



Coffee Crush

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WHY?

Why did we choose this idea.





MAIN IDEA

Enabling users to customize their coffee according to their preferences.



FEATURES



Flexibility

Choosing the quantity of ingredients.



Fully

Grinding ingredients.



Automatic

Coffee box packaging.

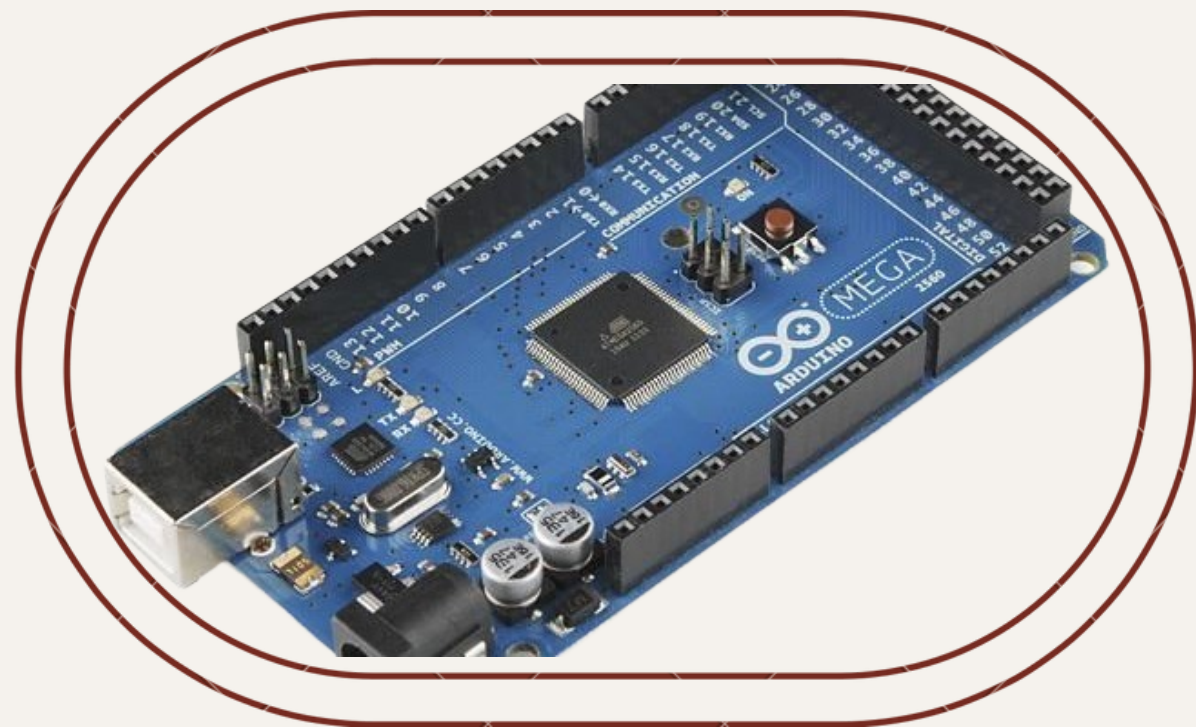
STRUCTURE



HARDWARE COMPONENTS

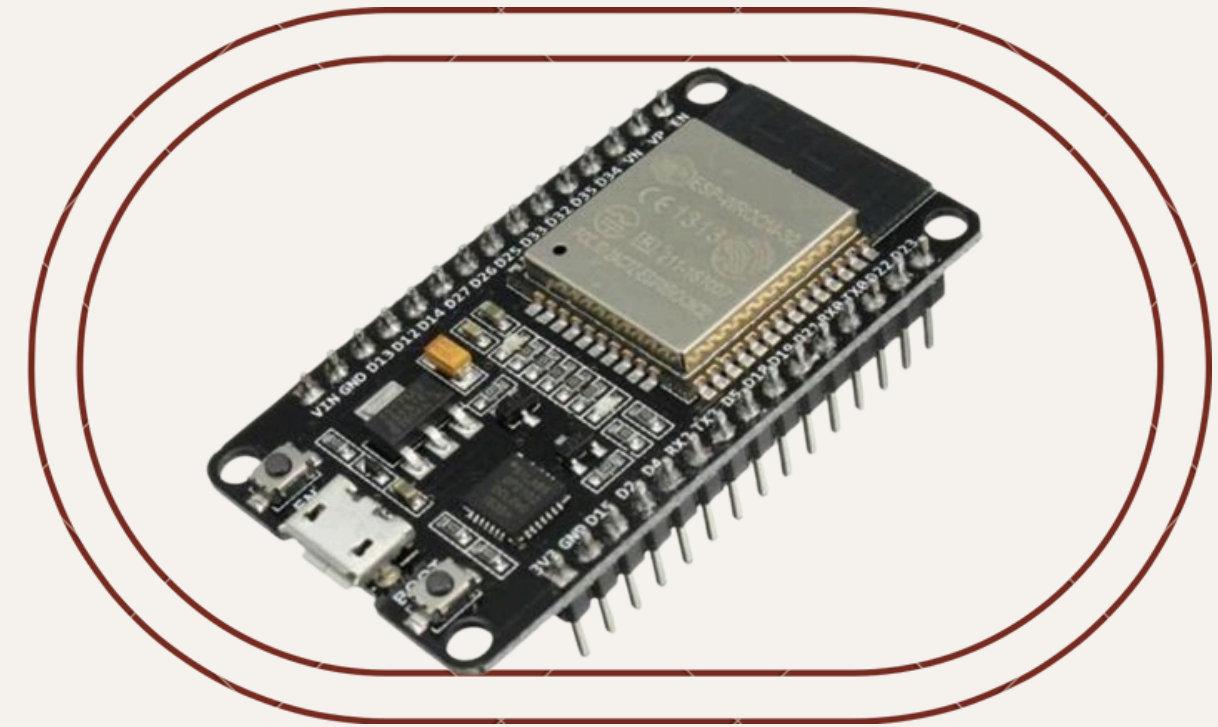


Main Components



Arduino Mega 2560

Power Supply

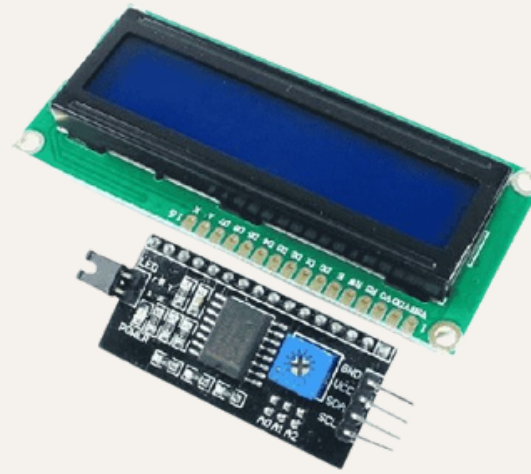


