

Assembly Instruction Supplemental Images:

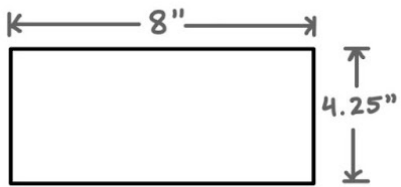


Figure 1: Cardboard Base Side Wall (1)

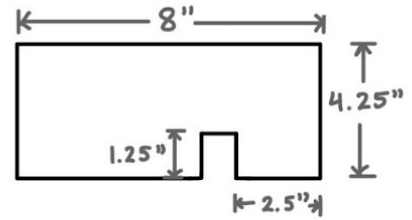


Figure 2: Cardboard Base Side Wall (2)

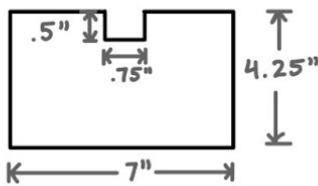


Figure 3: Cardboard Base Front Wall

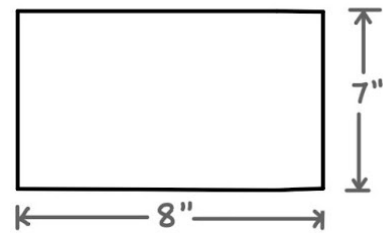


Figure 4: Cardboard Base Bottom Plate

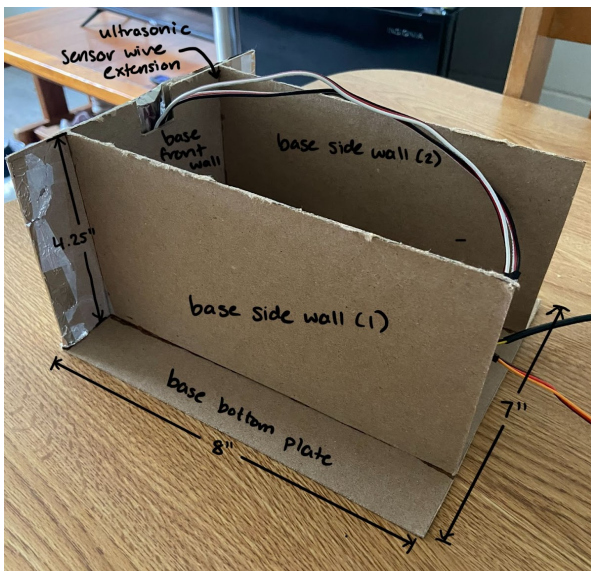


Figure 5: Assembly of base of robot

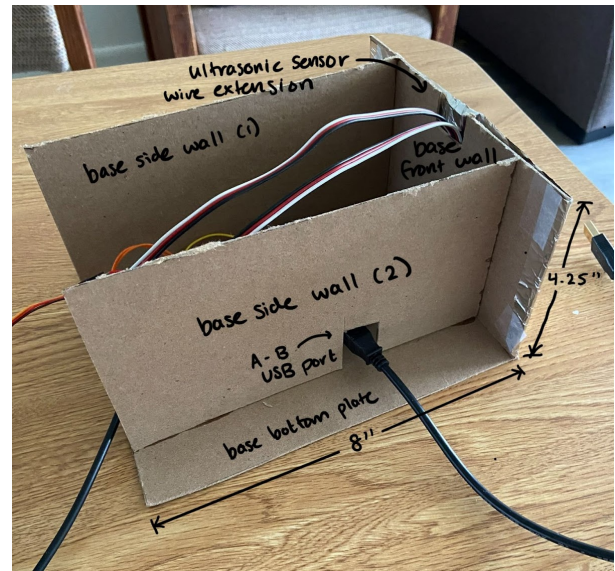


Figure 6: Other side of Assembly of robot



Figure 7: Ultrasonic Sensor Wire Taped Down

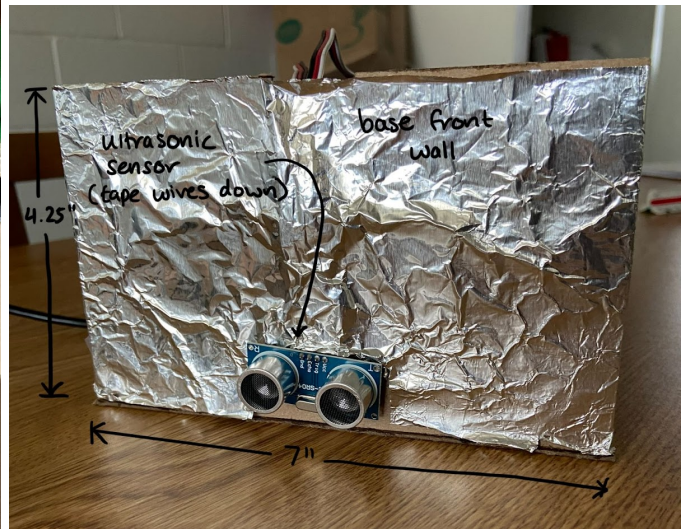


Figure 8: Front Wall Assembly w/ Ultrasonic Sensor

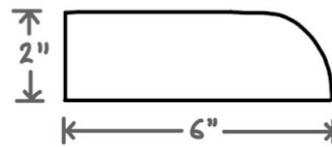


Figure 10: Cardboard Slider Crank Wall

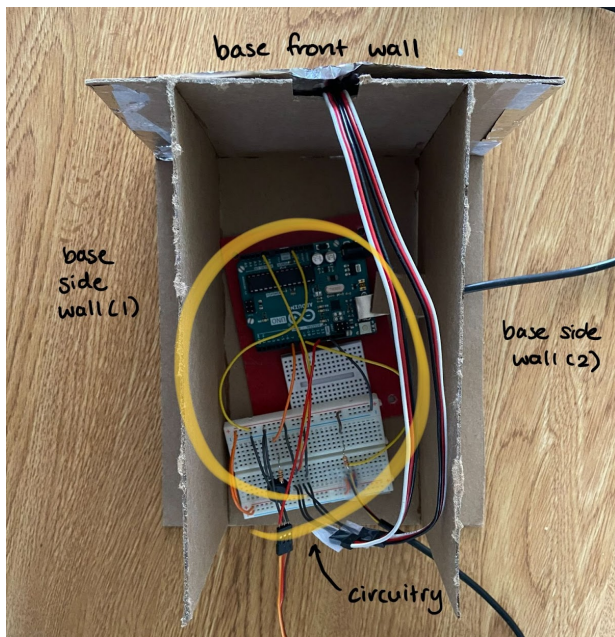


Figure 9: Circuitry with Finished Base Mount

