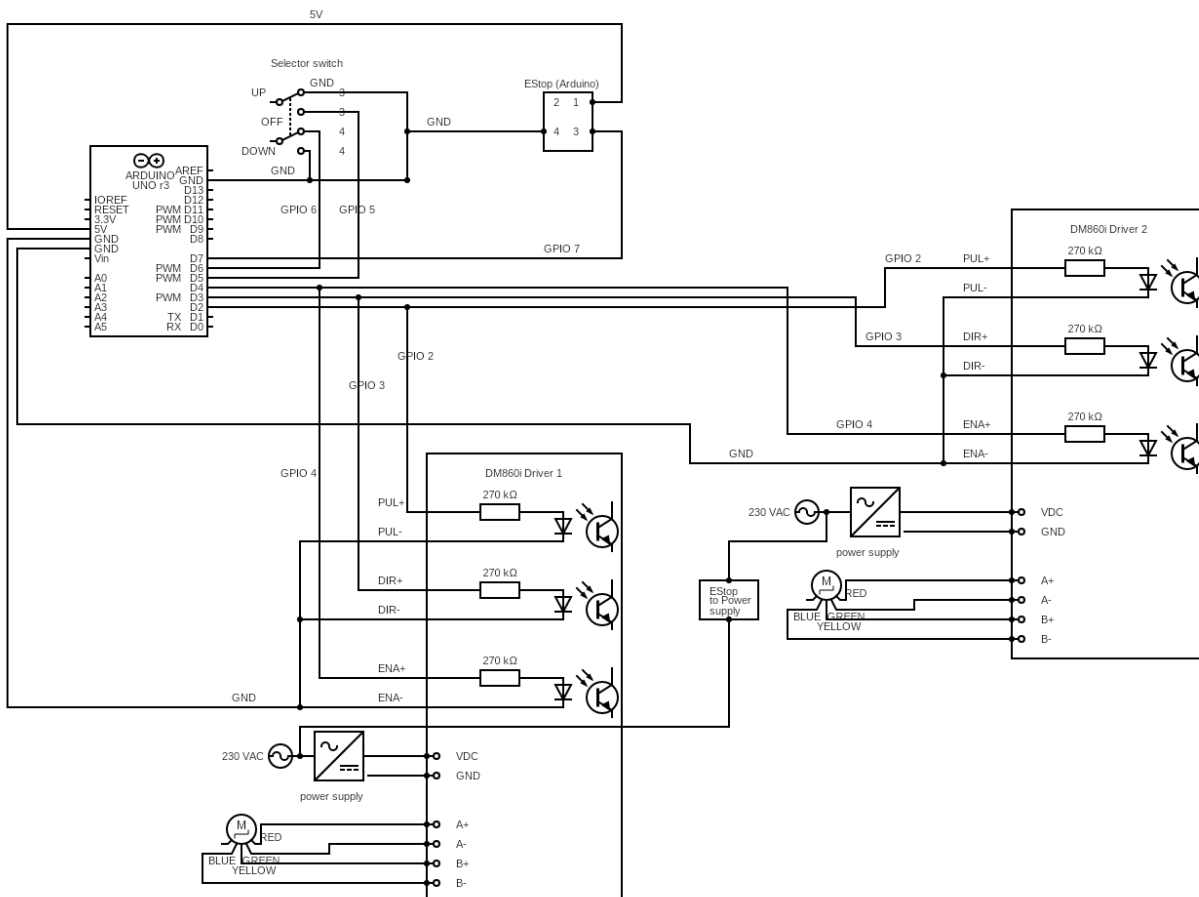


Components:

- Two NEMA 34 Stepper Motors (12Nm, 86*156mm, 1700oz.in)
- Two STEPPERONLINE DM860I NEMA 34 Digital Stepper Motor Drivers (2.4-7.2A 20-80VDC)
- Two STEPPERONLINE Switching Power Supply Stepper (350W 60V 5.9A 115/230V)
- An Arduino Uno Microcontroller
- A 3 Position Selector (ON-OFF-ON)
- Two Emergency Stop Buttons

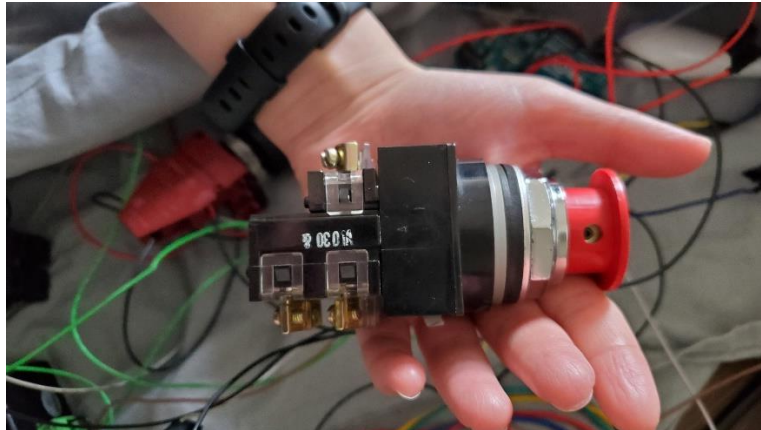
Wiring Diagram:



Wiring Instructions:

1. Locate the two switching power supplies and ensure that they are set at 230 VAC. Provide 230 VAC to both power supplies through the appropriate AC power source.
2. Locate the first Emergency Stop button with 6 pins, referencing the picture below. Connect the Emergency stop accordingly to cut off the AC power source to the power supplies if the button is