Esp32-WROOM-32

HARDWARE COMPONENTS



Choosing Ingredients



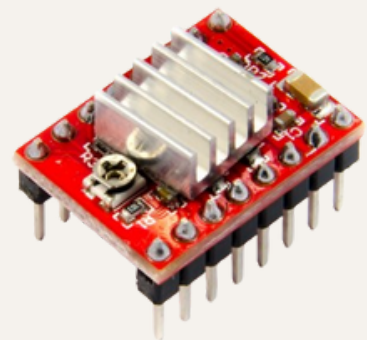
LCD with I2C



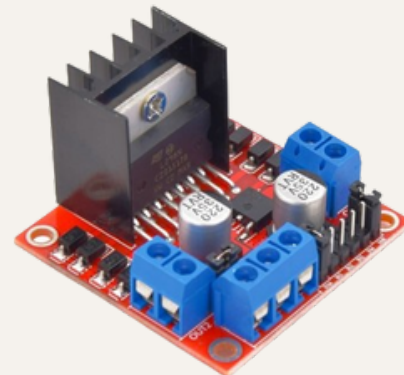
Keypad



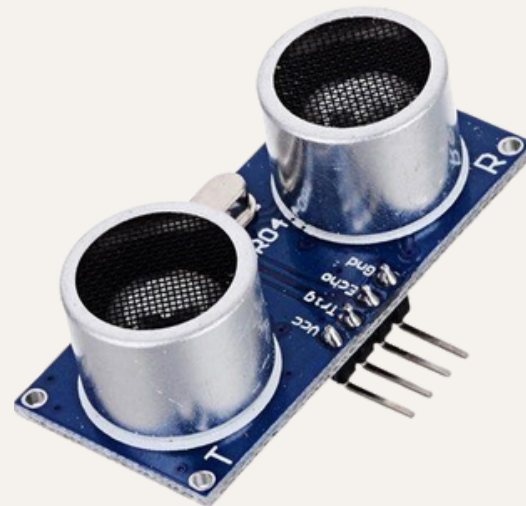
NEMA17 Stepper Motor



A4982 Driver



