

UI DESIGN

A PROJECT BY JOHN OVUSON

INSPIRATION



AVENGERS: ENDGAME



AYO TECHNOLOGY – 50 CENT FEAT. JUSTIN TIMBERLAKE

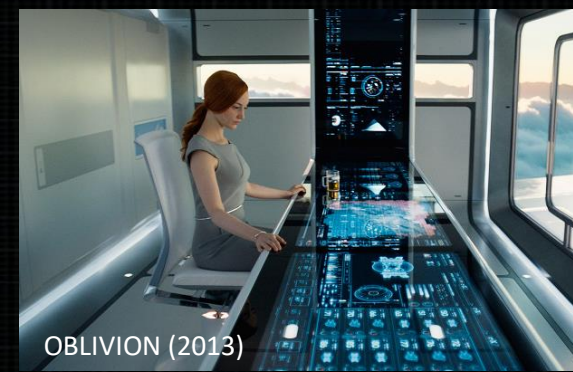
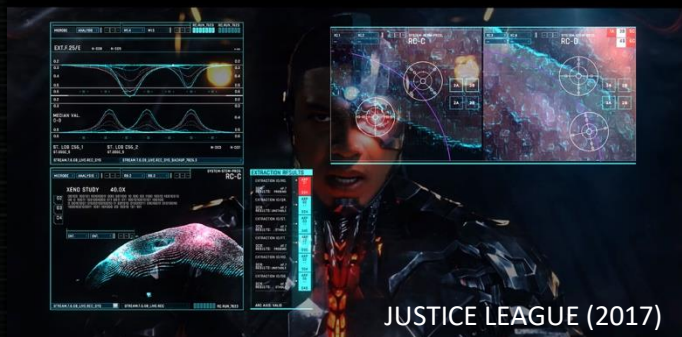
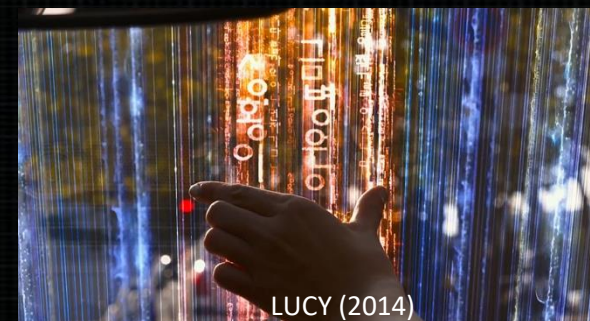
Following the brief, I decided to look back at different UI's I found particularly interesting, as well as their use.

I revisited a scene in a recent feature film – Avengers (EndGame); in which UI was heavily used.

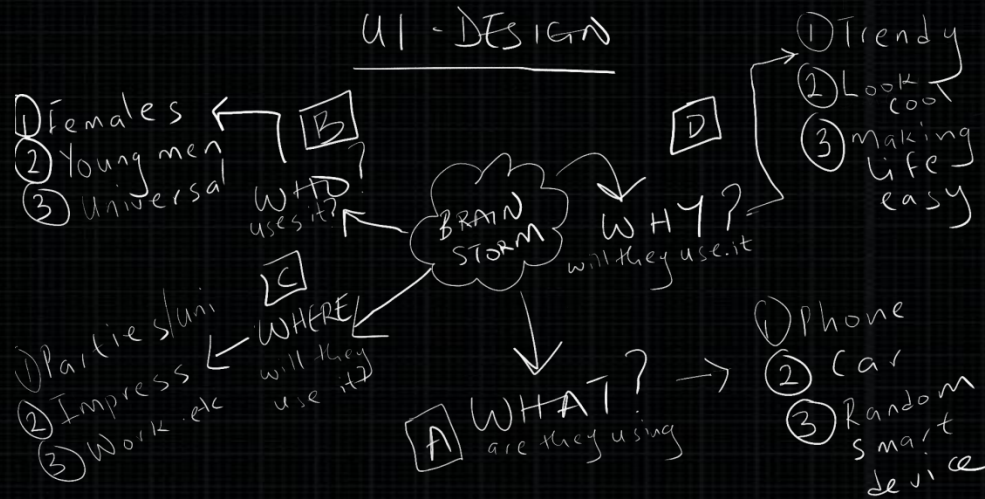
UI design was also heavily used in all of Marvel's Iron Man movies... and the believability of those scenes was all down to the acting; as well as the graphics and composition.

Another shot worthy of looking at is a music video – Ayo Technology by 50 Cent (feat. Justin Timberlake). This video was made in 2009 (10 years prior to this documentation) and one can clearly see the tracking markers on the talent's fingers. This shows the extent of development in VFX, as well as the extensive use of the art.

