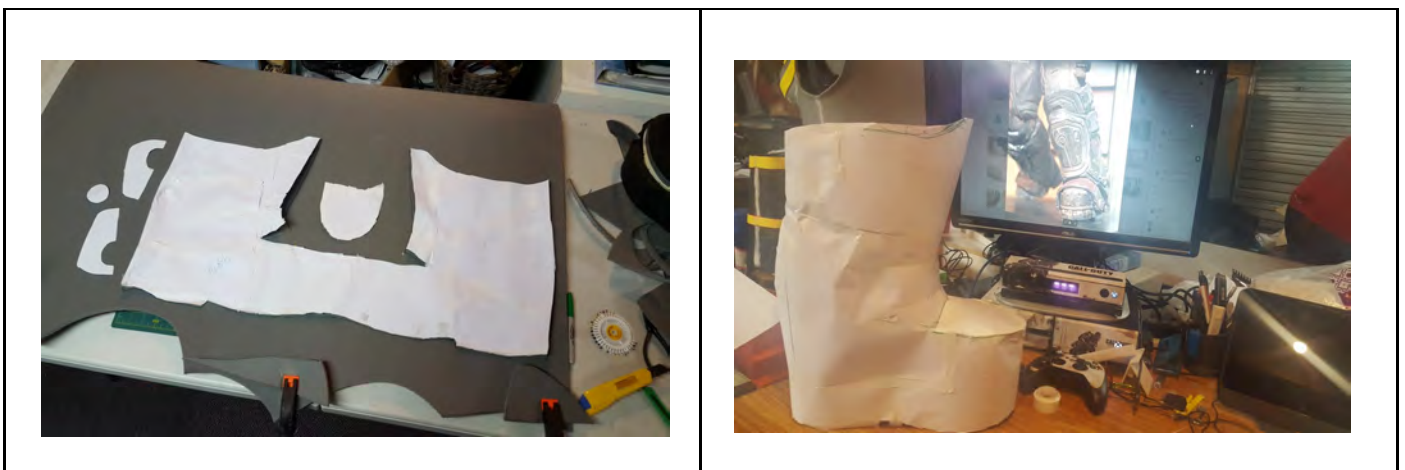
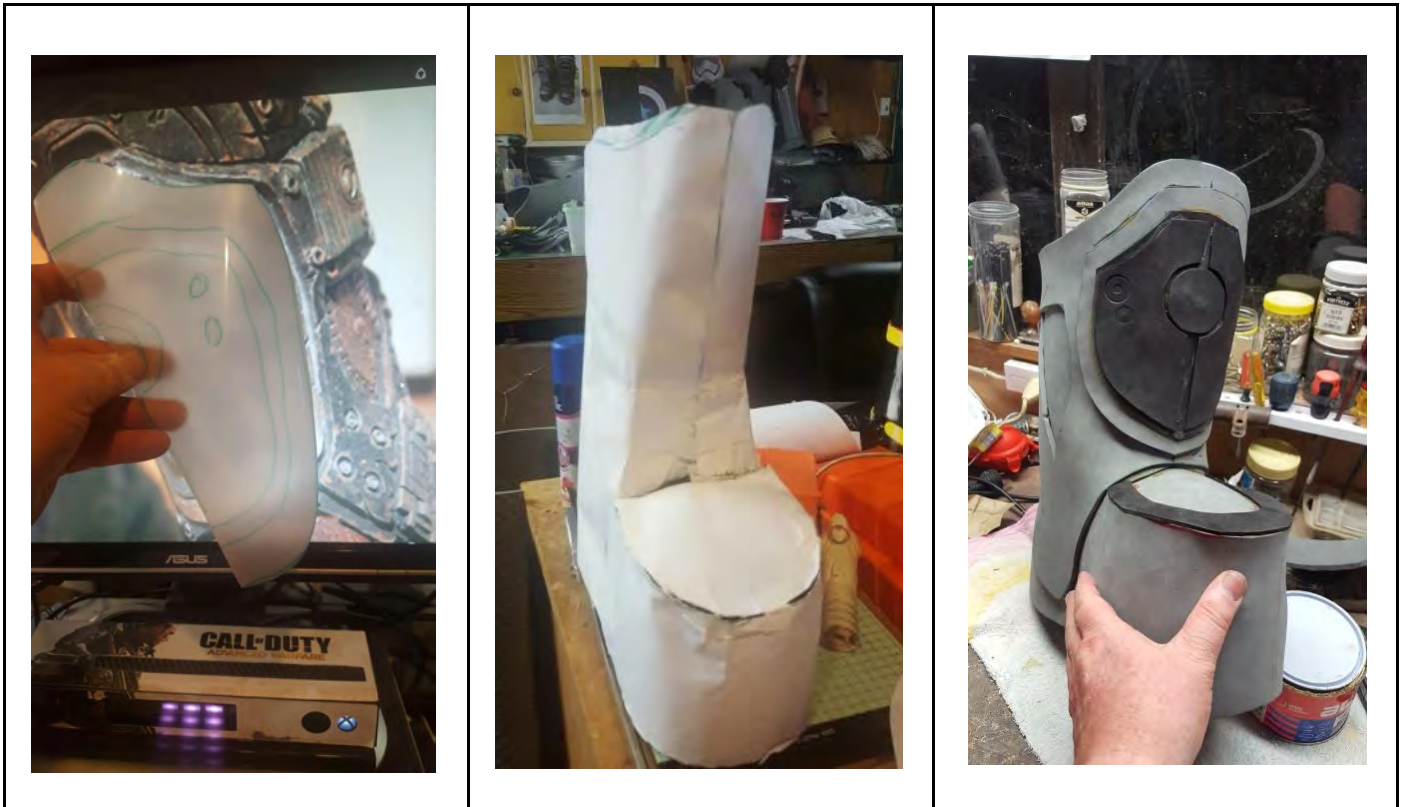


