Simple

A diagram of a circuit board

Description automatically generated

A screenshot of a program

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A screenshot of a computer program

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A computer screen shot of a computer code

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/\* Obstacle Avoiding Robot Using Ultrasonic Sensor and Arduino NANO

\* Circuit Digest(www.circuitdigest.com)

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int trigPin = 9; // trig pin of HC-SR04

int echoPin = 10; // Echo pin of HC-SR04

int revleft4 = 4; //REVerse motion of Left motor

int fwdleft5 = 5; //ForWarD motion of Left motor

int revright6 = 6; //REVerse motion of Right motor

int fwdright7 = 7; //ForWarD motion of Right motor

long duration, distance;

void setup() {

delay(random(500,2000)); // delay for random time

Serial.begin(9600);

pinMode(revleft4, OUTPUT); // set Motor pins as output

pinMode(fwdleft5, OUTPUT);

pinMode(revright6, OUTPUT);

pinMode(fwdright7, OUTPUT);

pinMode(trigPin, OUTPUT); // set trig pin as output

pinMode(echoPin, INPUT); //set echo pin as input to capture reflected waves

}

void loop() {

digitalWrite(trigPin, LOW);

delayMicroseconds(2);

digitalWrite(trigPin, HIGH); // send waves for 10 us

delayMicroseconds(10);

duration = pulseIn(echoPin, HIGH); // receive reflected waves

distance = duration / 58.2; // convert to distance

delay(10);

// If you dont get proper movements of your robot then alter the pin numbers

if (distance > 19)

{

digitalWrite(fwdright7, HIGH); // move forward

digitalWrite(revright6, LOW);

digitalWrite(fwdleft5, HIGH);

digitalWrite(revleft4, LOW);

}

if (distance < 18)

{

digitalWrite(fwdright7, LOW); //Stop

digitalWrite(revright6, LOW);

digitalWrite(fwdleft5, LOW);

digitalWrite(revleft4, LOW);

delay(500);

digitalWrite(fwdright7, LOW); //movebackword

digitalWrite(revright6, HIGH);

digitalWrite(fwdleft5, LOW);

digitalWrite(revleft4, HIGH);

delay(500);

digitalWrite(fwdright7, LOW); //Stop

digitalWrite(revright6, LOW);

digitalWrite(fwdleft5, LOW);

digitalWrite(revleft4, LOW);

delay(100);

digitalWrite(fwdright7, HIGH);

digitalWrite(revright6, LOW);

digitalWrite(revleft4, LOW);

digitalWrite(fwdleft5, LOW);

delay(500);

}

}