OTHER UI DESIGN SCENES



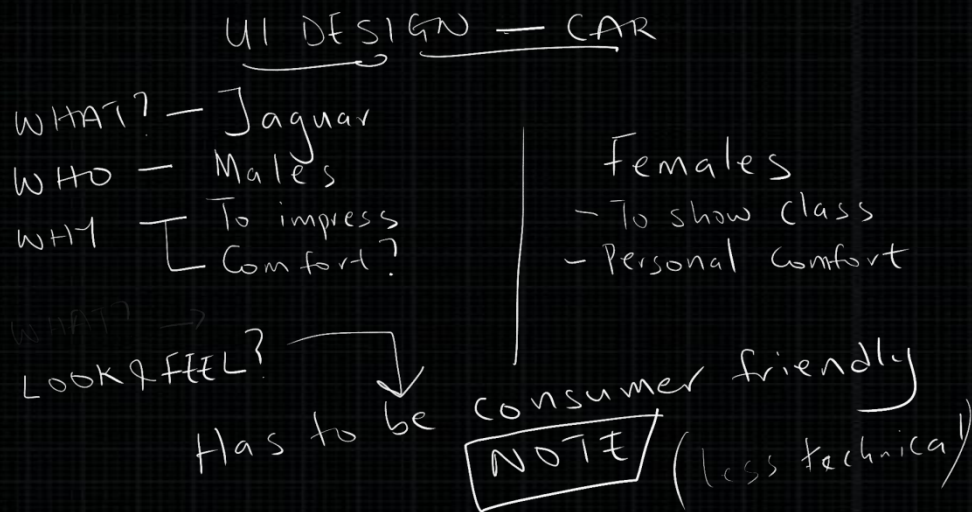
BRAIN STORMING



Having gone through an in-depth research regarding the kind of interface I intend designing, I put into consideration, things like WHO will be using it, WHERE they'll get to use it and most importantly, WHY they will use it.

I asked friends about devices they'd like to improve (and why). A response I got from a friend was quite striking – **A car that can do a "self MOT"**. I immediately realised that most contemporary cars already perform some sort of internal checks. However, none are quite detailed.

Once I figured out WHAT I wanted to do, working out the rest wasn't a problem. I went further to read blogs on the kind of tests a car goes through during an MOT; whilst looking at the most popular social media apps, which would be integrated into the design.



UI COMPONENTS

APPLICATIONS

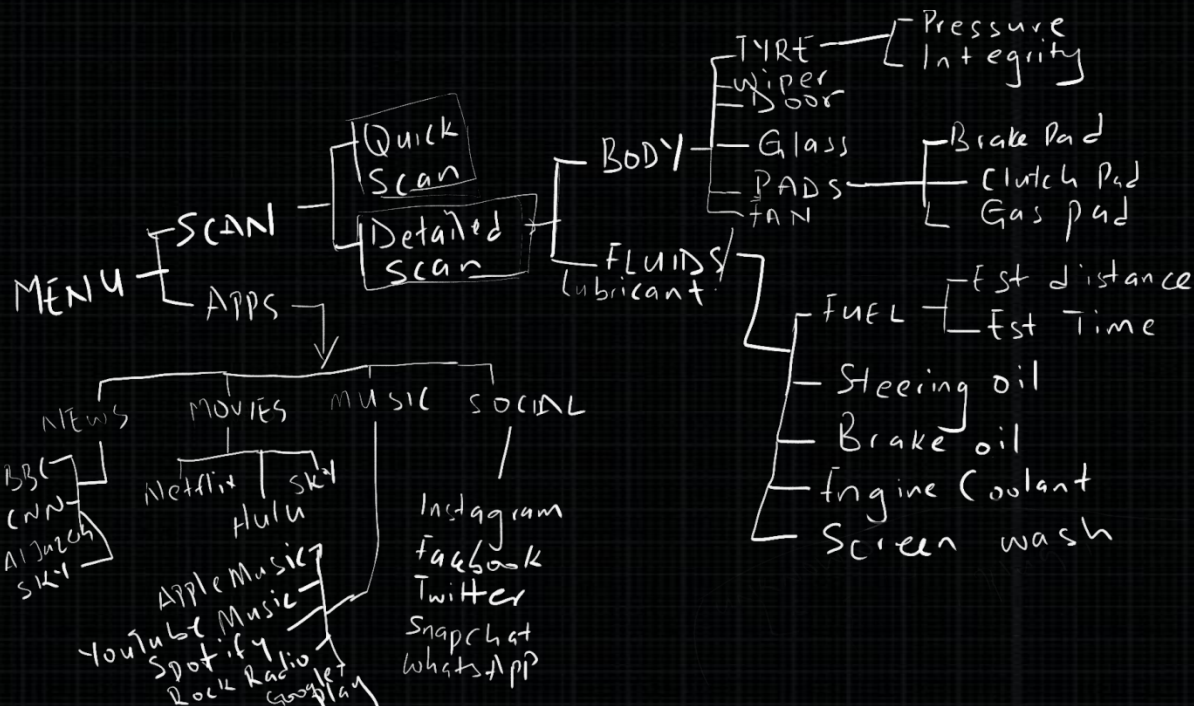
Social

News facebook
radio twitter Netflix
HULU
Youtube
Google play Music
Rock Radio
skymovies
Radio
CNN BBC
sky

Instagram
Snapchat
TikTok
WhatsApp

CAR

Fuel Alternator Coolant
steering oil Battery
Tyres, Wiper Brake pad
Airbag, Headlamps, wheel
brake light pointers, seatbelt
Shock absorber, clutch pad
gear box, Brain box plugs
Fuel pump Screen wash
handbrake



Sequel to gathering the MOT details as well as the popular social media Apps, I tried to categorise them into subsections which would feed into the User Interface.