H-bridge



Ultrasonic



HARDWARE COMPONENTS



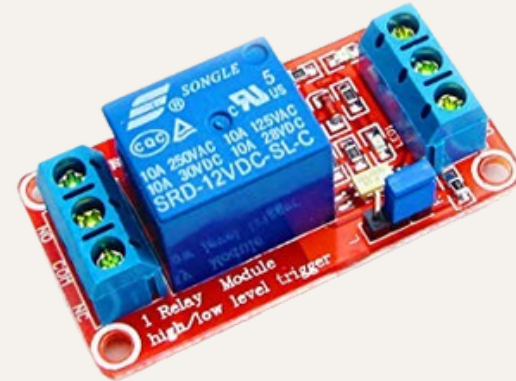
Grinding Ingredients



Car DC Motor



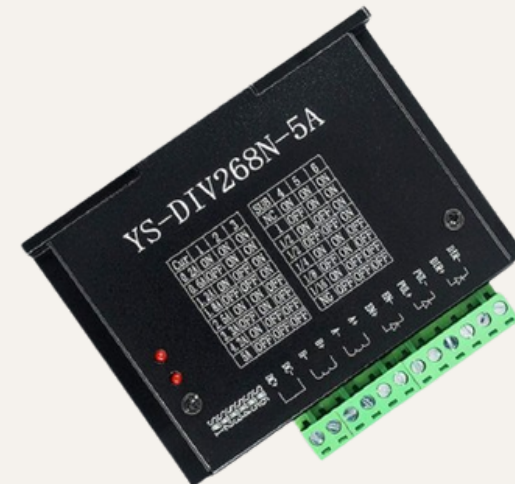
J-5718HB2401 Stepper Motor



Relay 1-channel



Relay 2-channel



YS-DIV268N Driver