Techniques used and why

Templating

I created all templates freehand from the game screen. These were then transferred to butcher paper and then a mock up was made. This was then reverse engineered to templates and foam cut out to suit.

I felt this was the most useful method because I could not find any pepakura files. Fortunately I think I learnt more doing it this way!



Stretching and wrapping foam

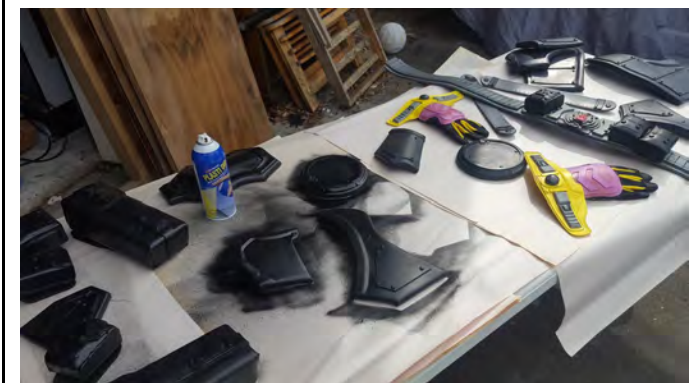
I created the embossed effect on my metal finishes by layering foam and wrapping it then head shrinking it in place. A nice smoothing effect. I used F2 and a heat gun to hold the embossed lower layers in place.

[\[BACK TO TOP\]](#)



Sealing and coating foam

I sealed the foam with hot air from a heat gun and then coated the individual pieces in PVA glue to seal ready for painting.



Faux Leather

I am very pleased with the finished boots. They raise me up about 75mm and are so comfortable that I can easily walk in them all day. The faux leather effect was created by mixing acrylic and oil based paints together and then swirling the drying paint with a dry brush.

[The gloves in this picture](#) were not quite finished and in need of black touchup paint.