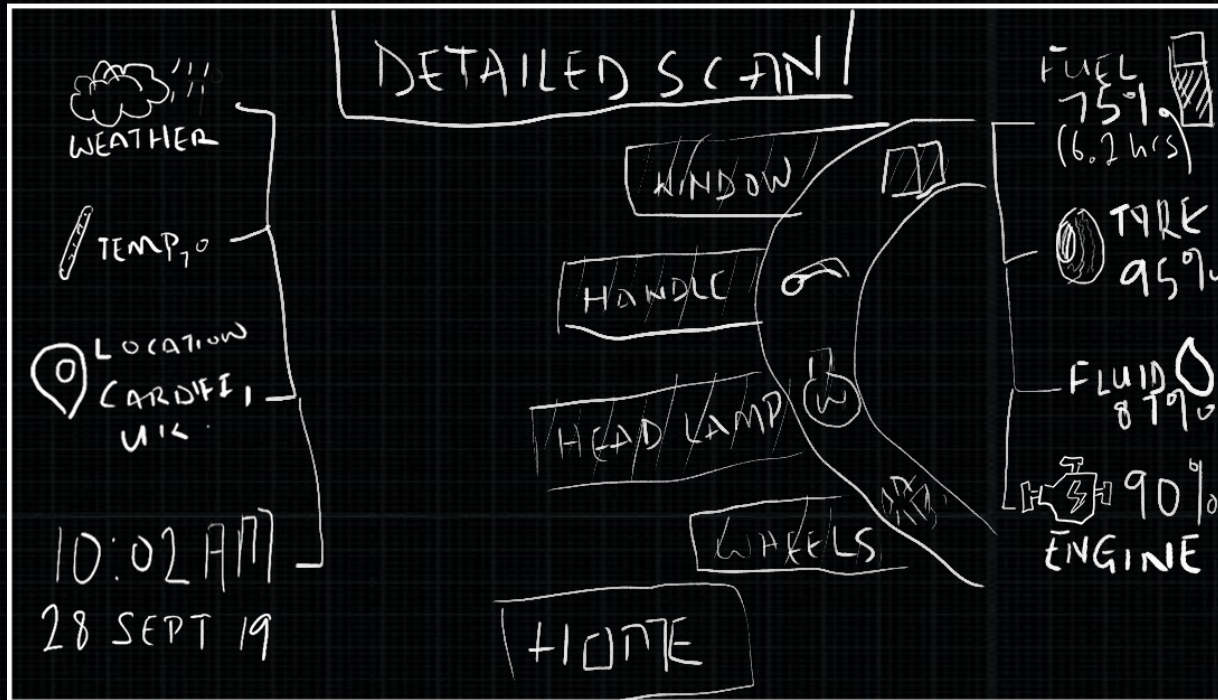
This would enable me create the interface such that during filming, the talent will already have a mental image of what he/she is scrolling through.

However, it is worthy of note that this is a 10-second project that's supposed to last for (less than) 3 weeks in production. and to that effect, I decided to not make it look too detailed. Limiting my exploration will give me more time to fine-tune the bits, as well as giving me less likely things to re-edit.

Considering the potential user of the UI, the interface should be user friendly. Font style, letter case, font size and colours will be looked into.

At this point, I had already decided the kind of car I'd be filming – Jaguar. (One with a really fancy interior).

INTERFACE SKETCH



A ROUGH SKETCH OF MY UI HOLOGRAM.

Having taking a quick glance of the official [Jaguar motors page](#), I noticed the font style on their webpage was 'Arial' and the text happened to be slightly smaller than normal.

Secondly, although Jaguar is a luxury car, the icon on the cars is the face of an angry jaguar. So, I decided to make use of a few sharp edges during the design process.

Thirdly, I tried to make the interface as comprehensive as possible. This involves using the simplest terminologies and adopting familiar icons (found in regular Apps).

Finally, the details about the scan will be measured in percentages. This is because the percentage is one of the most common units of measurement; used by all kinds of people regardless of educational background

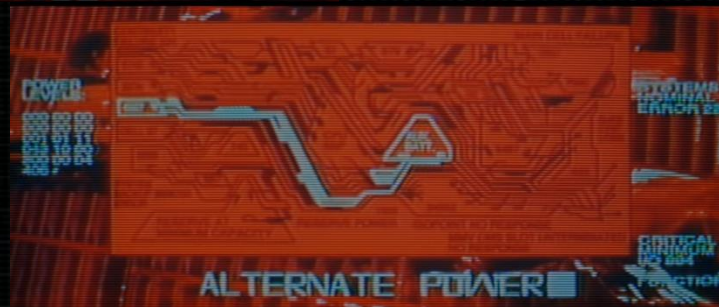
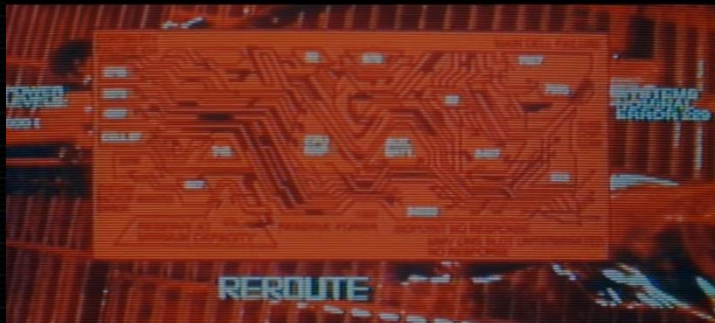
***ARIAL** font.