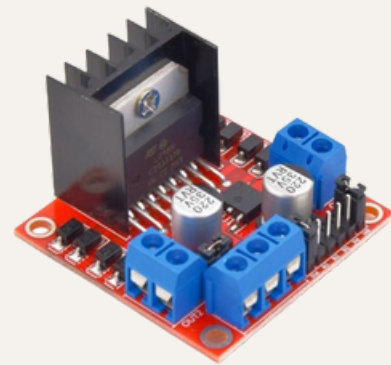


HARDWARE COMPONENTS

Packaging Box



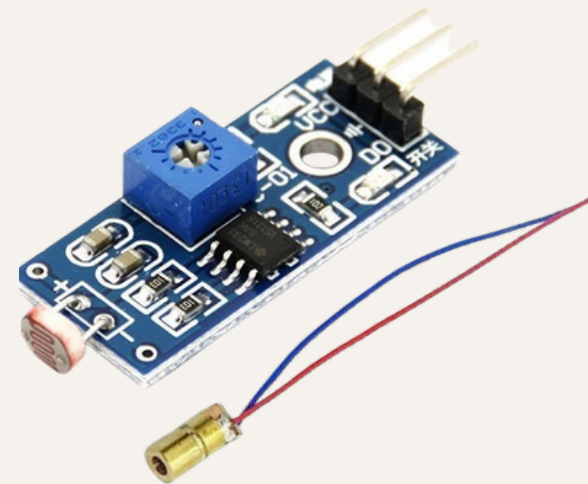
NEMA17 Stepper Motor



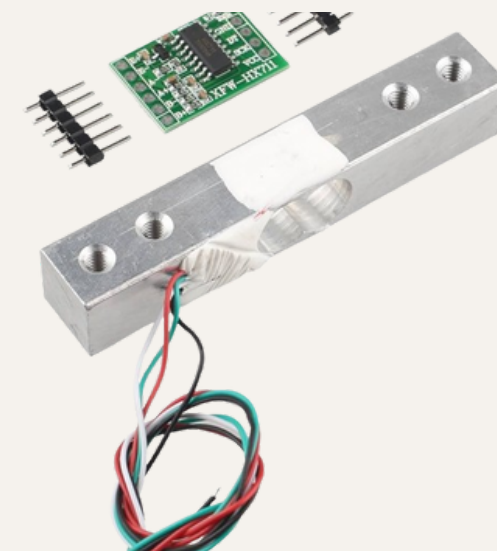
H-bridge



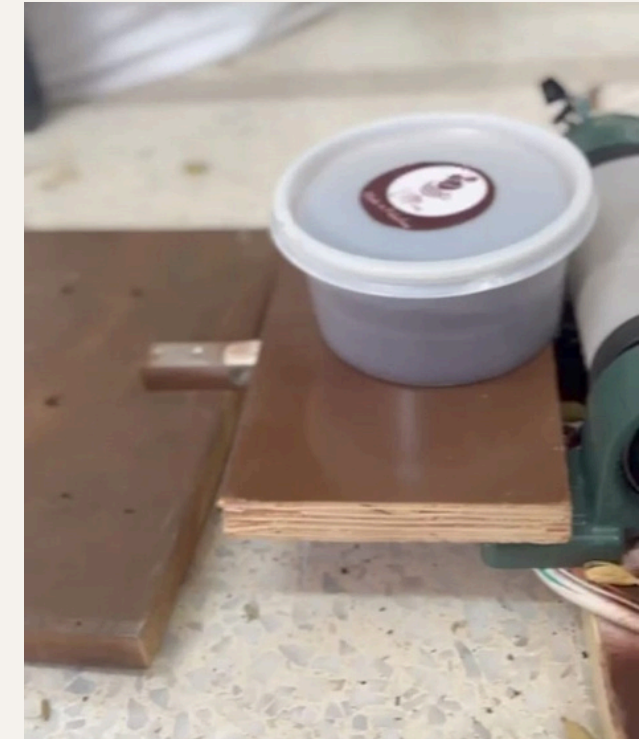
Car DC Motor



