#include <Servo.h> // Include servo library

int piezoPin = A4;

int pInput;

int ledPin = 0;

Servo servoRight;

Servo servoLeft;

int whiskPinL = 7;

int whiskPinR = 5;

int wInputL;

int wInputR;

void setup()

{

//pinMode(piezoPin, OUTPUT);

servoLeft.attach(13);

servoRight.attach(12);

servoLeft.writeMicroseconds(1500);

servoRight.writeMicroseconds(1500);

Serial.begin(9600);

Serial.println("setup");

pinMode(whiskPinL, INPUT);

pinMode(whiskPinR, INPUT);

// pinMode(piezoPin, INPUT);

pinMode(ledPin, OUTPUT);

}

void loop()

{

wInputL = digitalRead(whiskPinL);

wInputR = digitalRead(whiskPinR);

// Serial.println("Left: " + wInputL);

// Serial.println("Right: " + wInputR);

// pInput = analogRead(piezoPin);

// Serial.println(pInput);

// Serial.println(analogRead(piezoPin));

digitalWrite(ledPin, LOW);

forward();

if(wInputL == 0 && wInputR == 0)

{

//tone(piezoPin, 440, 1000);

backward();

delay(1000);

turnRight();

}

else if (wInputL == 0)

{

//tone(piezoPin, 587, 1000);

backward();

delay(1000);

turnLeft();

}

else if(wInputR == 0)

{

//tone(piezoPin, 830, 1000);

backward();

delay(1000);

turnRight();

}

delay(500);

}

else

{

digitalWrite(ledPin, HIGH);

}

void turnRight()

{

servoLeft.writeMicroseconds(1700);

servoRight.writeMicroseconds(1700);

}

void turnLeft()

{

servoLeft.writeMicroseconds(1300);

servoRight.writeMicroseconds(1300);

}

void forward()

{

servoLeft.writeMicroseconds(1700);

servoRight.writeMicroseconds(1300);

}

void backward()

{

servoLeft.writeMicroseconds(1300);

servoRight.writeMicroseconds(1700);

}