Industrial Design for Game Hardware - Assignment 1

Project Description

Problem Definition:

The problem that we are going to solve is the portability and practicality of game controllers. Although our hands are all different sizes, controllers generally only come in one size. What if you could extend the controller to fit larger or smaller hands? What if you could shrink your controller into a smaller form factor for easy portability. Well now you can. Our controller focuses on accessibility, comfort, and portability. As a kid, your hands are often too small to enjoy games on consoles such as PlayStation or Xbox. Being able to quickly change the form factor of a controller to fit comfortably in your hands no matter how young or old or big or small you happen to be. Everyone should be able to enjoy playing video games without worrying about things such as this. Nintendo touched on this issue with the launch of the Switch. However, you need to carry around multiple parts for the controller. For example, you can switch to the pro controller if the joycons are too small, but that is a whole separate controller. You can also use the joy-con charging grip for a slightly more familiar and connected feel. However, again, this is a separate device that can easily be lost or forgotten and does not provide you with the same experience as a full controller.

Justification:

With computers and consoles becoming more and more popular the point of contact, being controllers, becomes very important to the experience of the user. Portability is an extremely important aspect of gaming in the modern age. No one wants to lug around a huge chunk of plastic to play their favorite game. Focusing on portability gives rise to more easy to carry controllers which allows users to game on the go. The reason why more people don't take controllers on the go and use them mostly at home is because they aren't all too portable. By creating more portable controllers, we can have more people buying and using controllers as a whole but more specifically on the go. Comfortability is also another central point with our intended controller. Controllers should feel like they belong in your hands rather than some chore to hold to play your favorite games. The more comfortable a controller is the greater chance of people picking it for their preferred method of play. Clunky controllers detract users from the games they play, resulting in an overall negative experience. These experiences can lead them to have a distaste for that certain controller or even from the game itself. We want our users to have a comfortable, portable gaming controller that they can pick up and use on the fly.

Ideation

Insert Question Boxes Here

Design Thinking Outcome:

Product Comparison

Similar or Related Products:

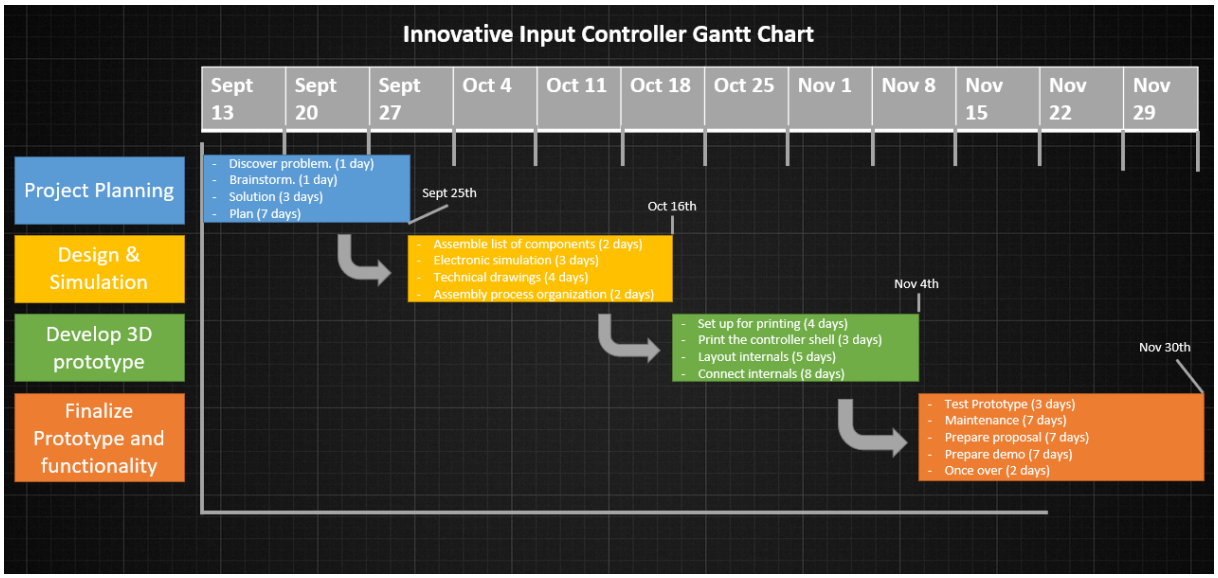
Other similar products could be the Nintendo Switch because it is designed for portability and has a modular design to fit different sized hands. Although the switch offers multiple products for different sizes or uses, this seems more like a money grab rather than an actual benefit, not to mention the need to carry multiple controllers or adapters everywhere you go. Consumers do not want to have to buy multiple devices for different use cases. Consumers want to buy one product that will suit all of their needs in an easy way. Our device is targeted towards any age and any size to bring comfort and portability to customers with one product rather than having multiple parts that could get lost or forgotten.

Other controllers for mobile devices are offering similar products such as the Razer Kishi or the Backbone. These devices offer a stretching capability to slide your mobile device into and play it similar to how a switch is played. However, this is only available for mobile devices. Also, there is no real adjustability for size because it is only designed to stretch to your phone size and then hold it in place on the ends. Although these options are useful for mobile devices, they still do not offer the same functionality as our controller and also only work with specific mobile phones.

No other company is doing exactly what we are planning to do.

Planning

Gantt Chart, Kanban Board, or other Diagram:



This Gantt chart represents a general overview of the project plan showing how long each stage will take to complete. We have outlined the project timeline from each important milestone in the project's description taking into account the three assignments and the final project which will conclude the controllers development cycle. Looking through the outlines for each assignment, we have a finite number of days for each stage. Breaking them down into smaller chunks, we were able to create a specific step by step outline to ensure we stay on track of meeting our deadlines. Taking the important deliverables and organizing them into a linear process makes it much simpler to show our process.

Roles & Responsibilities:

Andy Waterhouse:

- I will be designing the physical look of the controller and how to make use of its capabilities in the most efficient way. I will be taking a look at multiple controllers and determining what I like best about each of them to help create a comfortable, portable, and inclusive controller. I will be taking the lead role in Fusion360 to design the controller while the rest of the group focuses more on their tasks to help keep us on track. I will be creating mockups in blender and iterating on the design until we get to a point where I can start to create it in Fusion360. As a group, we will all be working on the creation of the controller layout and creation process but I will be creating the designs.