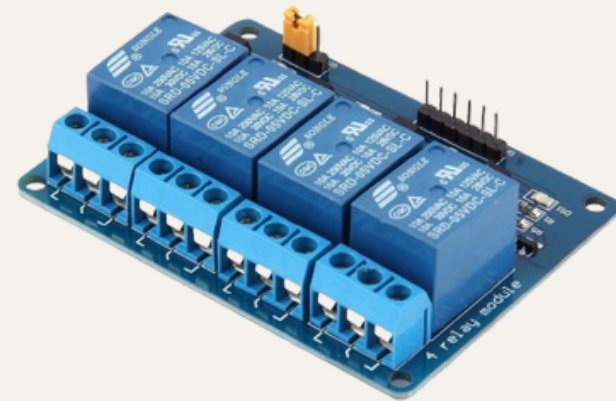
LDR+Laser



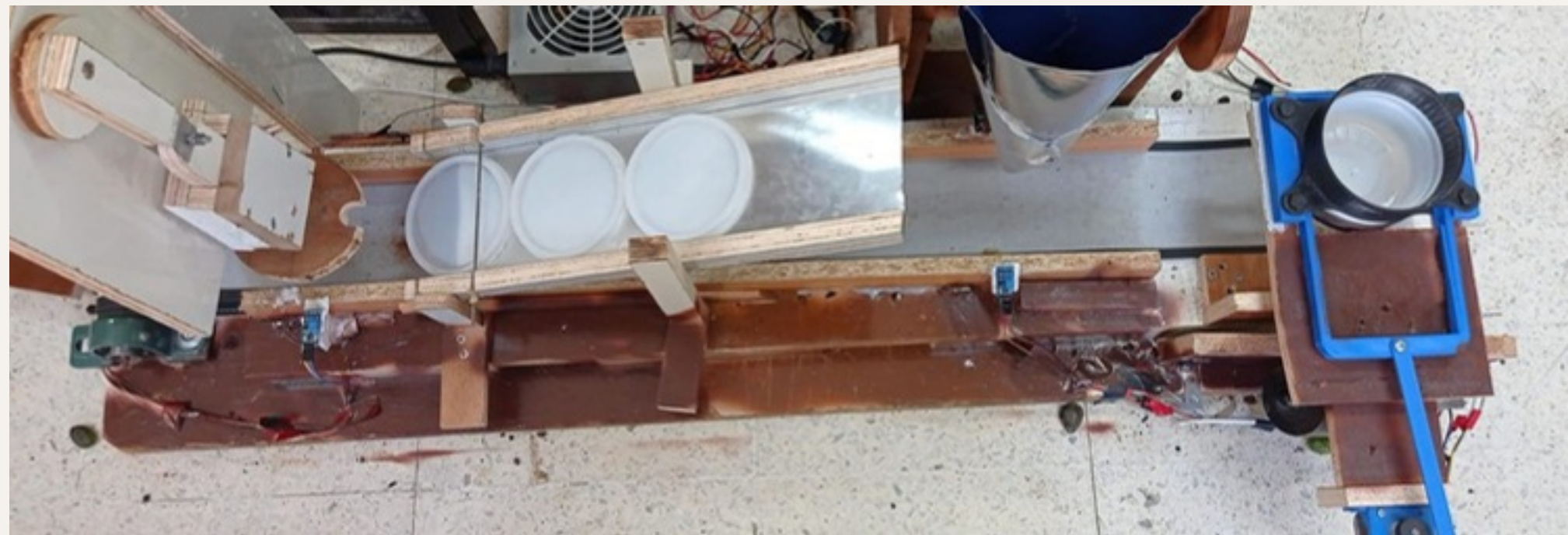
Load Cell Sensor+HX711 Amplifier



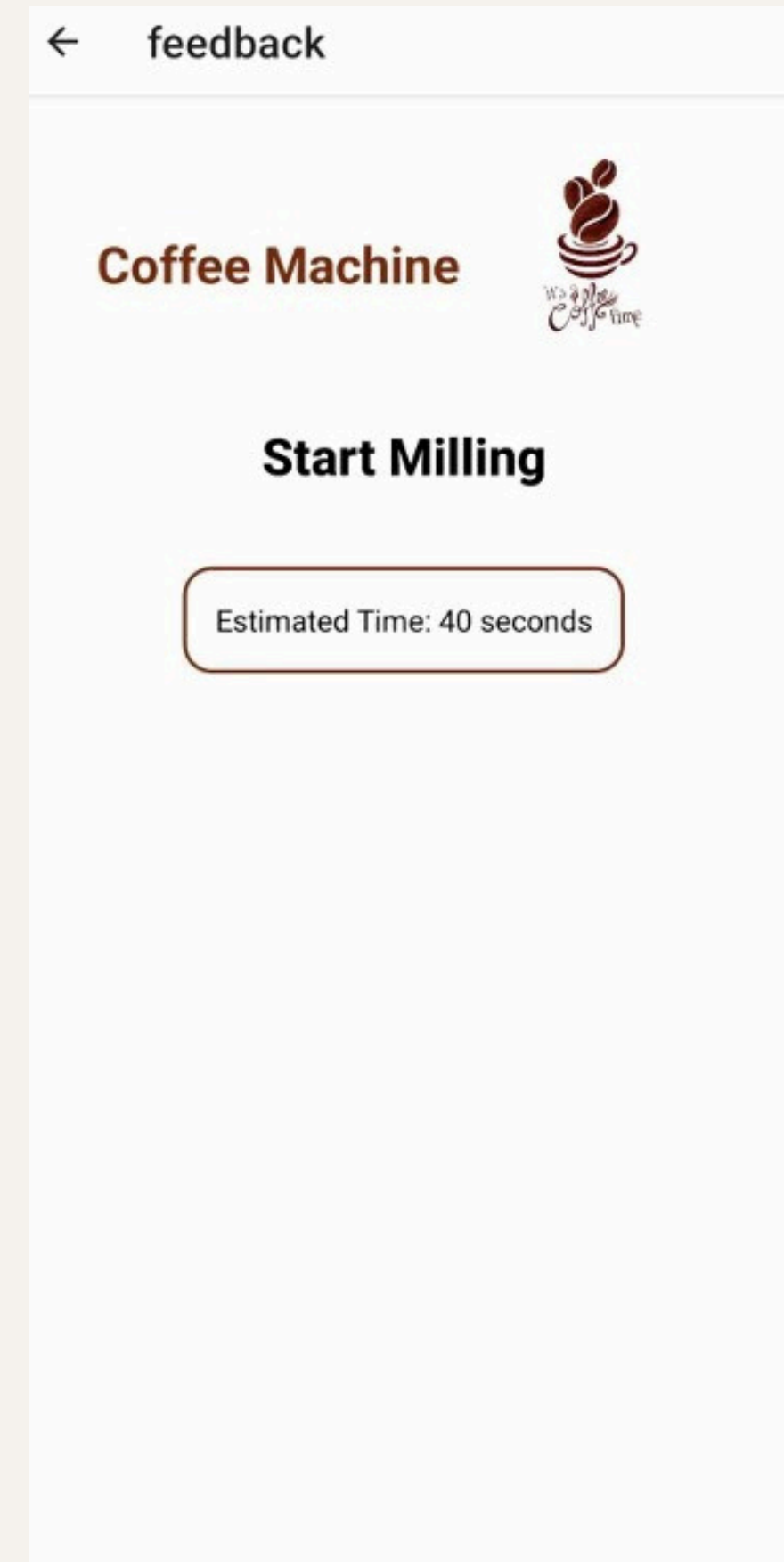
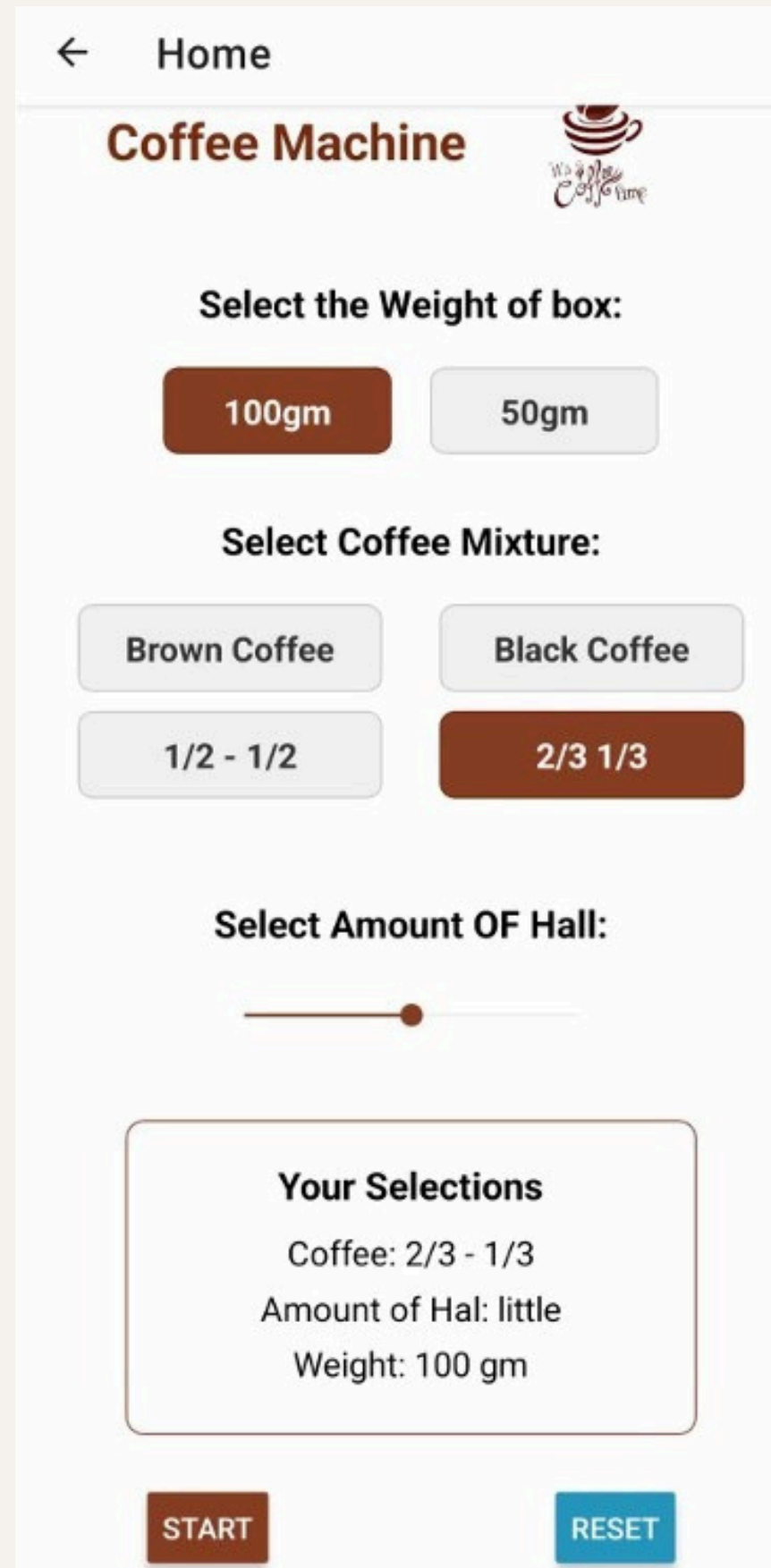
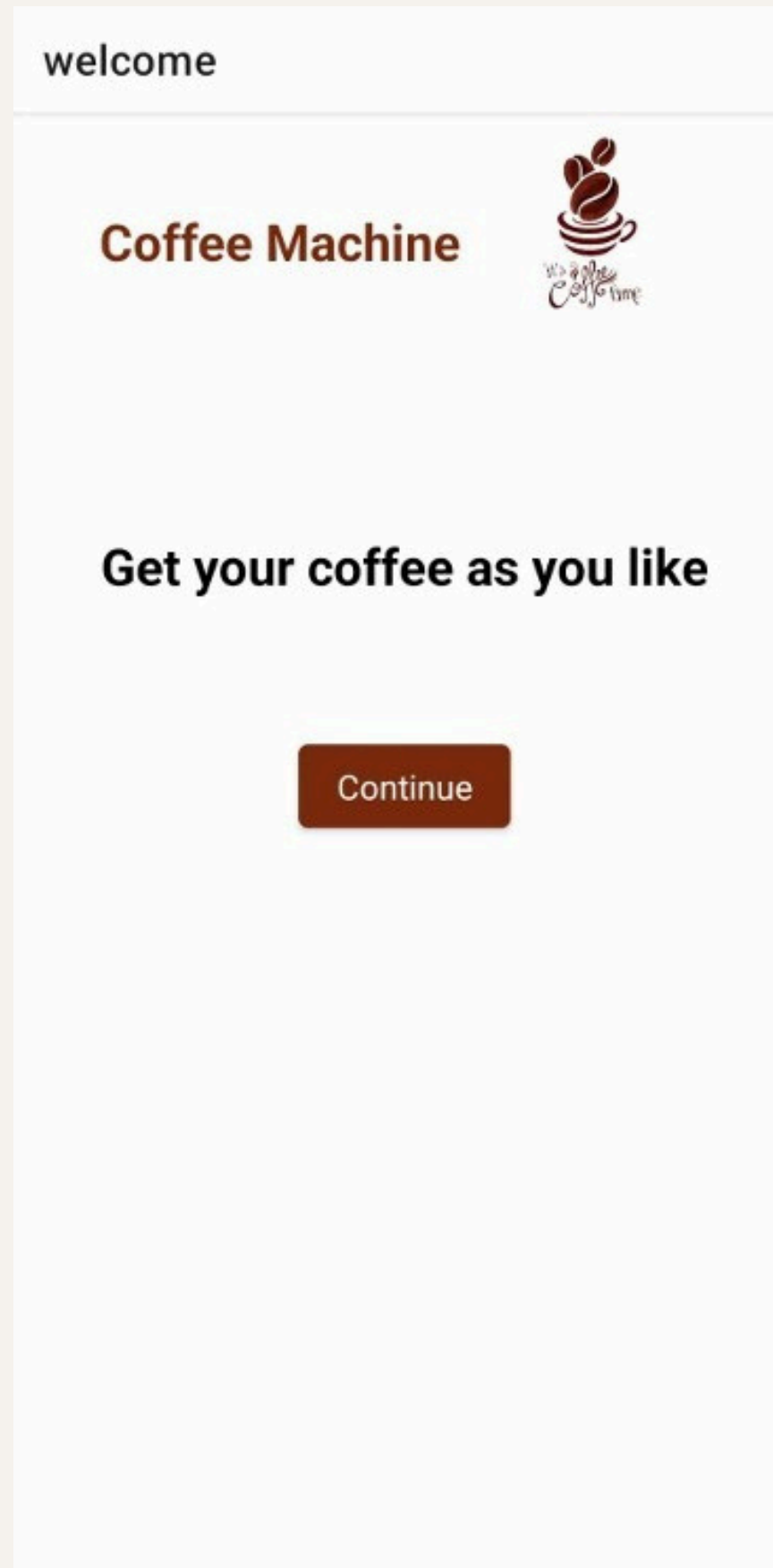
DC Motor



