

```
#include <Servo.h>
```

```
#define TRIG_PIN 47
```

```
#define ECHO_PIN 49
```

```
#define SERVO_PIN 51
```

```
Servo radarServo;
```

```
int angle = 0;
```

```
long duration;
```

```
int distance;
```

```
void setup() {  
  Serial.begin(9600);
```

```
  radarServo.attach(SERVO_PIN);
```

```
  pinMode(TRIG_PIN, OUTPUT);  
  pinMode(ECHO_PIN, INPUT);  
}
```

```
void loop() {  
  // Rotate from 0 to 180 degrees  
  for (angle = 0; angle <= 180; angle += 2) {  
    scan(angle);  
  }
```

```
  // Rotate back from 180 to 0 degrees  
  for (angle = 180; angle >= 0; angle -= 2) {  
    scan(angle);  
  }
```

```
}
```

```
void scan(int angle) {  
    radarServo.write(angle);  
    delay(30); // Wait for the servo to reach  
position
```

```
    // Trigger ultrasonic pulse  
    digitalWrite(TRIG_PIN, LOW);  
    delayMicroseconds(0);  
    digitalWrite(TRIG_PIN, HIGH);  
    delayMicroseconds(0);  
    digitalWrite(TRIG_PIN, LOW);
```

```
    duration = pulseIn(ECHO_PIN, HIGH);  
    distance = duration * 0.034 / 2;
```

```
    Serial.print("Angle: ");  
    Serial.print(angle);  
    Serial.print("°, Distance: ");  
    Serial.print(distance);
```

```
Serial.println(" cm");  
}
```