

```
int onepin = A0;
int twopin = A1;
int threepin = A2;
int fourpin = A3;
int fivepin = A4;
int oneout = 7;
int twoout = 8;
int threeout = 9;
int fourout = 10;
int signal = 13;
const int threshold = 200;
const int minimum = 800;
const int rl = 500;
```

```
void setup()
{
  Serial.begin(9600);
  pinMode(signal, OUTPUT);pinMode(oneout, OUTPUT);
  pinMode(twoout, OUTPUT); pinMode(threeout, OUTPUT);
  pinMode(fourout, OUTPUT);
  digitalWrite(signal, LOW);digitalWrite(oneout, LOW);
  digitalWrite(twoout, LOW);digitalWrite(threeout, LOW);
  digitalWrite(fourout, LOW);delay(1000);
  digitalWrite(signal, HIGH); delay(1000);digitalWrite(signal, LOW);
  delay(1000); digitalWrite(signal, HIGH);
}
```

```
void loop() {
  if(analogRead(onepin) >= threshold || analogRead(fivepin) >= threshold) forward();
  else if(analogRead(onepin) == minimum || analogRead(fivepin) == minimum) stop(); delay(50);
```

```

  if(analogRead(twopin) >= rl){
    while(analogRead(twopin) >= rl) right();
    while(analogRead(onepin) < minimum && analogRead(fivepin) < minimum); stop();delay(1000);}

```

```

  if(analogRead(threepin) >= rl){
    while(analogRead(threepin) >= rl) right();
    while(analogRead(onepin) < minimum && analogRead(fivepin) < minimum); stop();delay(1000);}

```

```

  if(analogRead(fourpin) >= rl){
    while(analogRead(fourpin) >= rl) left();
    while(analogRead(onepin) < minimum && analogRead(fivepin) < minimum); stop();delay(1000);}
  }

```

```
void forward(void)
{digitalWrite(oneout, HIGH);digitalWrite(twoout,LOW);
digitalWrite(threeout, HIGH);digitalWrite(fourout, LOW);}
void rev(void)
{digitalWrite(oneout, LOW);digitalWrite(twoout,HIGH);
digitalWrite(threeout, LOW);digitalWrite(fourout, HIGH);}

```

```
void stop(void)
{digitalWrite(oneout, LOW);digitalWrite(twoout,LOW);
digitalWrite(threeout, LOW);digitalWrite(fourout, LOW);}
void left(void)
{digitalWrite(oneout, LOW);digitalWrite(twoout,HIGH);
digitalWrite(threeout, HIGH);digitalWrite(fourout, LOW);}
void right(void)
{digitalWrite(oneout, HIGH);digitalWrite(twoout,LOW);
digitalWrite(threeout, LOW);digitalWrite(fourout, HIGH);}
```