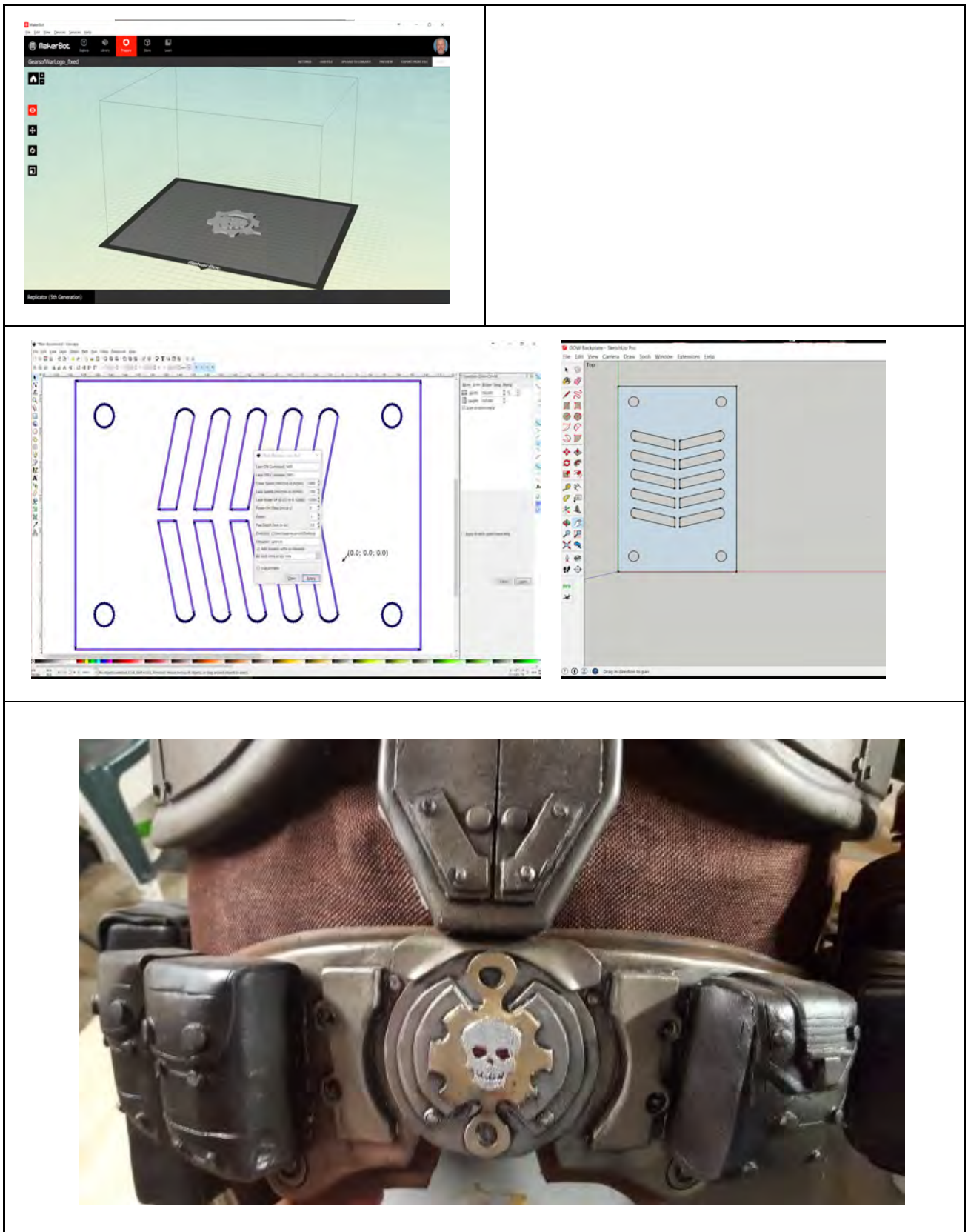
3D Modelling & Printing

The Lancer Mk II rifle 3D model was downloaded from the web. While I did not model the rifle I did slice, print and assemble the finished produce



