

Commitment

- Ray:
 - Display camera output
 - Calculate the centers of the hands of the two players (both wearing LEDs)
 - Use the centers of the players' hands to calculate the change in position of their hands over some number of frames
 - Use the change in position to classify the players' actions as None or Punching
- PJ:
 - Game logic
 - Hits when players are within range
 - Health bar logic
 - Give players specified health
 - Loss of points for player hit depending on the attack type
 - Shown on seven-segment display
 - Sprites
 - Motion depending on state
 - punches/kicks/walking
 - Sprites cannot move through each other

Goal

- Ray:
 - Use the change in position of the players' hands (the LEDs) to classify their actions as None, Punching, Kicking, Moving Forwards or Moving Backwards
 - ~~○ Track and display the players' locations and actions~~
 - **Display the players' actions**
- PJ:
 - Game logic
 - Hits when players are within range
 - Health bar logic
 - Give players specified health
 - Loss of points for player hit depending on the attack type
 - Shown on seven-segment display
 - Incorporate death sequence in seven segment
 - Sprites
 - Motion depending on state
 - punches/kicks/walking
 - Sounds
 - Scuffling sounds for movement
 - Attack sounds made when players make an attack/get hit

Stretch

- Ray:
 - ~~Use the change in position of the players' hands to classify their actions as None, Punching (Regular), Punching (Fast), Kicking (Regular), Kicking (Fast), Moving Forwards or Moving Backwards~~
 - **Use the change in position of the players' hands (the LEDs) to classify their actions as None, Punching, Kicking, Moving Forwards, or Moving Backwards**
 - **In the case of Punching, Kicking, Moving Forwards or Moving Backwards, determine a speed/magnitude rating as well based on how fast the players move their hands (the LEDs)**
 - ~~More advanced graphics~~
 - Show hand tracking in the corner of the screen
 - **Use filtering to smoothen the tracking of the hands (LEDs)**
 - ~~Sew LEDs into gloves~~
(<https://www.exploratorium.edu/tinkering/projects/sewn-circuits>)
(https://www.chow.com/how_8787939_sew-led-clothes.html)
- PJ:
 - Game logic
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 - Give players specified health
 - Loss of points for player hit depending on the attack type
 - Shown on seven-segment display
 - Incorporate death sequence in seven segment
 - Sprites
 - Motion depending on state
 - punches/kicks/walking
 - Sounds
 - Scuffling sounds for movement
 - Attack sounds made when players make an attack/get hit
 - Leds flash for hits
 - Colour difference represents remaining health
 - On screen hits
 - Leds flash in response to player heartbeat