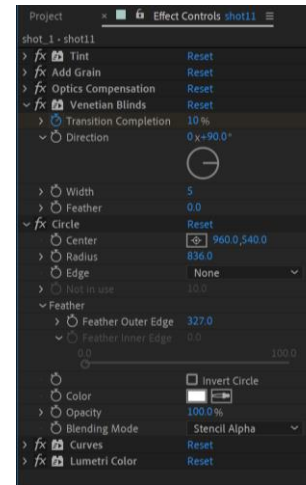
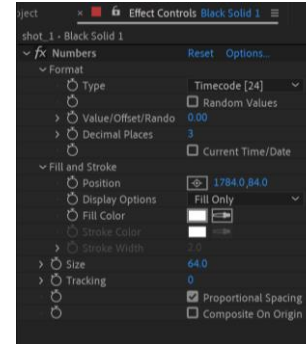
IMPROVED LIGHTING

I added more area lights to my characters as I thought the characters were too dark in the previous lighting. I also animated the police lights in the background and added directional lights to make the red and blue effects more dramatic. I did this after getting feedback from my classmates and lecturer that the police lights needed to be clearer especially since the scene is so short.

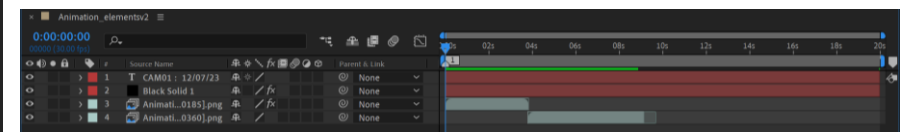
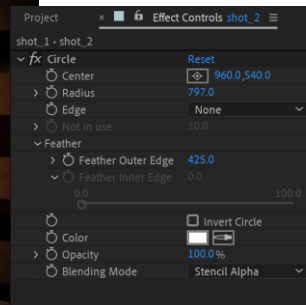
RENDERING AND EDITING

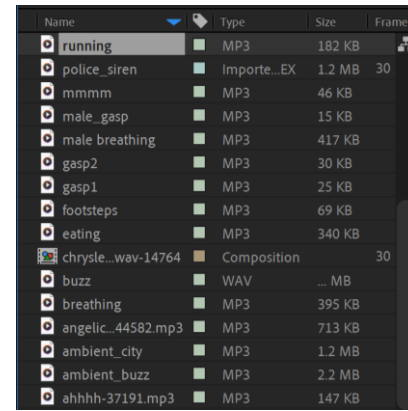
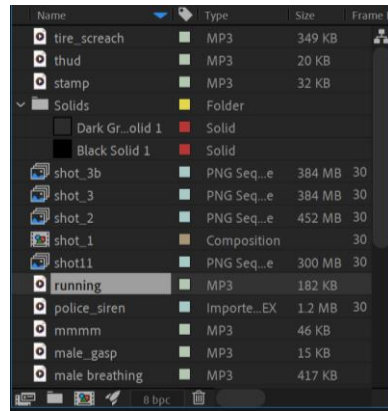
This was the first time I'd used the render farm, so I had some issues with texture file paths, I fixed it and took my PNG files into After Effects. I followed two YouTube tutorials for the CCTV camera effect. I think the most successful effect was the Venetian blinds that seem like the screen on a low-quality camera.

I used the circle effect to make a vignette on my shots to emphasise the action at the centre of the shots and to create more depth.