***LESS COMPLEX**
terminologies.

BULL'S EYE



JUMANJI (2017)



TERMINATOR 2: JUDGEMENT DAY (1991)

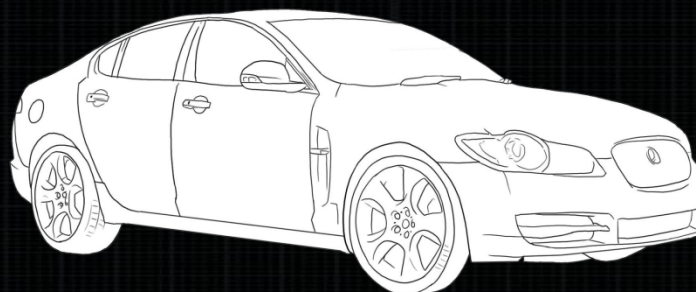
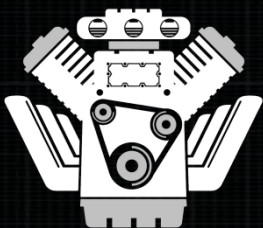
Due to the fact that the final render is expected to be about 10 seconds long, I decided to scrap out the (social media) applications in my design; so as to accommodate the important part of the piece – The car scan.

My design was heavily influenced by interface scene in JUMANJI: Welcome to the Jungle (2017); as well as the interaction in Terminator 2: Judgement Day

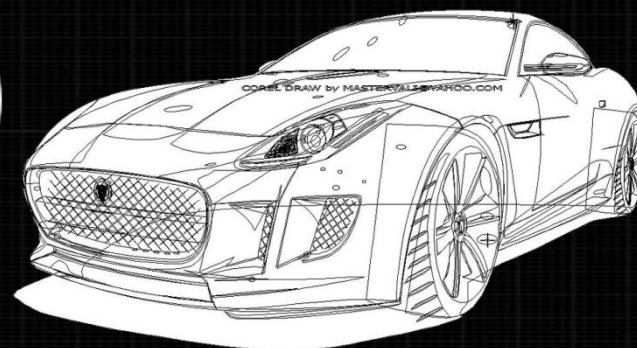
Although, Jumanji is based on a century old game, the scene was still crafted such that the audience could take a quick look at the interface and comprehend every detail in it.

In contrast, the Terminator is a machine from the future; however, the UI was also designed in a simplified way – ensuring the audience can comprehend in 5 seconds.

