Define parameters

Servo myservo;

#define echoPin 5

#define trigPin 4

long duration;

int distance\_cm;

int pos = 0;

Update angle and rotate servo motor

*pos+=1;*

*myservo.write(pos);*

Activating the ultrasonic sensor, reading data, and converting it to distance information

*digitalWrite(trigPin, LOW);*

*delayMicroseconds(2);*

*digitalWrite(trigPin, HIGH);*

*delayMicroseconds(10);*

*digitalWrite(trigPin, LOW);*

*duration = pulseIn(echoPin, HIGH);*

*distance\_cm = duration \* 0.034 / 2;*

Sending results through serial port

*Serial.print(pos);*

*Serial.print(",");*

*Serial.println(distance\_cm);*

Delay

*delay(50);*

i = i+1

Initialize

*Serial.begin(115200);*

*Serial.setTimeout(1);*

*pinMode(trigPin, OUTPUT);*

*pinMode(echoPin, INPUT);*

*myservo.attach(3);*

*Serial.println("Radar Start");*

False

True

False

True

Update angle and rotate servo motor

*Pos-=1;*

*myservo.write(pos);*

Activating the ultrasonic sensor, reading data, and converting it to distance information

*digitalWrite(trigPin, LOW);*

*delayMicroseconds(2);*

*digitalWrite(trigPin, HIGH);*

*delayMicroseconds(10);*

*digitalWrite(trigPin, LOW);*

*duration = pulseIn(echoPin, HIGH);*

*distance\_cm = duration \* 0.034 / 2;*

Sending results through serial port

*Serial.print(pos);*

*Serial.print(",");*

*Serial.println(distance\_cm);*

Delay

*delay(50);*

i = i-1

i = 180

i > 0?

i < 180?

i = 0

yReading ≥ 0

yReading < 0