3D Printing / Laser Cutting

A number of pieces on the costume have been 3D printed. I carefully traced the image with a vector graphic application and then transferred it to a 3D printer for printing. These printed emblems were heated gently and moulded into position



Components and complexity

BackPack

While the foam was a complex bit of shaping and moulding the most complicated part of my costume was the back pack. It incorporates foam, 3D printed components and electronics for lighting. It also clips in place

for quick removal. My initial attempt was almost a spotlight in intensity but with a bit of trial and error the final result was pleasing.



Electronics - LED Lighting

The electronics and lighting for the shoulder pads proved difficult and initial wooden frames failed. I finally settled on printing a 3D frame, adding blue cellophane and inserting small flashlights. I then shrink wrapped it in foam for a skin tight effect.



Laser Cutting Decals

These should be evident on the day as they are currently being modelled

Makeup & Prosthetics

My costume did not have any prosthetics however I may have a small facial scar on the day if there is time.

QUESTIONS

Is there anything you are particularly proud of?

I am particularly proud of the faux leather finish. I created this by mixing raw umber acrylic and burnt sienna oil paint. The two hated being mixed together, so much so that they maintained a degree of separation when

applied. I used a dry brush swirling technique to apply the paint mix to the foam. The finish was so good that it continues to fool many people.

I am also proud of the way I was able to wrap thin sheets of foam over thicker shapes to create an embossed effect. This looked more naturally like real metal work.

While I had some good existing knowledge when it came to using a 3D printing I always printed other peoples models - not my own so this was my first real attempt at 3D modelling and printing my own designs. I had to learn on the job so to speak and that learning curve was very high. Fortunately I was also able to use that new knowledge to step up to using a laser cutter I purchased for this project.

Any surprises while making the items that made the work easier or more difficult?

My first effort at boot creation was an absolute fail almost leading me to abandon the project in its early stages (See construction diary). However I returned to the project at a later date trying an alternative idea. This proved to be much better than I could have hoped for.

In contrast the belt with its small 3D printed skull and in places seven layers of foam was a great success. It came together quickly and I was easily able to freehand template it from the screen shots taken during game play.

Another thing that I am proud of is the metallic paintwork. It looks good and has a degree of weathering due to an unfortunate disagreement between my choice in fixative and the paint I was trying to protect.

If your entry is unfinished how do you plan to finish it?

I am satisfied with the state of this cosplay and will be moving to another next week!

Did anyone help you with your costumes and/or props?

You could say that I was a bit stage shy and did not want to be shown up as a poor cos-smith so I have worked with stubborn independence and isolation to create everything you see with the exception of the 3D model that I used to for the Gun and a pair of store bought but heavily modified gloves.

Everything else has been crafted freehand hand from beginning to end without assistance, commercial or otherwise.

The Gun model, while sourced from the internet, still needed modifying, slicing and printing on the 3D printer. Splitting resulted in 19 smaller parts, some of which took over 30 hours to print that needed re-assembling, sanding, filling and painting of course. Basically there were a lot of broken nights spent getting this major prop up to a suitable standard.

CONCLUSION

I have found this to be a challenging but enjoyable learning experience. Having never attempted anything like this before I have found it to be a game of two halves so to speak and definitely not the easy task I thought it would be.

Part of me has been filled with uncomfortable memories of the dismayed looks given me by my wife and some peers when I become engaged in animated conversation about my project.

The other half of me has been filled with a great deal of satisfaction and delight gained from learning how to create and do new 'stuff'.

Even more rewarding has been seeing the surprise and wonder on the faces of those who didn't think I could or would do it!

While this is my very first cosplay build, it not be my last.

AUTHENTICITY STATEMENT

I confirm that the work described in this document is my own.

I have not had the assistance of any other individual or organisation.

