

Raspberry Pi 4 Pinout Diagram

Pin Number :

- 1: 3.3 v power Relay
- 2: 5v Power Upper Servo
- 4: 5v Power Lower Servo
- 6: GND for Relay
- 9: GND Lower Servo
- 11: PWM Sig Lower Servo
- 12: PWM Upper Servo
- 14: GND Upper Servo
- 16: Phase A (Left Connection) Relay
- 18: Enable A (Middle Connection) Relay
- 22: Standby (Right Connection) Relay
- 29: Power Status LED
- 39: GND Status LED

Circuits:

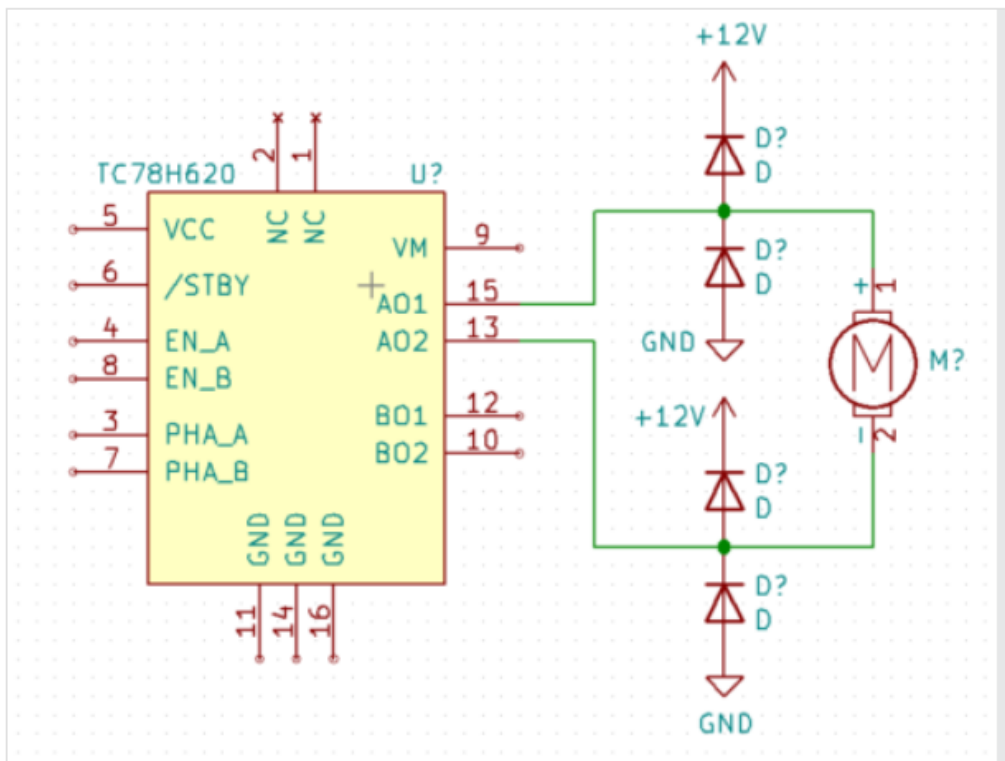


Figure 5: TC78H620 H-Bridge circuit with flyback diodes

Relay Circuit

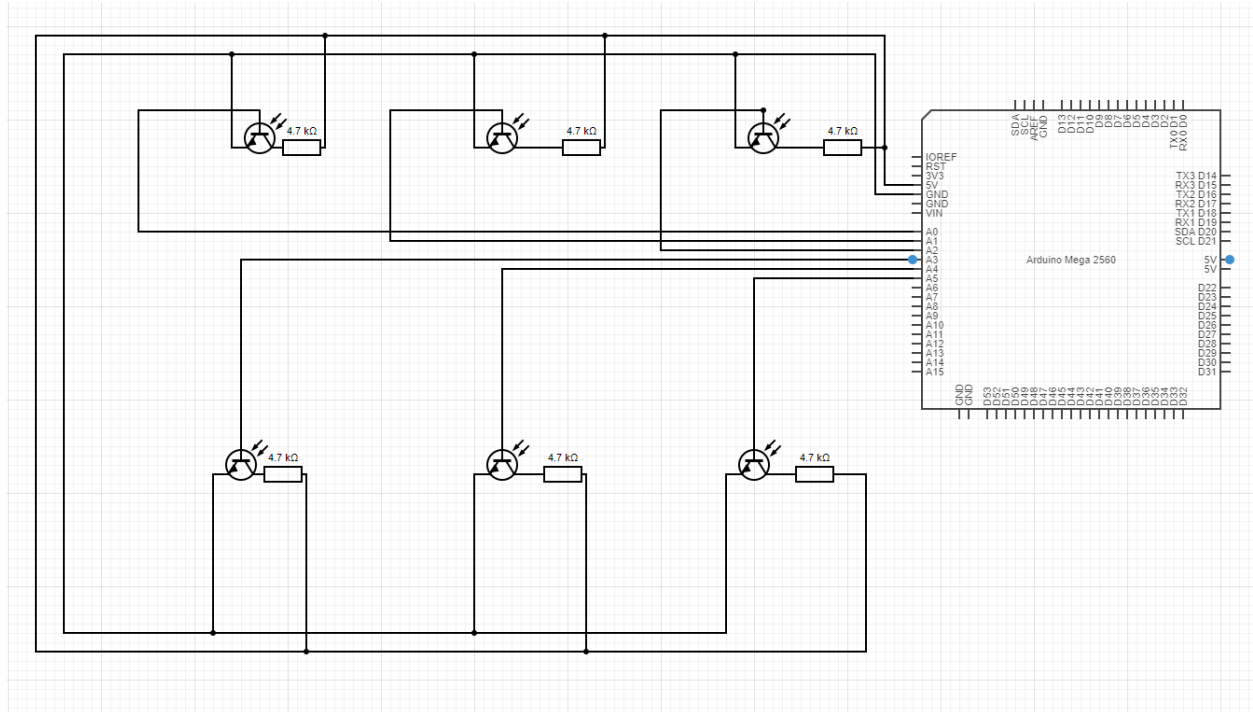


Photo Resistor Circuit

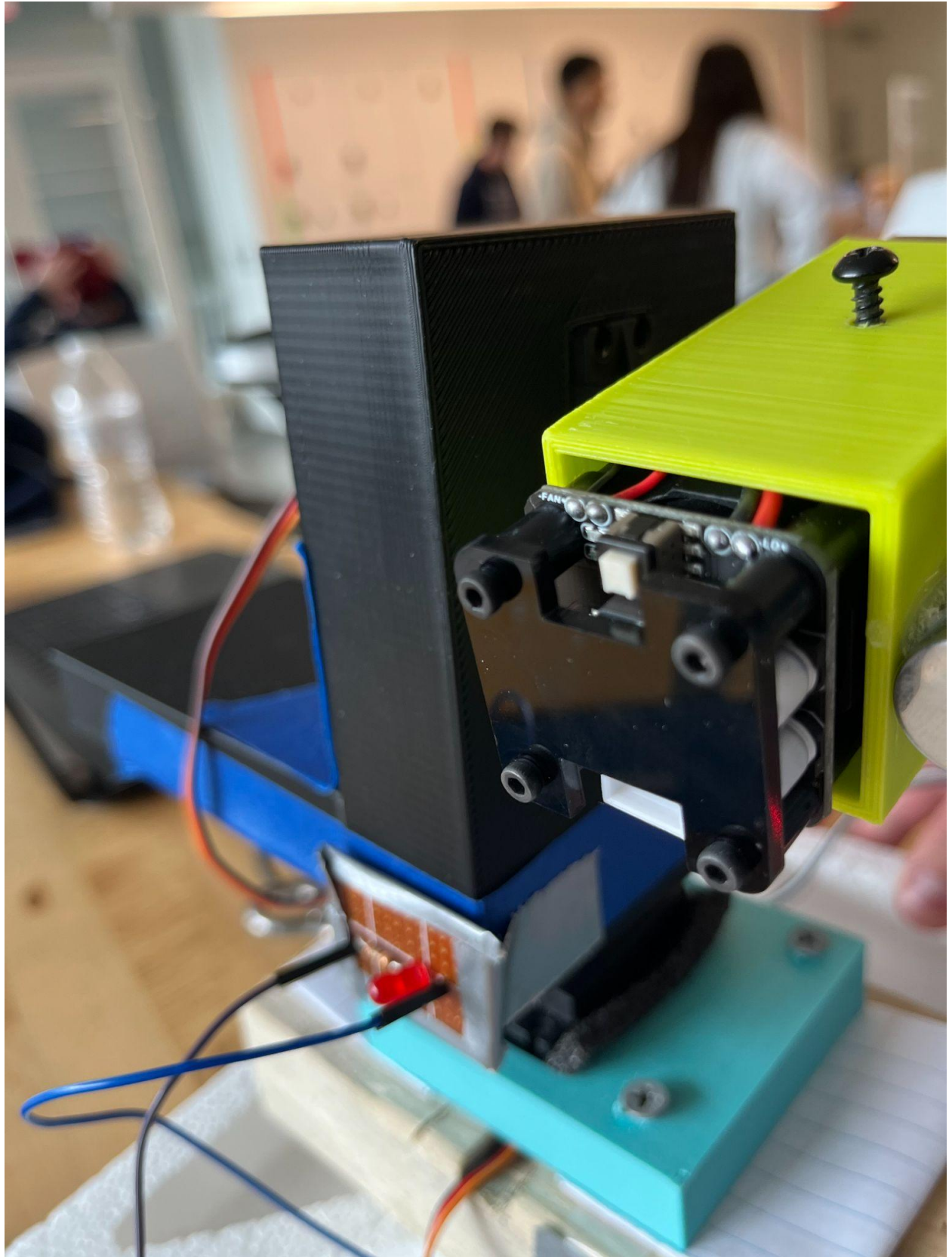
Components

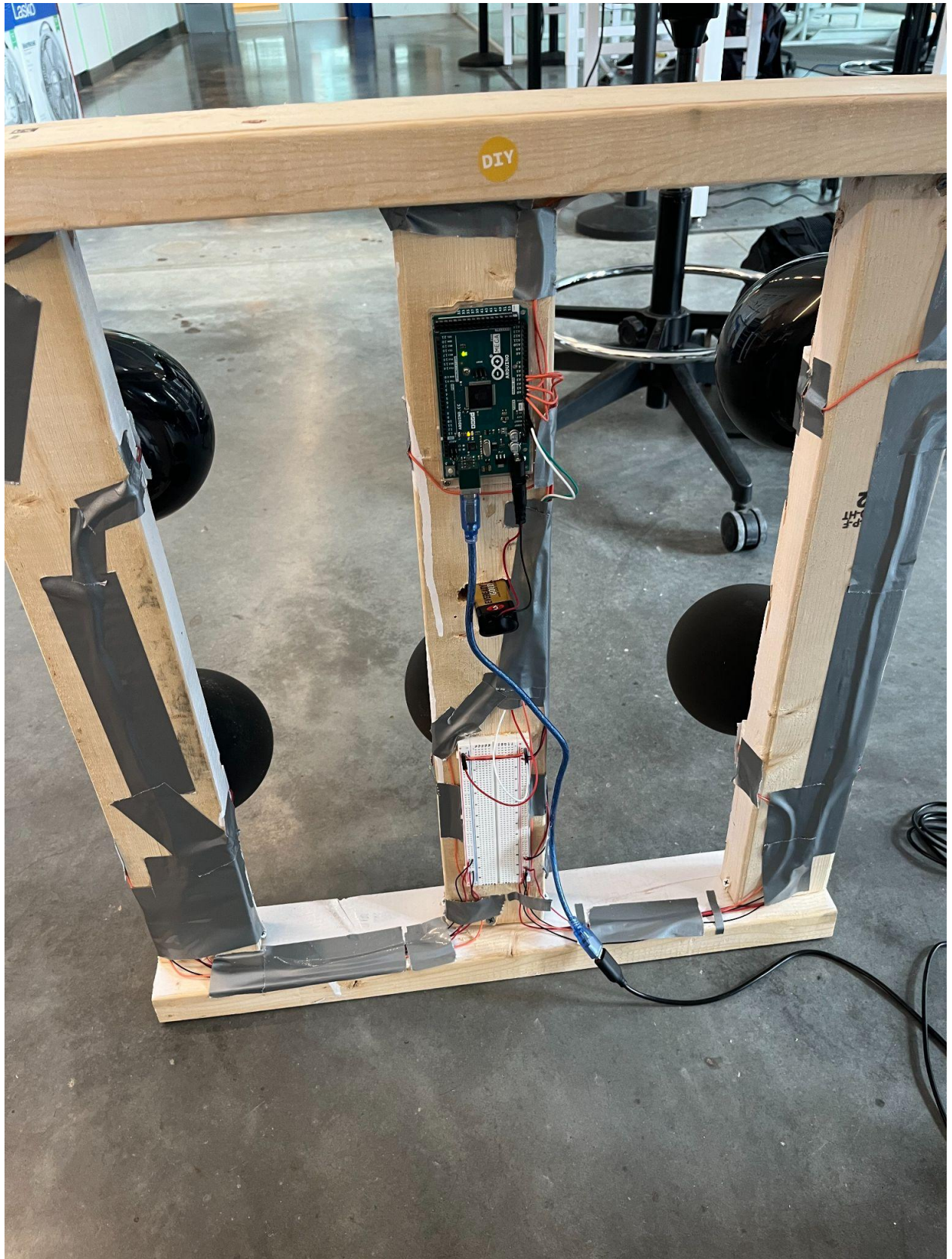
The components needed to play *one game* in no particular order:

- 1 W green laser
- 2 servos
- 3D printed mount for laser and servos
- 6 Black balloons (need to be reset for every game)
- 6 Photoresistors
- Board and frame
- Raspberry PI
- 3D Rumble Joystick
- Protective Laser Goggles
- Breadboards and wires
- GPIO wires
- LEDs
- Resistors
- USB cables
- Toy Laser pointer (aiming laser)









Demo Video:

https://www.youtube.com/watch?v=rTg7RmDaFHk&feature=youtu.be&ab_channel=SeanMaglio