IMAGE REFERENCE



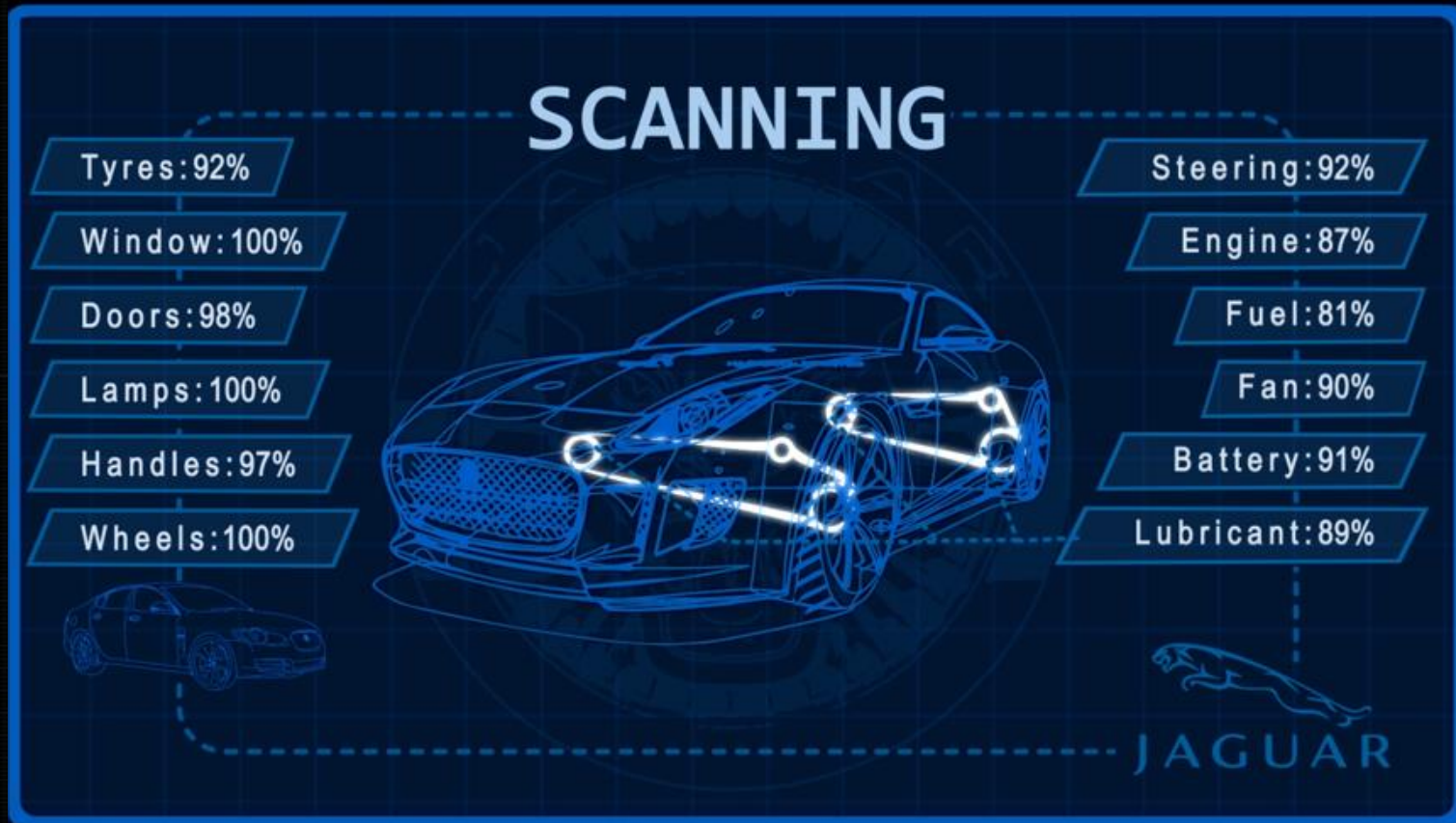
JAGUAR



It is pertinent to note that most images were gotten online and retraced using Adobe's illustrator.

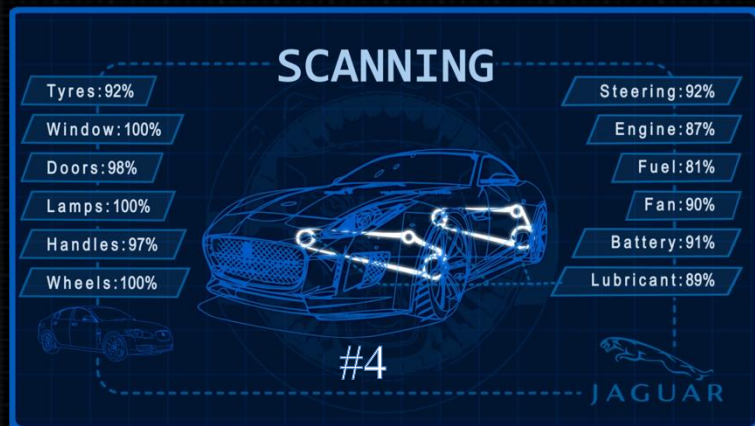
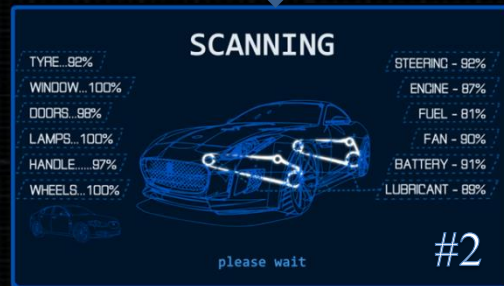
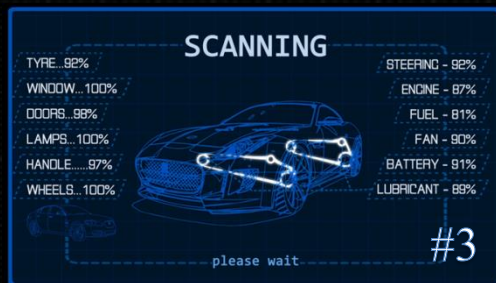
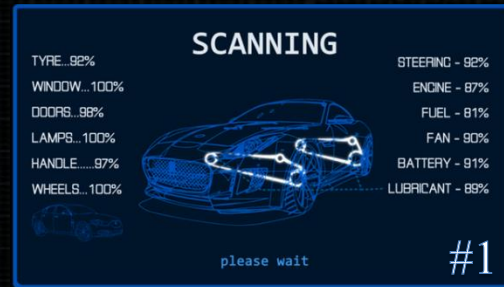
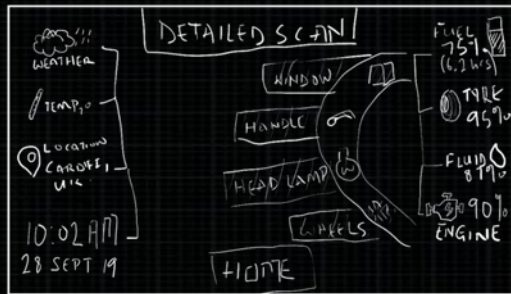
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FINAL DESIGN



THE FINAL PIECE: A fine blend of the (look of) Jumanji and the animation from Terminator II.

