Internet of Things Driven Cosplay

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In this paper we explore the potential impact IoT technology may have on cosplay and other such public communities.

We have fabricated and developed a costume piece that utilises embedded IoT technology to enhance both it's capabilities and user interactions.

Our research focuses on exploring scenarios where the audience may interact with and influence a costume in a public setting.

What is Cosplay?

Cosplay is the fusion of the words costume and play. It both describes the performance art of representing a specific character, or the costumes themselves.

Most participants engage by attending conventions, these events vary in size and theme:

- Small, local events like '*Cardiff Film & Comic Con*',
- Large, international events like '*Gamescom*' in Cologne

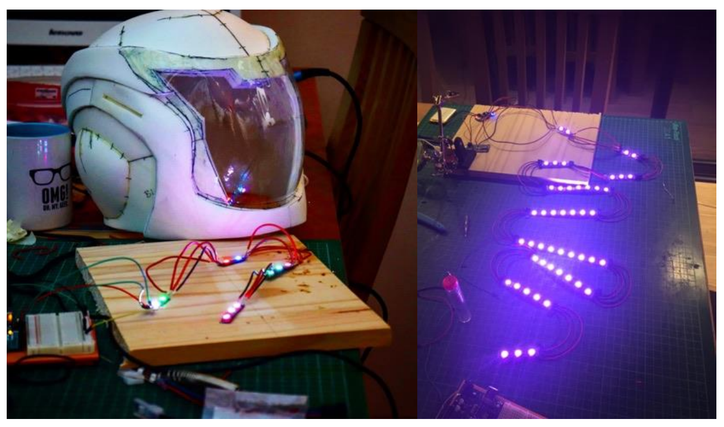
Such events are only gaining in popularity, San Diego Comic-Con is one of the largest events; with an attendance of over 130,000 individuals. This convention has consistently seen a 15% growth over the last 17 years.

We chose the '*An Insurmountable Skullfort*' from the popular game '*Destiny 2*' by Bungie, Inc.

The LED-matrix provided a wealth of possible user interactivity.

Focus Group Discussion

By utilising the costume piece as a concrete example, we conducted a focus group to identify the potential impact; they identified these themes:

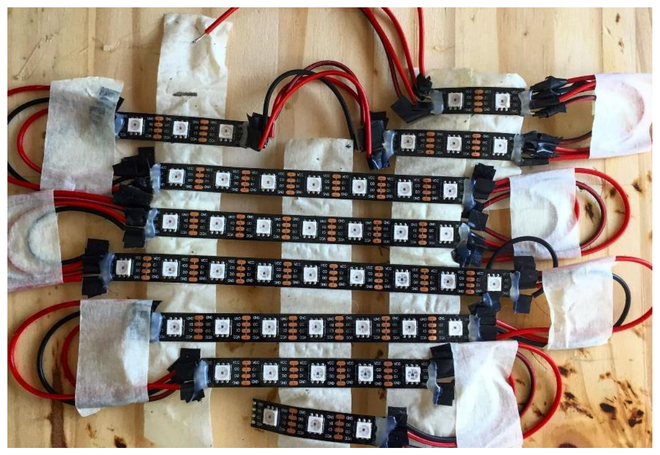


Completed LED Circuit

- **Attention Drawing**
  Such technology will capture the focus of others attending the event. This can be either positive or negative, depending on opinion.

- **Increased Complexity**
  Provides an opportunity for further creativity. Could impact the individual negatively if badly implemented.

- **Inappropriate, Abusive Comments, Hate Speech**
  The individuals wearing the device are just as liable for the content displayed as those who wrote it. Meaning, they could be punished for any problematic content.

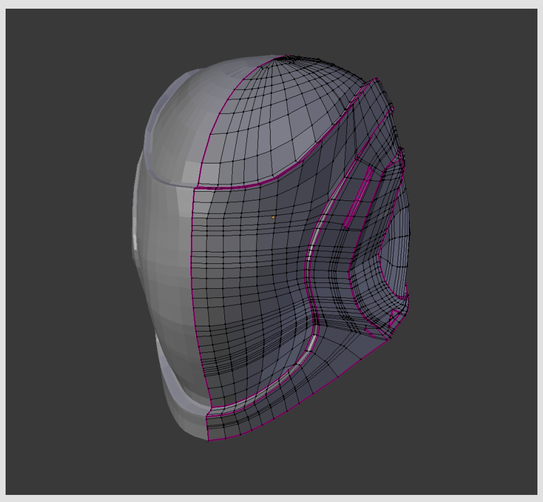


Fabrication Process

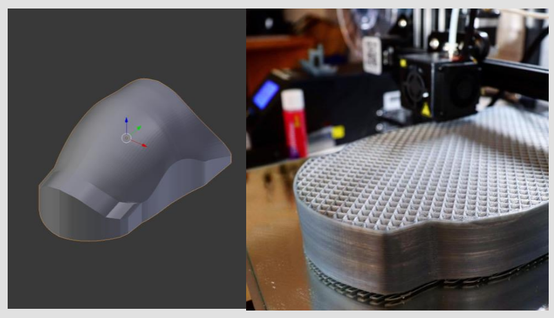
Once the costume piece was chosen, fabrication began:

1. Reference Images

2. 3D-Modelling



3. 3D-Printing



4. Vacuum Forming

5. Foam Fabrication

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