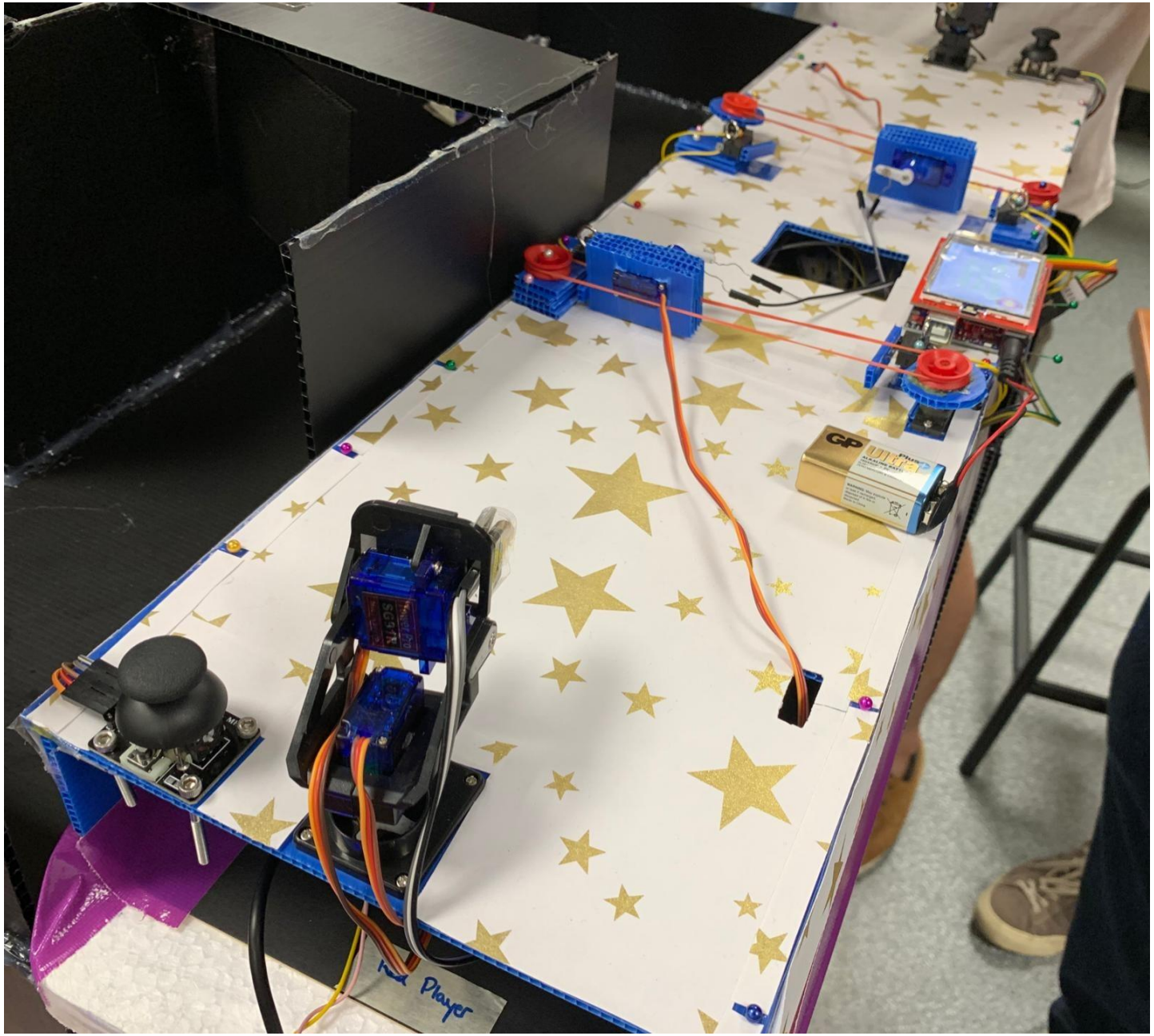
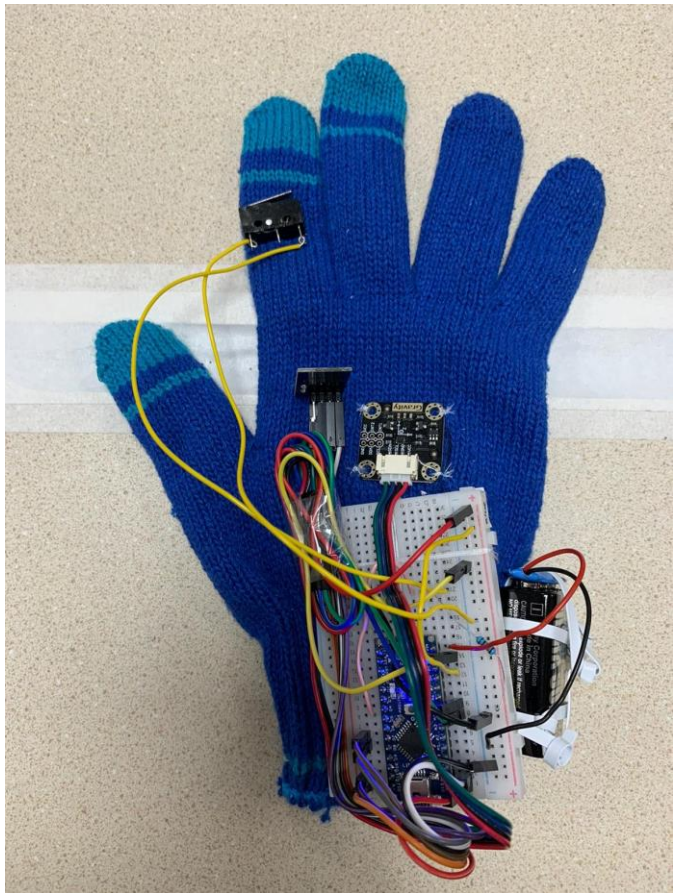
Arcade Game: SHOOTING STAR

Shooting Star - Gameplay

- First to score 2 hits wins the game
- Control the laser turret with a glove to tag the target board (photoresistor) while avoiding own target from getting hit with the joystick
- If hit by laser, the target board will have 2 seconds invincibility before becoming vulnerable again



Main Body



Glove

Shooting Star - Components

- Each glove consists of 1 Arduino Nanos and a trigger (limit switch) and accelerometer to control the orientation of the turrets and firing of the laser respectively
- 1 Arduino Mega to control all turret, lasers, laser receivers and target boards movement
  - Each target board is photoresistor controlled by the joystick
    - 180 Servo motors to control up down movement
    - 360 Servo motors to control the left right movement with rubber band conveyor belt
  - Each turret is controlled by a glove
    - 2 180 Srevo motor to control X and Y axis of the turret
    - 1 KY-008 laser module for register hit on photoresistor
- 1 LCD with Arduino Uno to display the score, with buzzer to play the music.

Shooting Star - Communications

- 3 NRF24L01 (radio module) for communication between the Arduino mega and the 2 gloves
- Serial communication (UART) between Arduino mega and the LCD

Shooting Star- Recorded Demonstration