MY UI'S EVOLUTION



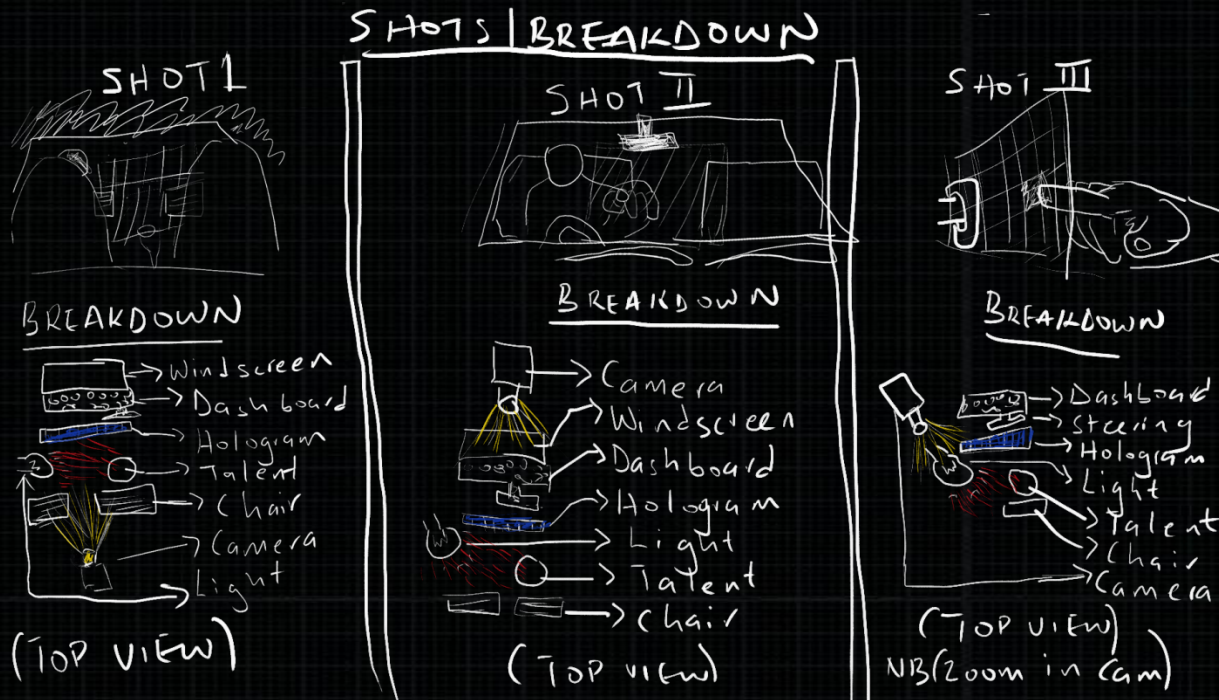
#1. Having begun with the traditional look of the UI in Jumanji (*compare page 7*). I couldn't help but notice how dull it looked. So I decided to add some animations to show the user that something is going on (in the background).

#2. After adding loads of animation; using dotted lines as a boundary box, it still ended up looking plain. So I revisited random movie scenes with UI (*see page 2*) and discovered the background tend to have a sort of checkboard/graph background.

#3. Having added the graph looking background, I realised the Jaguar logo wasn't placed within the UI (and not everyone would recognise the car icon). This led me to using both icons for Jaguar and it made it look even better.

#4. THE FINAL PIECE.

SHOTS PLANNING



At this point, I had made sketches of how the scene will look viz-a-viz the important details like angle of light and camera position.

In a bid to ensure I don't run into complications during post production, I decided to adopt an 'artificial light' when shooting, which will illuminate the scene as well as the talent. This would save me the stress of creating light to bounce off the talent.

I filmed the scene using the 'Sony z150' camera and I used a 'Rotolight Neo Single LED' light (with a blue gel) to illuminate the scene.

I decided to go with a blue gel because the lights in the interior of the car (I'd be filming) are mainly blue. The car also came with a mild neon light and so, I decided to match the light.



SONY Z150

CAR (Engine turned off)



Rotolight Neo Single LED

PLATES



#1. CAR WHILST ENGINE IS TURNED OFF. Sequel to the pre-production plans, it is worthy of note that timing was key to pulling it off. I took note of how long it takes for the car's dashboard to boot and planned my artificial light to gradually illuminate the scene.



#2. CAR WHILST ENGINE IS STARTING UP. The scene is slowly lit as we can see the neon light gradually reflecting on the talent's arm. I made sure that they (the car dashboard and the external light) both came on together.



#3. CAR WHEN ENGINE IS ON. The scene is fully lit as we can see the artificial light bouncing off the talent. At this point, the UI hologram is supposed to be visible.

The illuminated light and the default light on the dashboard created a colour/luminance contrast. This came as a bonus because it gave me extra tracking points.

