

A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is a light green. They are positioned diagonally, with the blue one partially covering the green one.

Assignment 1 Video Presentation

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Planning

	September 2022	October 2022	November 2022	December 2022
idea				
online simulation				
physical prototype				
testing				
final prototype				

Roles: Alexander Chow Main programmer
Joseph Carrillo Main hardware design



Ideation

1. Ask if they ever played with a controller with buttons behind the controller
2. Ask about what buttons they would use in simple games like turn based rpgs and mario party
3. Ask about button placement
4. Ask if they ever played a game with gyroscope movement and what worked and what did not
5. ask about problems with gyroscope

Ideation

1 Interview

8min (2 sessions x 4 minutes each)

Notes from your first interview

Interview 1

1. Has not used buttons behind the controller
2. d-pad and ABXY
3. Likes regular controls like a xbox controller for left and right
4. Has used gyroscope Inputs were not always responsive
5. Very high sensitivity

Interview 2

1. Has never used buttons behind the controller
2. Analog stick and face buttons
3. Likes regular controls like and xbox controller for left and right
4. Gyroscope is inaccurate most of the time
5. Does not like gyroscope

2 Dig deeper

6min (2 sessions x 3 minutes each)

Notes from your second interview

Interview 3

1. Has never used buttons behind the controller
2. Analog stick and face buttons
3. Likes regular controls like and xbox controller for left and right
4. Gyroscope is inaccurate most of the time
5. Does not like gyroscope

Interview 4

1. Has not used back buttons
2. Analog stick and face buttons
3. likes buttons on top and analog stick below for left and right
4. liked the wii mario kart controls but didn't like the button placements
5. unresponsive and inaccurate

Ideation

3 Capture findings 3min

Goals and Wishes:

Make a comfortable and simple one-handed controller for games that use a minimal amount of inputs

Insights:

We learned that most people think gyroscope on other controllers have been unreliable for playing and that button placement of an xbox controller feels good for most people

4 Take a stand with a point-of-view 3min



People with one hand

partner's name/description

needs a way to Play simple games with one hand

user's need

because (or “but...” or “Surprisingly...”)

[circle one]

They are uncomfortable using a regular controller, surprisingly there are not many one-handed controllers with simple controls

Ideation

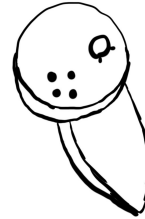
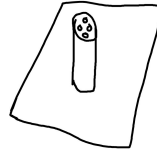
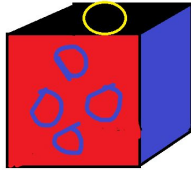
Ideate: generate alternatives to test.

5 Sketch at least 5 radical ways to meet your user's needs. 5min



There are not a lot of simple one-handed controllers available

write your problem statement above



6 Share your solutions & capture feedback. 10min (2 sessions x 5 minutes each)

Notes

The four people we showed all said that the final design looks the most comfortable and the easiest to use

Ideation

Iterate based on feedback.

7 Reflect & generate a new solution. 3min

Sketch your big idea, note



Ideation

Build and test.

8 Build your solution.

Make something your partner can interact with!



7min

d. 00000

9 Share your solution and get feedback.

+ What worked...

Feels somewhat comfortable and has all the inputs we need

- What could be improved...

The button layout needs to be changed

? Questions...

Will the controller be compatible with both hands

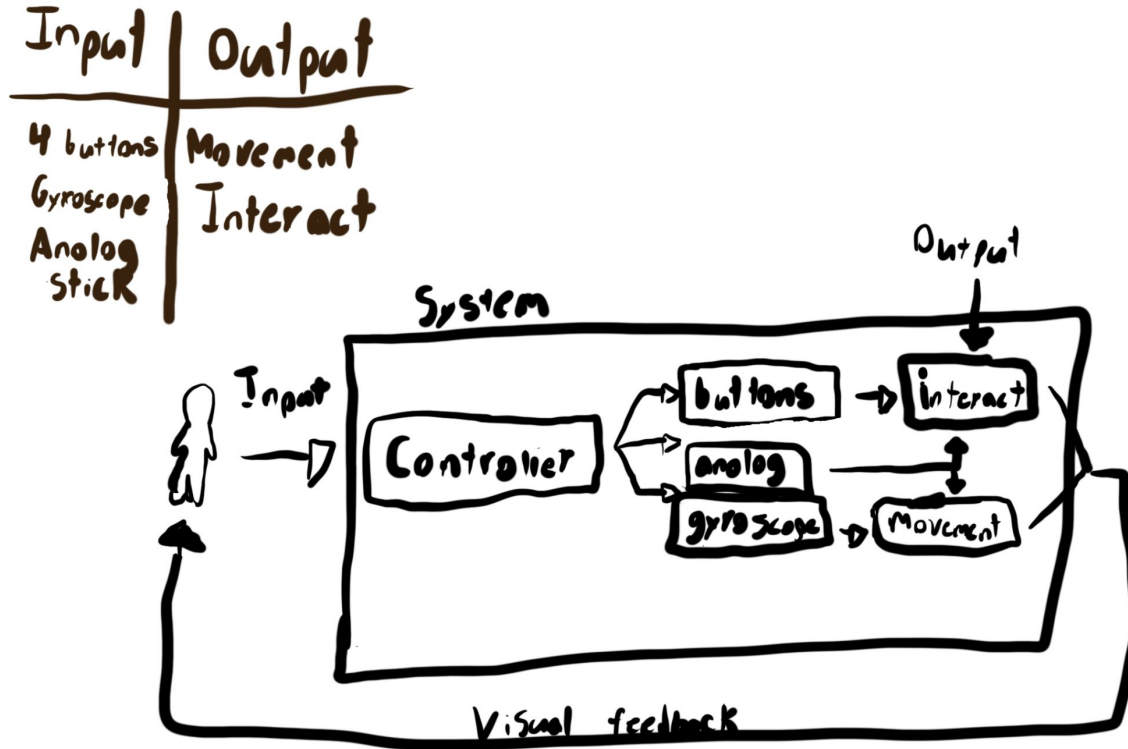
! Ideas...

Make the buttons and analog stick switchable

8min (2 sessions x 4 minutes each)



System architecture



Product Comparison



May 14 2013

Early one-handed controller
with simple controls



January 7 2019

Mod for two handed controller
to play with one hand

Product Comparison



January 26
2019

One-handed controller with all
buttons added



September 23
2020

More comfortable feel
to the controller



January 30
2022

Cheap mod for two-handed
controller to play with one hand



Thanks for watching