SHOT 1

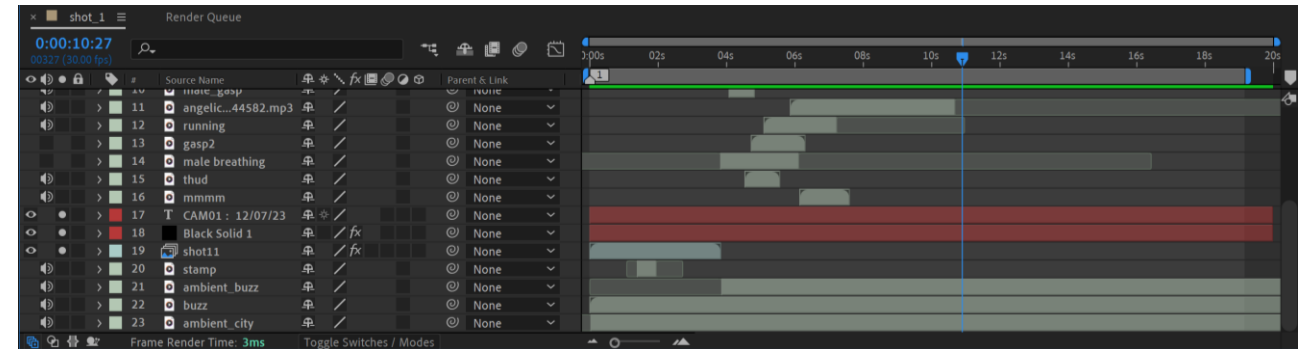




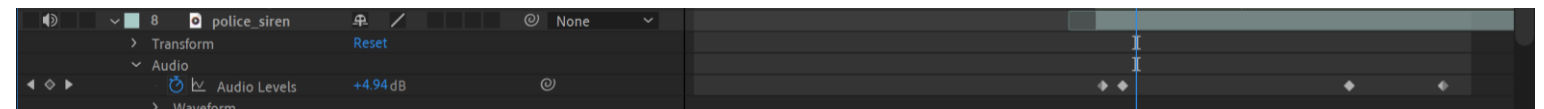
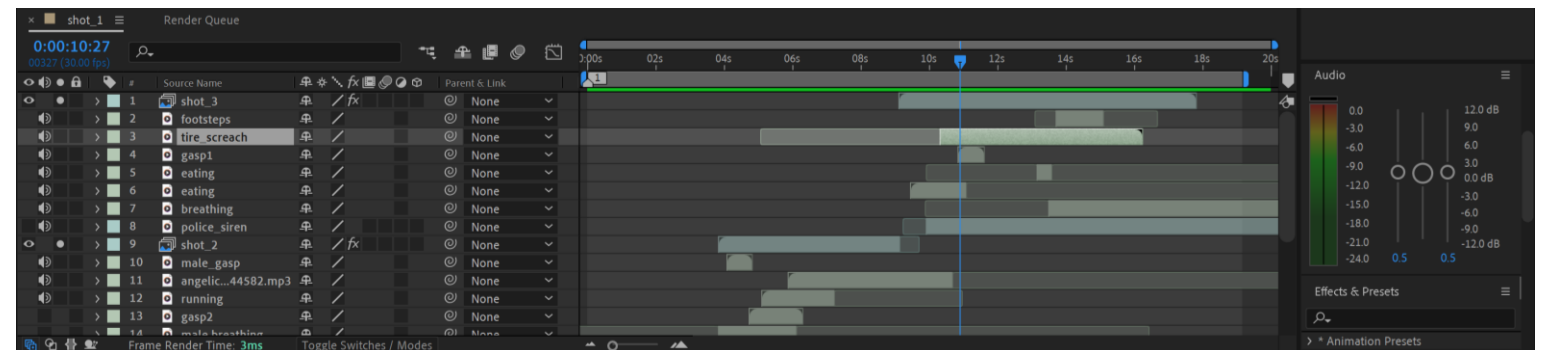
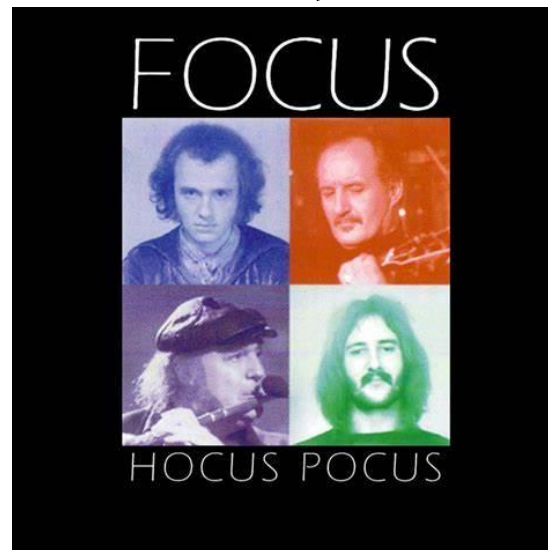
SOUND

List of sound effects used

Screenshots from my sound editing on After Effects



I was inspired by the film *Baby Driver* to add this song to my film as I thought the change in tempo and rhythm matched my movement perfectly.