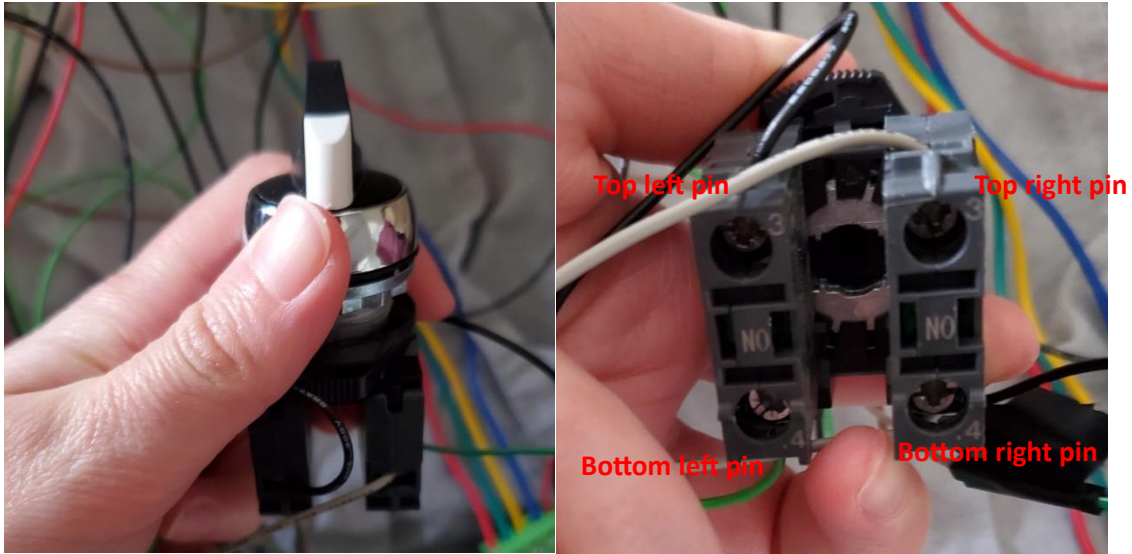
pressed. On one side, there are two pins which are pin 1 and 2 labeled NC. On the other side there are the rest of the four pins. Pins 1 and 2 are labeled NC and Pins 3 and 4 are labeled NO.



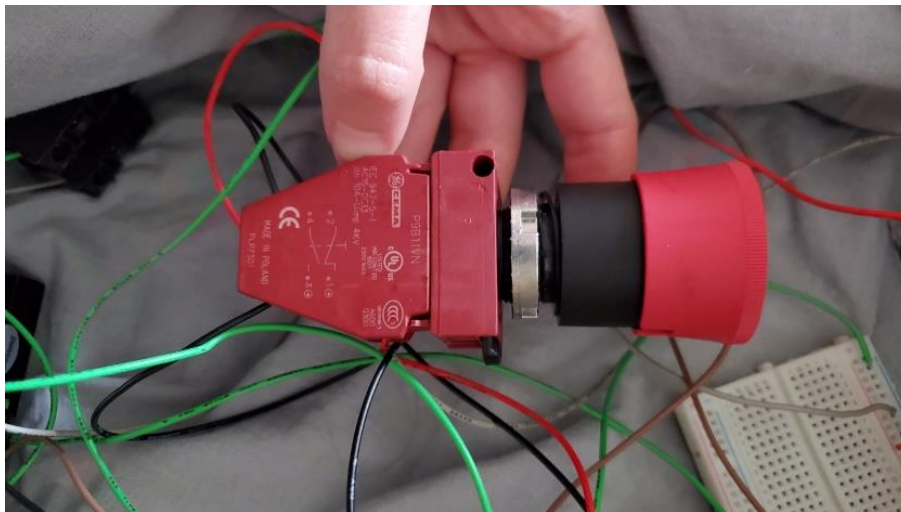
3. Locate the two motor drivers. Each power supply will be paired with a motor driver. For each power supply, connect the V+ to the VDC pin of the motor driver and the V- to the GND pin of the motor driver. Ensure that the motor drivers are set to the following settings:



- a. 1-7 are ON
 - b. 8 is OFF
4. Locate the two Stepper Motors. Each stepper motor will be connected to one of the motor drivers. The connections are as follows:
 - a. Connect the A+ driver pin to the motor's red wire
 - b. Connect the A- driver pin to the motor's green wire
 - c. Connect the B+ driver pin to the motor's yellow wire
 - d. Connect the B- driver pin to the motor's blue wire
5. Locate the Arduino Uno Microcontroller. For each motor driver, connect the DIR-, PUL-, and ENA- to each other and then to the Arduino's GND pin.
6. Next, for both drivers:
 - a. Connect the PUL+ pin to the Arduino's digital pin 2
 - b. Connect the DIR+ pin to the Arduino's digital pin 3
 - c. Connect the ENA+ pin to the Arduino's digital pin 4
7. Locate the selector switch. With reference to the picture below, make the following connections:



- a. Connect pin 3 (top left pin) and pin 4 (bottom right pin) to the GND pin of the Arduino
 - b. Connect the second pin 3 (top right pin) to the Arduino's digital pin 5
 - c. Connect the other pin 4 (bottom left pin) to the Arduino's digital pin 6
8. Next, Locate the Emergency Stop button with 4 pins, referencing the picture below.



- a. Connect the Emergency Stop's pin 1 to the Arduino's 5v pin
 - b. Connect the Emergency Stop's pin 2 is left unwired
 - c. Connect the Emergency Stop's pin 3 to the Arduino's digital pin 7
 - d. Connect the Emergency Stop's pin 4 to the Arduino's GND pin
9. Supply the Arduino Uno with power using the provided 9V Power Supply Adapter. The code is uploaded onto the Arduino Uno and ready to go.