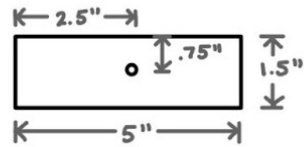


Figure 11: Cardboard Slider Crank Pusher

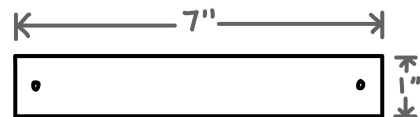


Figure 12: Cardboard Slider Crank Arm

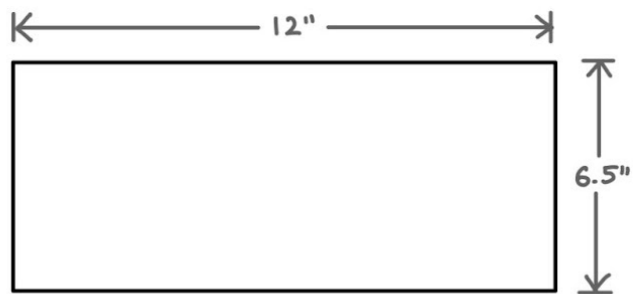


Figure 13: Cardboard Slider Crank Base

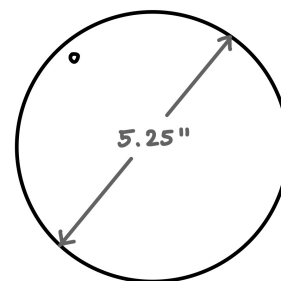


Figure 14: Cardboard Slider Crank Wheel

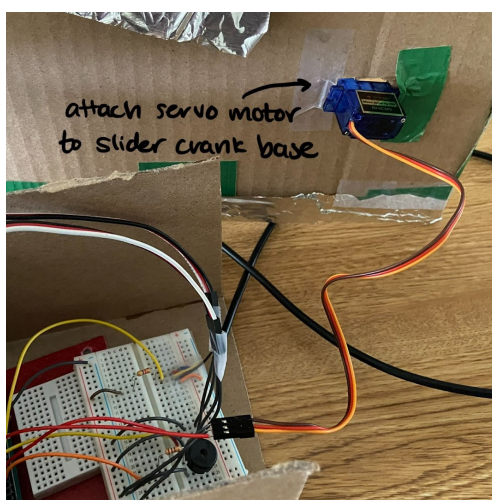


Figure 15: Servo Motor Attachment to Base

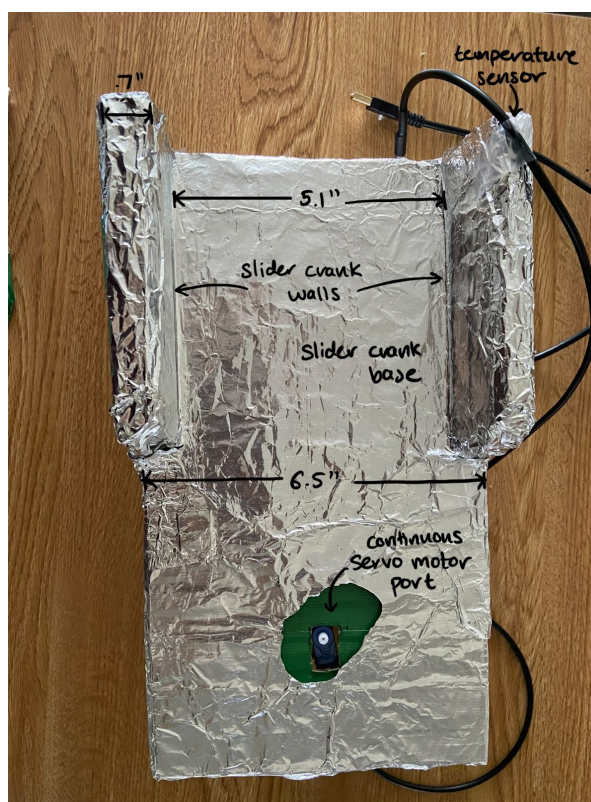


Figure 16: Slider Crank Wall Attachment, Foil Overlay

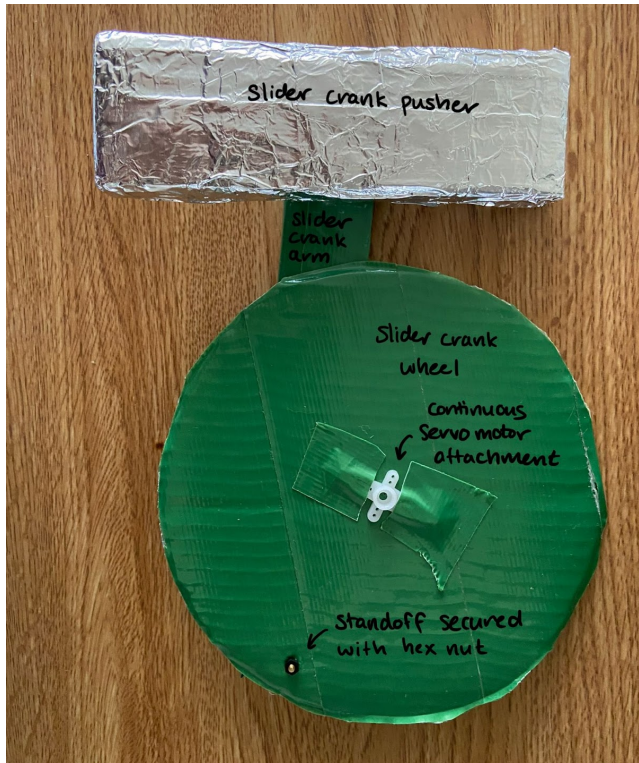


Figure 17: Bottom of Slider Crank Mechanism

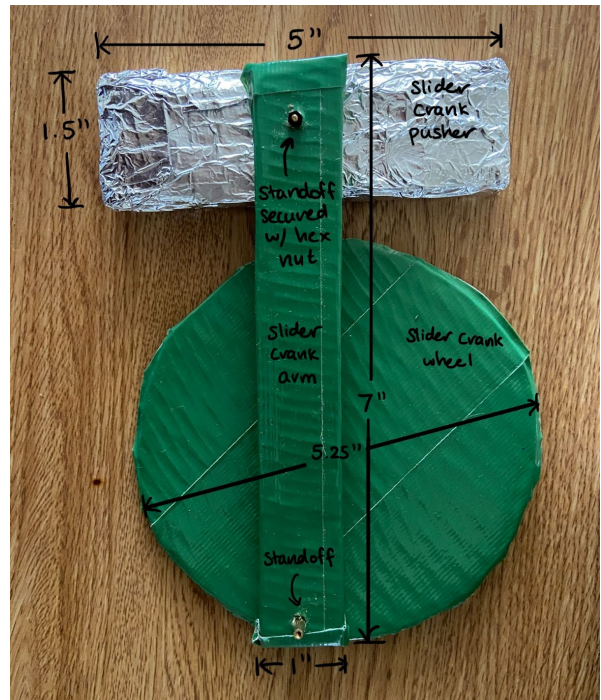


Figure 18: Top of Slider Crank Mechanism



Figure 19: Finished Slider Crank Mechanism



Figure 20: Finished RoboRamen©



Figure 21: Finished RoboRamen© with Ramen

#### IV. Appendix D: Commented Arduino Code

// C++ code

//This code is for my RoboRamen. The ultrasonic sensor senses how far it is from the  
//hot pot and causes the red LED light to turn on if it is closer than 4 cm to the hot pot.  
//The temperature sensor, when it senses 100 degrees Celsius or the water boiling,  
//causes the servo motor to turn (which operates a slider-crank mechanism) that pushes  
//the ramen noodles into the pot. A timer is set from there with the delay function and  
//after it is done, the alarm goes off to alert that the ramen is done. The loop for the code  
//stops after that as well.

```
#include <Servo.h>
#define NOTE_B0 31
#define NOTE_C1 33
#define NOTE_CS1 35
#define NOTE_D1 37
#define NOTE_DS1 39
#define NOTE_E1 41
#define NOTE_F1 44
#define NOTE_FS1 46
#define NOTE_G1 49
#define NOTE_GS1 52
#define NOTE_A1 55
#define NOTE_AS1 58
```