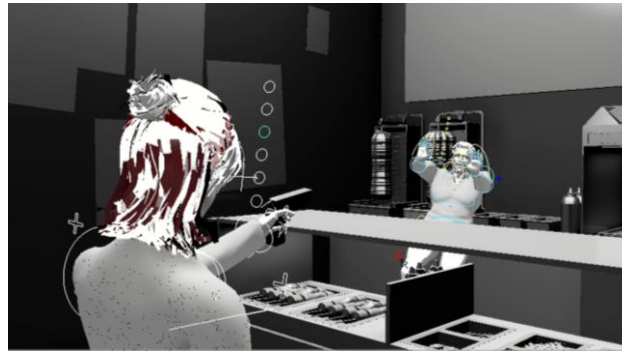
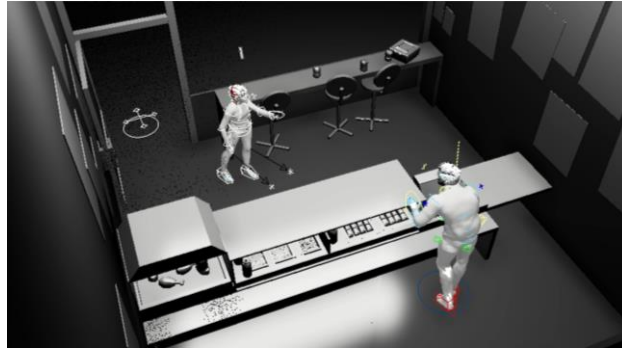


STORYBOARD

ANIMATING

LIGHTING & TEXTURING

EDITING





CRITICAL APPRAISAL 1/2

For the project, I was challenged to make a short film only containing three shots. My aim going into this was to create a film that I wanted to showcase in my portfolio, develop my skills, and understand the animation pipeline more. I also wanted to have a narrative that I would be interested in throughout the project, so I would enjoy the whole process.

I believe I was successful in creating a narrative that is a complete and interesting story in under 20 seconds. However, I would've liked to explore the narrative further and the motive behind my character's actions. I decided to make her appear crazier or drunk so the audience would be able to have an easy excuse for her actions and focus on the comedy in the film. I think having my character shoving the kebab wrap down her trousers was effective at adding more comedy to the film and at referencing other robbery films when they conceal their gun in their trousers. I studied the diner scene in *Pulp Fiction* specifically for animating this. I went into this project with the mindset of taking in everything that was taught in classes and to capitalised on the knowledge of my peers. This approach provided me with the opportunity to learn programs and techniques that aren't taught in class. This is shown in my Character Creator 4 work where I was recommended to try this program because I wanted to do more than find a free pre-rigged character online. Figuring out this program and models was one of my biggest successes in this project. The struggles with learning a new program that no one around me knew, and the subsequent achievement of getting them both to work in Maya, taught me to go further than the specification as it's my film and portfolio that I'm creating. I also applied this when editing my film. I found YouTube tutorials on creating a CCTV effect and combined elements of these to create my desired outcome. This successfully conveyed to the audience that it was a CCTV camera while also allowing them an introduction to the setting of the film.