Relay 4-channel



MOBILE APPLICATION



CONSTRAINTS



Insufficient Mechanical Knowledge



Unavailability of components.

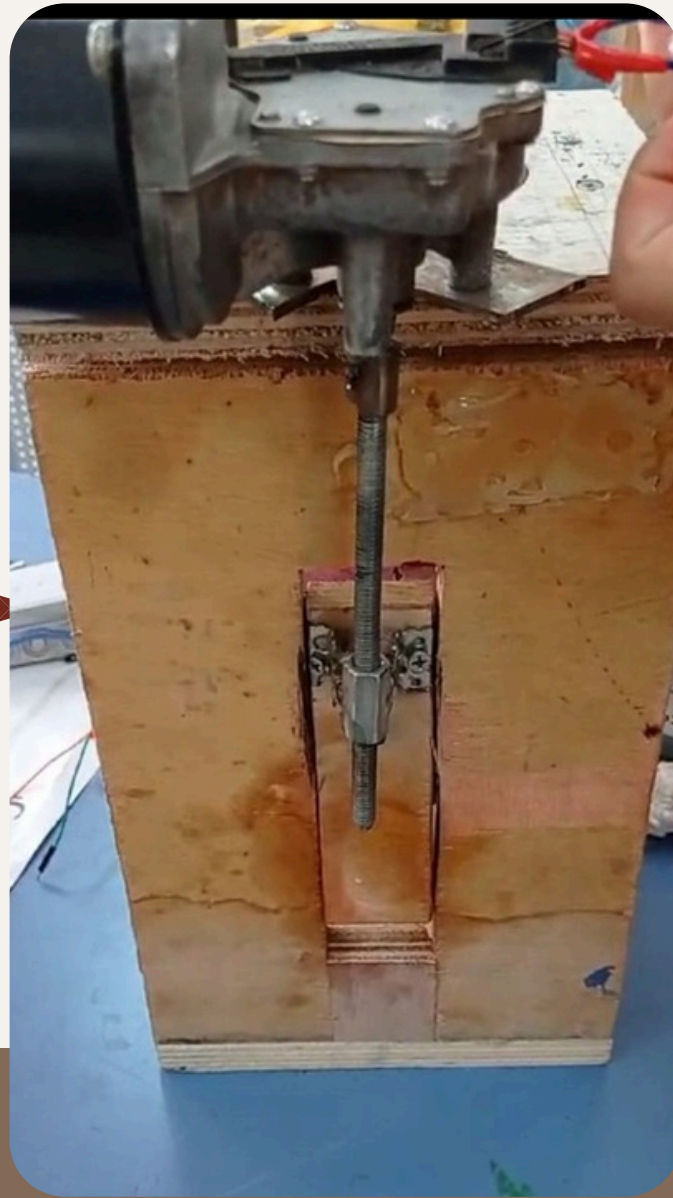


Cost



Lack Of Time

CONSTRAINTS



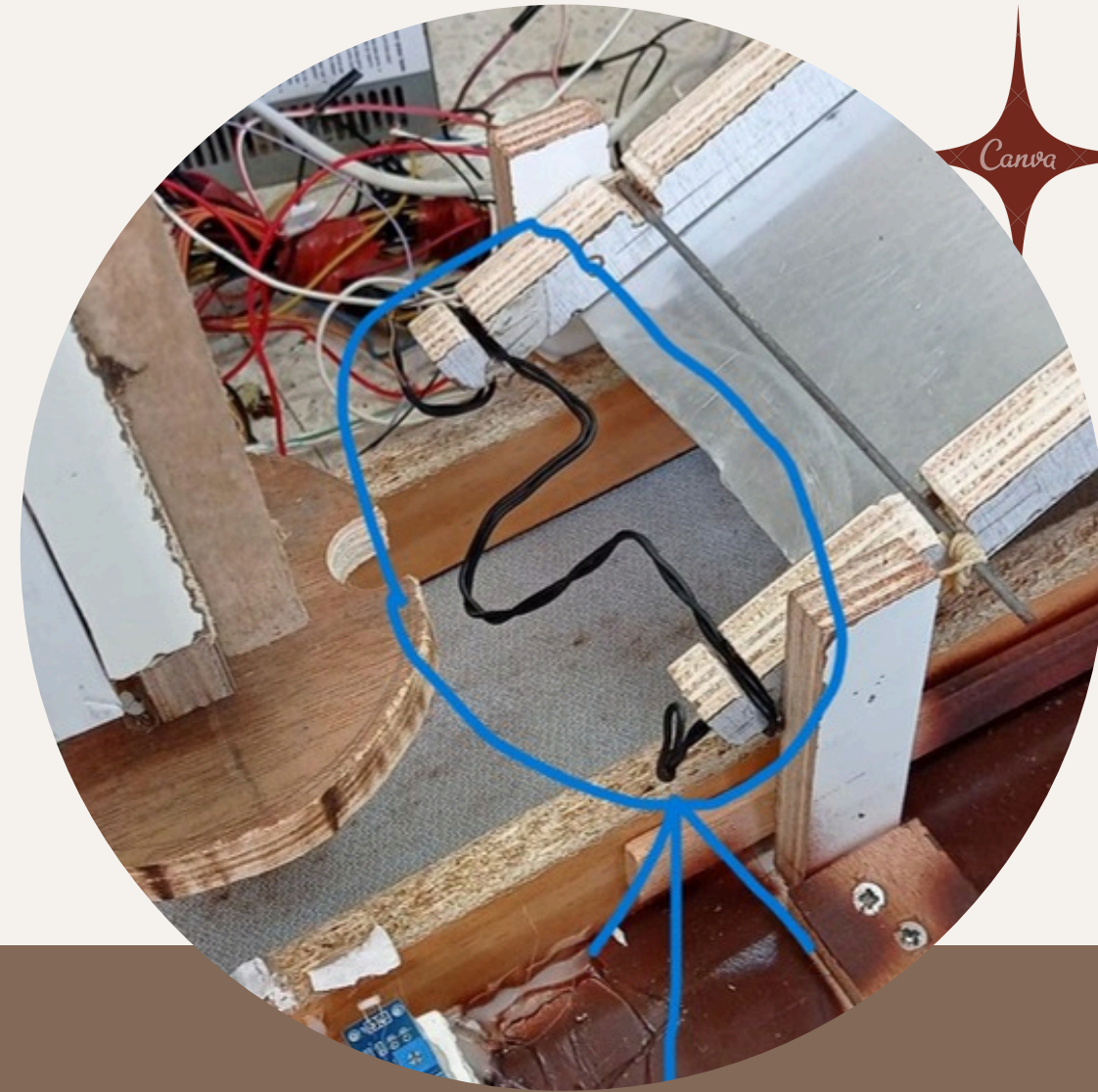
The first design of Grinding Stage



The last design of Grinding Stage



CONSTRAINTS



The first design of Lids Line

The last design of Lids Line



Adding more types of coffee.



Adding the weight sensor in the appropriate position.



Adding several sizes of box.



FINAL PRODUCT



Thank
You

