```
// INITIALISATION
#include <Servo.h>
Servo myservo;
int potpin = 0;
int val;
// MOTOR PINS
int pin_right_1 = 8;
int pin_right_2 = 10;
int pin_left_1 = 9;
int pin_left_2 = 11;
// ULTRASONIC SENSORS
const int ultrasonic_TrigPin = 1;
const int ultrasonic_TrigPin1 = 3;
const int ultrasonic_TrigPin2 = 5;
const int ultrasonic_EchoPin = 2;
const int ultrasonic_EchoPin1 = 4;
const int ultrasonic_EchoPin2 = 6;
int ultrasonic_Distance;
int ultrasonic_Duration;
int ultrasonic_Distance1;
int ultrasonic_Duration1;
int ultrasonic_Distance2;
int ultrasonic_Duration2;
int pinHigh = 13;
int count = 0;
boolean a;
// SETUP
```

```
void setup()
{
  Serial.begin(9600);
  myservo.attach(7);
  pinMode(pin_left_1, OUTPUT);
  pinMode(pin_right_1, OUTPUT);
  pinMode(pin_left_2, OUTPUT);
  pinMode(pin_right_2, OUTPUT);
  pinMode(ultrasonic_TrigPin, OUTPUT);
  pinMode(ultrasonic_TrigPin1, OUTPUT);
  pinMode(ultrasonic_TrigPin2, OUTPUT);
  pinMode(ultrasonic_EchoPin, INPUT);
  pinMode(ultrasonic_EchoPin1, INPUT);
  pinMode(ultrasonic_EchoPin2, INPUT);
  pinMode(pinHigh, OUTPUT);
  digitalWrite(pinHigh, HIGH);
}
// LOOP
void loop()
{
  readUltrasonicSensors();
  while (ultrasonic_Distance == 0||ultrasonic_Distance1 ==
0||ultrasonic_Distance2 == 0) {
    readUltrasonicSensors();
  }
   Decision_making();
    Serial.print(count);
    Serial.println();
```

```
  val = analogRead(potpin);
  val = map(val, 0, 800, 0, 180);
  myservo.write(val);
}
void Decision_making()
{
  if (ultrasonic_Distance1 > 35)
  {
    digitalWrite(pin_left_1, HIGH);
    digitalWrite(pin_right_2, LOW);
    digitalWrite(pin_left_2, LOW);
    digitalWrite(pin_right_1, HIGH);
  }
  else if ((count % 2) != 0)
  {
    a = false;
    if (!a)
    {
      count++;
    }
    digitalWrite(pin_left_1, LOW);
    digitalWrite(pin_left_2, HIGH);
    digitalWrite(pin_right_1, HIGH);
    digitalWrite(pin_right_2, LOW);
    Serial.println("Delay");
    delay(1300);
  }
```

```
  else if ((count % 2) == 0)
  {
    a = true;
    if (a)
    {
      count++;
    }
    digitalWrite(pin_left_1, HIGH);
    digitalWrite(pin_left_2, LOW);
    digitalWrite(pin_right_1, LOW);
    digitalWrite(pin_right_2, HIGH);
    delay(1300);
  }
  else if ((((ultrasonic_Distance1 < 35) && (ultrasonic_Distance < 35)) &&
(count >= 2)) || (((ultrasonic_Distance1 < 35) && (ultrasonic_Distance2 < 5))
&& (count >= 2)))
  {
    digitalWrite(pin_left_1, LOW);
    digitalWrite(pin_left_2, LOW);
    digitalWrite(pin_right_1, LOW);
    digitalWrite(pin_right_2, LOW);
  }
}

void readUltrasonicSensors()
{
  digitalWrite(ultrasonic_TrigPin, HIGH);
  delayMicroseconds(10);
```

```
  digitalWrite(ultrasonic_TrigPin, LOW);
  ultrasonic_Duration = pulseIn(ultrasonic_EchoPin, HIGH);
  ultrasonic_Distance = (ultrasonic_Duration / 2) / 29;
  Serial.print(ultrasonic_Distance);
  Serial.print("cm\t");
  digitalWrite(ultrasonic_TrigPin1, HIGH);
  delayMicroseconds(10);
  digitalWrite(ultrasonic_TrigPin1, LOW);
  ultrasonic_Duration1 = pulseIn(ultrasonic_EchoPin1, HIGH);
  ultrasonic_Distance1 = (ultrasonic_Duration1 / 2) / 29;
  Serial.print(ultrasonic_Distance1);
  Serial.print("cm\t");
  digitalWrite(ultrasonic_TrigPin2, HIGH);
  delayMicroseconds(10);
  digitalWrite(ultrasonic_TrigPin2, LOW);
  ultrasonic_Duration2 = pulseIn(ultrasonic_EchoPin2, HIGH);
  ultrasonic_Distance2 = (ultrasonic_Duration2 / 2) / 29;
  Serial.print(ultrasonic_Distance2);
  Serial.print("cm\t");
  Serial.println();
}
```