CRITICAL APPRAISAL 2/2

I think my areas of improvement for this project would be in my expectations for timing. It would've improved my animation if I had practiced with my models and done some run cycles to get used to the controls. Towards the end of animating, I learned so much that I wished I had known in the blocking stages that would've made my characters have more personality. I also wanted to do hair sims and other simulations in this project, especially after learning them in my toolkit classes, but it wasn't feasible in this timeframe. I think this accompanies my last point in that I need to manage expectations for myself as this is my first 3D animated short film and if I were to go back, I would've kept that in mind when planning for this project. I think I need more practice in sound editing as I found it quite difficult to recognise the sounds that would be heard in this scene and ended up putting music in the background. I think it turned out to be effective and highlighted the action in the scene. If I were to go back, I would've liked to record some sounds to add as it would've been easier to sync up footsteps than editing footstep sound effects to fit my animation. I also made some simple mistakes that set back my project like when rendering I didn't know I had to repath files. However, whenever I hit these hurdles I talked with my peers and lecturers to learn what I had to do to fix them. These mistakes and areas of improvement will help my future projects be more efficient as I know what areas I need to focus on when planning.

My main goal for this project was to make a film that I would want for my portfolio, and I have achieved this. I created a film that I relate to and represent the type of fun projects that I want to make. I think a natural progression from this project would be to become more familiar with the animation pipeline so I can confidently specialise. One of the major limitations of this project was the three shots, this was an interesting challenge, but I would like to experiment more with camera shots in my future work, as I think it would allow more connection between the audience and characters. In this project, I improved many skills and learned a lot of new ones. In conclusion, I think my overall performance in this unit was successful and I achieved all the aims I set out for myself.



BIBLIOGRAPHY

REFERENCES:

Konstantin Mishukov (2016). *Pulp Fiction - Grill Bar Robbery Scene*. YouTube. Available at: <https://www.youtube.com/watch?v=1LhAUE-QG-M>.
Baby Driver. (2017)
www.youtube.com. (n.d.). *Focus - Hocus Pocus ('BABY DRIVER' Movie Scene)*. [online] Available at: <https://www.youtube.com/watch?v=7v6NDhHlFOA>.
Pulp Fiction. (1994)
www.tiktok.com. (n.d.). *TikTok - Make Your Day*. [online] Available at: <https://vm.tiktok.com/ZGerF4f2p/>
www.tiktok.com. (n.d.). *TikTok - Make Your Day*. [online] Available at: <https://vm.tiktok.com/ZGerFVNwG/>
www.tiktok.com. (n.d.). *TikTok - Make Your Day*. [online] Available at: <https://vm.tiktok.com/ZGerF4f2p/>
www.tiktok.com. (n.d.). *TikTok - Make Your Day*. [online] Available at: <https://vm.tiktok.com/ZGerFDh7c/>
www.tiktok.com. (n.d.). *TikTok - Make Your Day*. [online] Available at: <https://vm.tiktok.com/ZGerFV7Pm/>

ASSET:

CGTrader. (n.d.). *NYPD CVPI / 3D model*. [online] Available at: <https://www.cgtrader.com/free-3d-models/car/car/nypd-cvpi>

YOUTUBE TUTORIALS:

www.youtube.com. (n.d.). *Character Creator 4 - Tutorials - YouTube*. [online] Available at: <https://www.youtube.com/playlist?list=PLNV5zSFadPdkRZZ7WlktjGd3HD1q8wgE>
www.youtube.com. (n.d.). *Character Creator 4 to Maya 2022 with Maya Human IK Control Rig - Full Tutorial*. [online] Available at:
<https://www.youtube.com/watch?v=8higexegudk>
www.youtube.com. (n.d.). *How To Do The CCTV Camera Effect - After Effects Tutorial*. [online] Available at: <https://www.youtube.com/watch?v=GAb8ME9k98M>
www.youtube.com. (n.d.). *Create SECURITY CAMERA / CCTV Effect in After Effects*. [online] Available at: <https://www.youtube.com/watch?v=gva0wflg6x8>

SOUND EFFECTS:

www.pixabay.com. (n.d.). *Chase Running*. Available at <https://pixabay.com/sound-effects/chase-running-9109/>
www.pixabay.com. (n.d.). *Ani Big Pipe Hit*. Available at <https://pixabay.com/sound-effects/ani-big-pipe-hit-6814/>
Focus (2014). *Hocus Pocus*.
www.tiktok.com. (n.d.). *TikTok - Police Siren Sound Effect*. [online] Available at: <https://vm.tiktok.com/ZGerFMNcK/>