**System Architecture**

*Movement Foot*

*Inputs*

* Foot is used to provide input to the controller
  + Directional (rotation and position)
  + Pressure

*Hardware*

* Gyroscope provided data used to dictate what the player wants to do
  + In a menu, used to navigate options
  + In a game, can be used to control the player character’s vision
* Foot Pedal movement data
  + Used to indicate which direction a player wants to move in
* Pressure Sensor
  + Use recorded pressure to simulate an action such as sprinting or pushing the stick in (R3/L3 on controllers)

*Software*

* Foot pedal can record movement on both X and Y axis, similar to a joystick
  + Gyroscope used to record foot rotation on 3 axes f
* Pressure sensor used to measure how much force provided by user

*Outputs*

* Movement in a game
* Directional control for player camera
* Sprint Control

*Button Foot*

*Inputs*

* Foot
  + Position

*Hardware*

* Foot holder can move in 8 cardinal directions with each of the directions having a label displaying which button it represents.
  + The top 4 buttons (Triggers and Bumpers) will be on the top half of the labels, and bottom half will be the 4 action buttons (X, Square, Circle, Triangle)

*Software*

* Foot holder provides positional data on which button a player wants to press based on the input received.

*Outputs*

* A button in game is pressed, and something happens in game
  + If in a menu, some sort of result like confirming an option or going back
  + If in game, possible using an item, attack button, etc