SHOTS RE-PLANNING



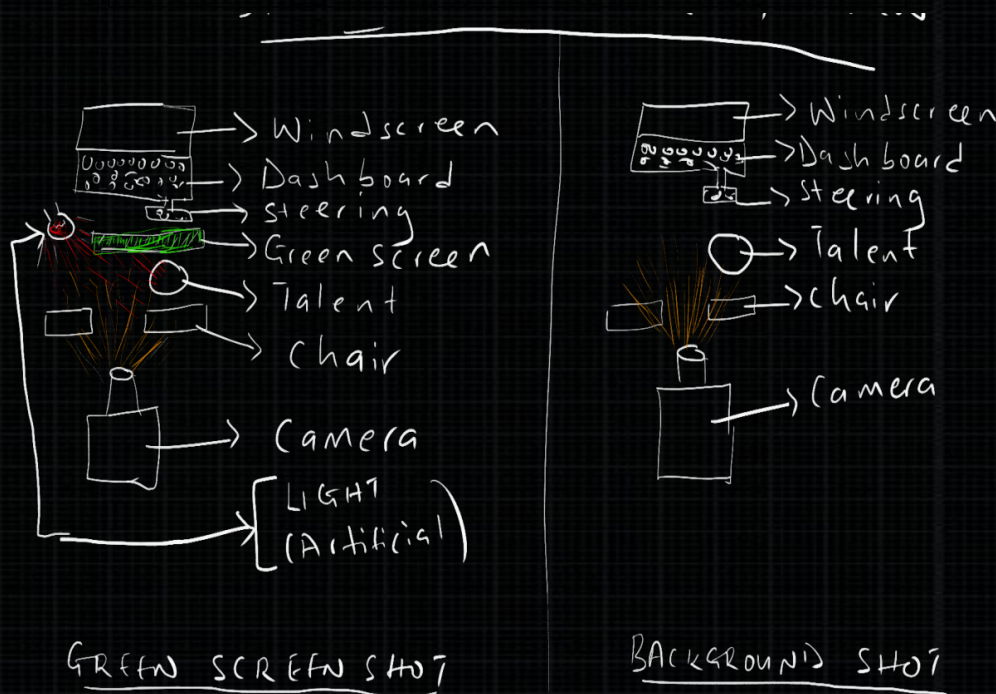
(1) Scene shot in black room/green screen



(2) GRAPHICS added into the scene



(3) BACKGROUND added into the scene



My original plan was to film with a high shutter speed and add motion blur after doing the roto.

However, I came across the making of the first instalment of IRON MAN movie and I discovered that the scene was made up of three (3) different plates (with the scene obviously tracked):

- (i) The actual shot in a black room/green screen room.
- (ii) A 3-dimentional (UI design) graphics was added to it.
- (iii) A background was placed in.

Following this discovery, I decided to re-plan and re-shoot my scenes. This time, I adopted a '**WESTCOTT Illuminator background**' which I will key out during post production.

The advantage of doing this is that I get to allow my subject interact with the hologram as much as is needed without having to do numerous roto-ing.

COMPOSITING: TRACKING

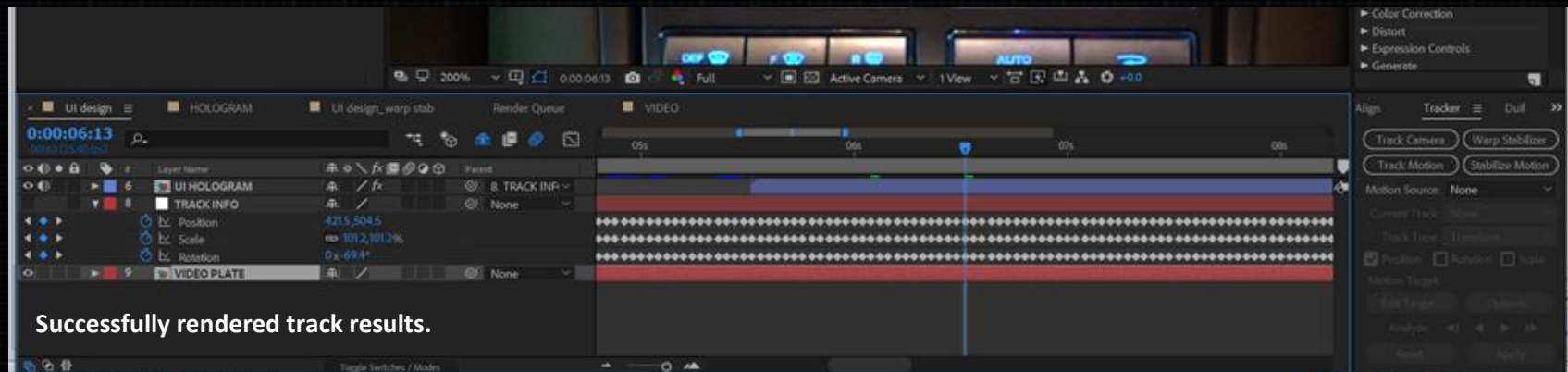


In a bid to make my piece as realistic as possible, I ensured I took the compositing very seriously.

