Obstacle avoidance Robot car code :

#include <AFMotor.h>

#include <Servo.h>

#define Speed 250

#define Trig A0

#define Echo A1

#define spoint 90

int distance;

int Left;

int Right;

int L = 0;

int R = 0;

Servo servo;

AF\_DCMotor M1(1);

AF\_DCMotor M2(2);

AF\_DCMotor M3(3);

AF\_DCMotor M4(4);

void setup() {

pinMode(Trig, OUTPUT);

pinMode(Echo, INPUT);

servo.attach(10);

start();

M1.setSpeed(Speed);

M2.setSpeed(Speed);

M3.setSpeed(Speed);

M4.setSpeed(Speed);

}

void loop() {

distance = ultrasonic();

if (distance <= 12) {

Stop();

backward();

delay(100);

Stop();

L = leftsee();

servo.write(spoint);

delay(500);

R = rightsee();

servo.write(spoint);

if (L < R) {

turnleft();

delay(500);

Stop();

delay(200);

} else if (L > R) {

turnright();

delay(500);

Stop();

delay(200);

}

} else {

forward();

}

}

void forward() {

M1.run(FORWARD);

M2.run(FORWARD);

M3.run(FORWARD);

M4.run(FORWARD);

}

void backward() {

M1.run(BACKWARD);

M2.run(BACKWARD);

M3.run(BACKWARD);

M4.run(BACKWARD);

}

void turnleft() {

M1.run(FORWARD);

M2.run(FORWARD);

M3.run(BACKWARD);

M4.run(BACKWARD);

}

void turnright() {

M1.run(BACKWARD);

M2.run(BACKWARD);

M3.run(FORWARD);

M4.run(FORWARD);

}

void Stop() {

M1.run(RELEASE);

M2.run(RELEASE);

M3.run(RELEASE);

M4.run(RELEASE);

}

int leftsee() {

servo.write(20);

delay(500);

Left = ultrasonic();

return Left;

}

int rightsee() {

servo.write(150);

delay(500);

Right = ultrasonic();

return Right;

}

int ultrasonic() {

digitalWrite(Trig, LOW);

delayMicroseconds(4);

digitalWrite(Trig, HIGH);

delayMicroseconds(10);

digitalWrite(Trig, LOW);

long t = pulseIn(Echo, HIGH);

long cm = t / 29 / 2; //time convert distance

return cm;

}

void start() {

delay(1500);

for (int a = 0; a < 4; a++) {

servo.write(spoint);

delay(50);

servo.write(40);

delay(50);

servo.write(90);

delay(50);

servo.write(spoint);

}}