## 

**GNG 1103 Deliverable 6**

**Deliverable 6: Prototype 1**

Submitted by

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## **Introduction**

Prototyping is a very important step to product design which allows the production team to have a clear idea of the direction of the product. This step is a crucial step for testing out all the different ideas, materials, concepts, and mechanisms of a product. It’s important to note that there are many different types of prototyping, the first concept prototype of a design rarely becomes the final product, since it’s very simple and underdeveloped. This prototype usually consists of very inexpensive materials or resources, which will show the main intention of the product, as well as different main components. Having such prototypes will allow us to explore the various ideas and concepts of the design to find a product that suits the desired needs.

In terms of our prototype, it consisted of testing the dimensions of the product and if they suit the client, as well as many electrical components. Producing the first concept prototype was fairly easy since we knew what we wanted it to be weeks prior. When the main concept prototype was created, it became much easier and faster to create other prototypes. By the end of creating the first concept prototypes, everyone had a really good idea of how the main structure would turn out, and the compromises that had to be made so that we achieve the clients' needs.

Once all the prototyping material has been presented to the client, we will know exactly where the product will progress and most of the major features it will have. In this document, a list of every concept prototyped will be listed, as well as the client’s feedback and changes that may be needed for the next prototype. This prototype is simply a rough design and may or may not resemble the final product.

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## **Test Plan**

**Define purpose**

* The purpose of this design is to test the sizing and write positioning for the chest strap.

**Design concepts**

* Prototype will be an adjustable GoPro chest strap
* Measurable attributes include wearability, size/weight, comfortable, aesthetics.

**Testing methods**

* Users will test a physical prototype and give feedback on fitting and comfortability.
* Various movements will be made to simulate everyday activity

**Observations from test**

* The prototype fits properly and is adjustable to various sizes
* There is enough space to fit all electrical components
* Electrical components should not cause many issues with comfort or concealability

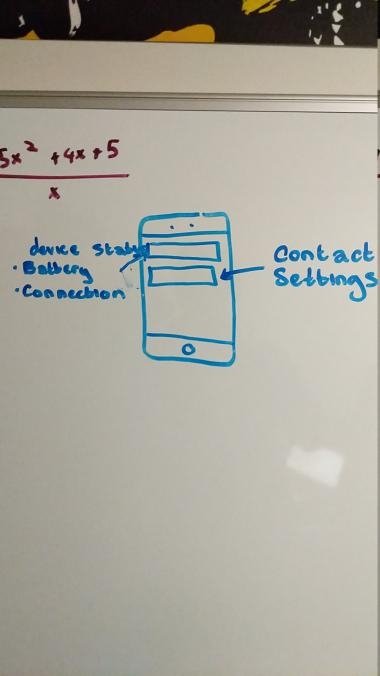
**Interpretations**

* The prototype attains the necessary criteria outlined in Target specifications related to/and the objectives for which is it was created as stated previously
* The test succeeds which allows the project to move forward as planned and with the same design overall.
* The results are very much applicable.

## **Prototype 1**

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**UI**

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The chest strap that the client will be wearing. Electronics will go on the plastic piece in the center.

**Conclusion**

The prototype described by the test plan outlined above proves that the design is a practical, wearable, and comfortable design. This is important as it affects the feasibility and utility of the device, and ensures we chose the right design going forward. It also shows us the flaws that can be approved upon and strengths to be kept for future prototypes.

## **Cited Work**

Bigras, J. (2020). Prototype 1 Introduction. *Deliverable D 2101*, 3–3.