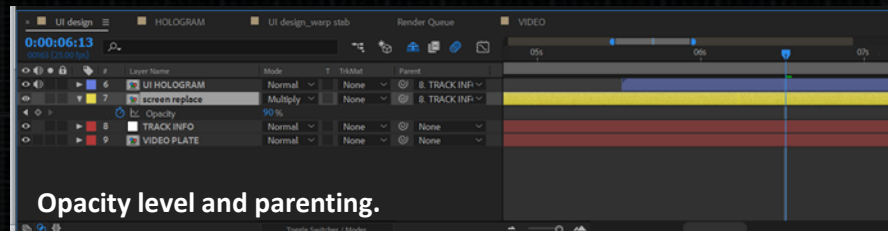
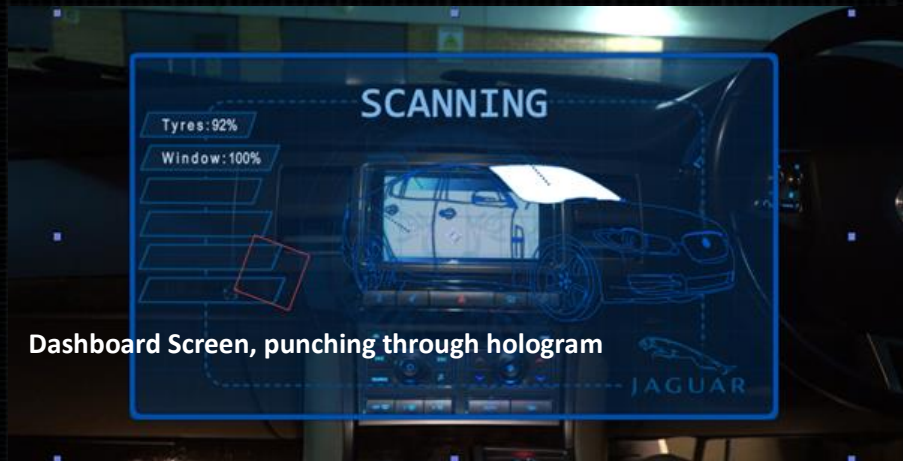
The first and most glaring problem was the fact that the camera was shaking. I placed the camera at the back seat; and I did not realise that as soon as the engine comes on, the camera will begin to shake. However, to fix that, I had to track the movement. Thankfully, there were a number of things to track within the car.

The car had its own individual lights and the artificial light I had boosted the contrast.

The tracking points will be used as parents to any added layer.



COMPOSITING: SCREEN REPLACEMENT

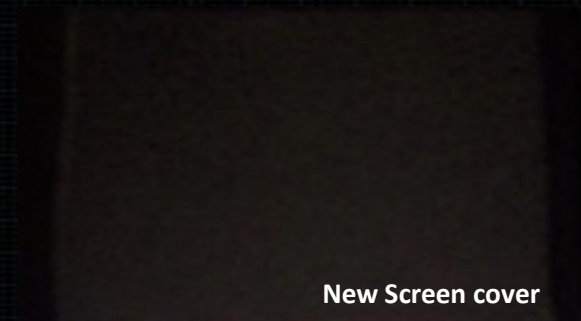


SCREEN REPLACEMENT.

Another glaring problem came in the form of the car's screen; illuminating light through the hologram.

To fix this, I used the clone stamp in photoshop to create a cover; and I used the multiply blending mode and reduced the opacity to make it partly transparent.

Having done this and positioned it properly in the first frame, I made it a child of the rendered track points.



COMPOSITING: BLENDING



FIG 1: Hologram after screen replacement



FIG 2: Hologram + CC lens effect



FIG 3: Hologram + CC lens effect + Add

My first effort to blend the hologram to the scene was to add a CC Lens effect. This curved the edges and twisted the hologram in a convex shape; giving it the ideal look of a monitor screen.

Despite the fact that the hologram was made against a transparent background, I could still see some black edges around the hologram when it was added to the scene.

To get rid of the black areas, I blended the hologram to the scene using the 'Add' blending mode. I also turned up the brightness to create the impression that the hologram is the source of the light hitting the talent and went further by adding some grain so it doesn't appear so static.

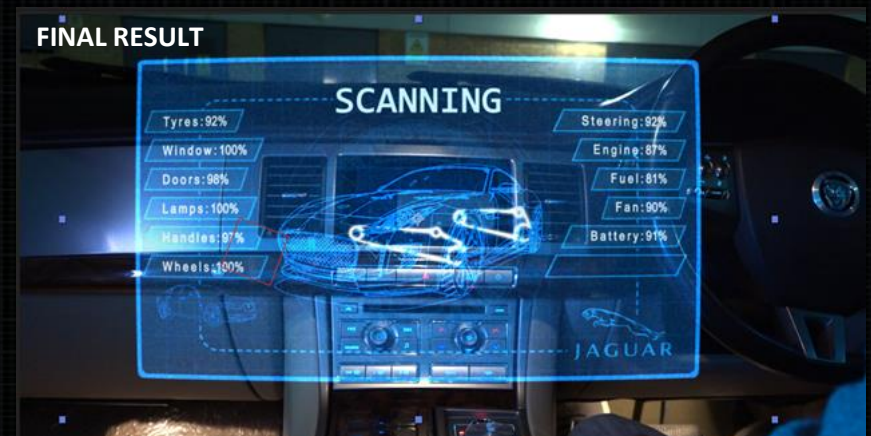


FIG 4: Hologram + CC lens effect + Add + Grain

COMPOSITING: ROTO

Due to the fact that the talent moves his hand across the hologram (and the hologram is supposed to be behind his arm), I had to roto his arm out and place it in front of the hologram.

The regular roto wouldn't sell this effect unless a form of motion blur is added to it. The only way around it was to roto a solid and use it as an **Alpha Matte** for another layer of the footage; after which motion blur is then added to the solid.

SOUND

PROJECTOR

SOUND

SELF REFLECTIOMN

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