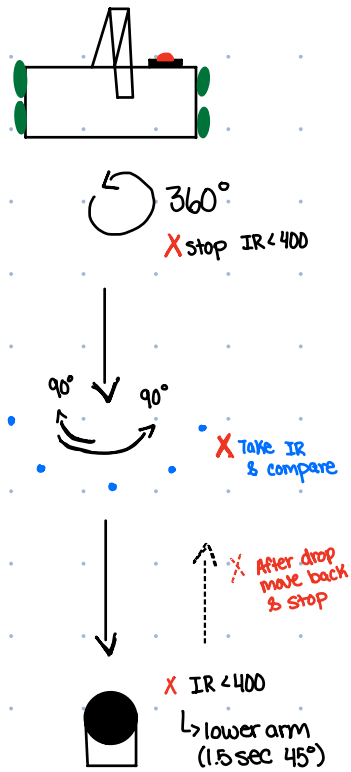
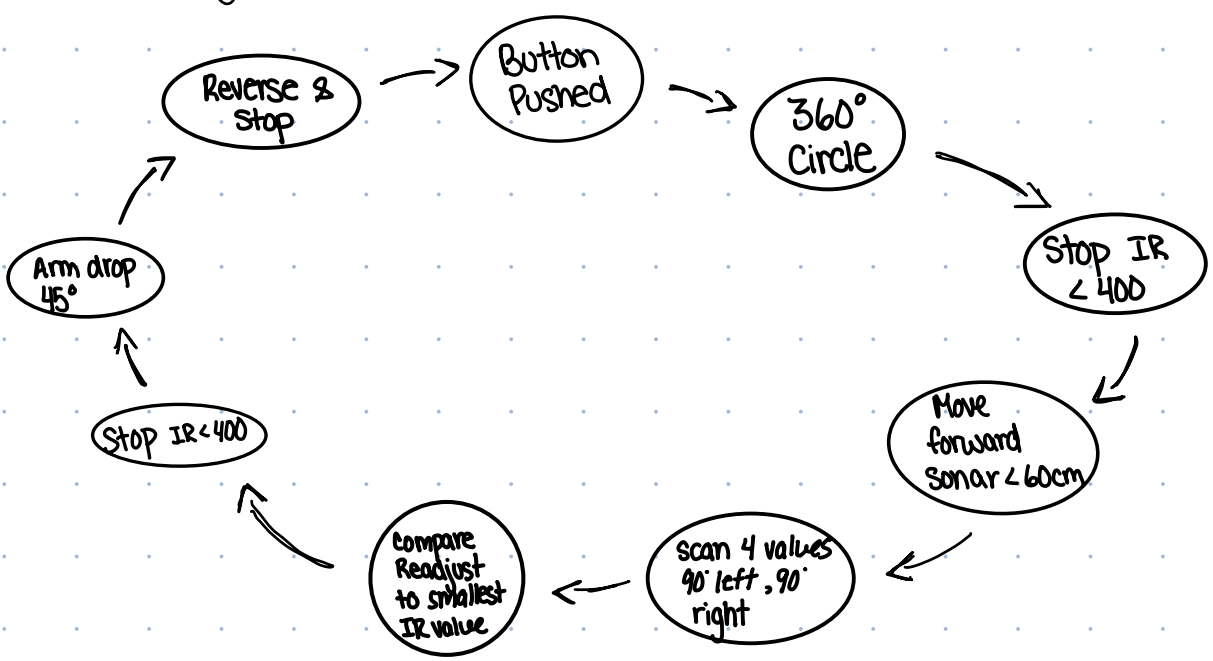


1. Button is pressed
2. Starts 360° revolution sensing IR
3. Stop when IR < 1000
4. Turn on red light & Move until sonar < 60cm
5. Stop
6. Scan take 2 IR values to the right & 2 values to the left
7. Compare the values
8. Position towards lowest value
9. Move forward until IR < 400
10. Stop
11. Lower arm 1.5 sec
12. Reverse away from target
13. Stop

FSM Diagram



Cost

motor without encoder $10 x3

Ultrasonic sensor $15

Housing $0.25

Infared photo transistor $0.50

Infrared LED $0.50

Limit switch $2.00 x2

Wheels $5 x2

Structural parts $2 x10

small parts $1 x50

differential gear system $10 x2

Bevel gears $10

Bipolar junction transistor $0.25

total: $160.50