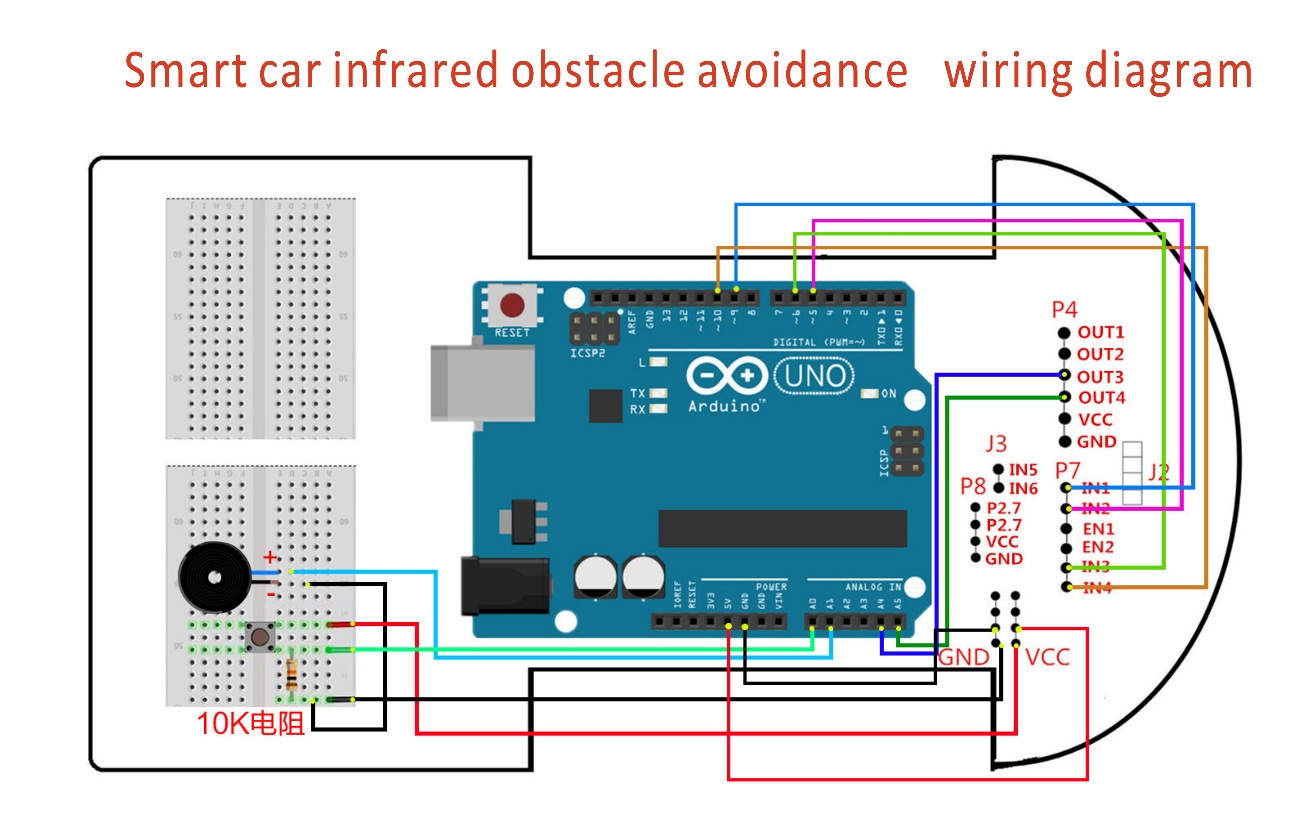
Carro esquiva obstáculos infrarrojo

1. Funcionamiento



1. Código

int Left\_motor\_back=9; //(IN1)

int Left\_motor\_go=5; //(IN2)

int Right\_motor\_go=6; //(IN3)

int Right\_motor\_back=10; //(IN4)

const int SensorRight\_2 = A4; //(P3.5 OUT4)

const int SensorLeft\_2 = A5; //(P3.4 OUT3)

int SL\_2;

int SR\_2;

void setup()

{

pinMode(Left\_motor\_go,OUTPUT);

pinMode(Left\_motor\_back,OUTPUT);

pinMode(Right\_motor\_go,OUTPUT);

pinMode(Right\_motor\_back,OUTPUT);

pinMode(key,INPUT);

pinMode(beep,OUTPUT);

pinMode(SensorRight\_2, INPUT);

pinMode(SensorLeft\_2, INPUT);

}

void run()

{

digitalWrite(Right\_motor\_go,HIGH);

digitalWrite(Right\_motor\_back,LOW);

analogWrite(Right\_motor\_go,200);

analogWrite(Right\_motor\_back,0);

digitalWrite(Left\_motor\_go,HIGH);

digitalWrite(Left\_motor\_back,LOW);

analogWrite(Left\_motor\_go,200);

analogWrite(Left\_motor\_back,0);

}

void brake(int time)

{

digitalWrite(Right\_motor\_go,LOW);

digitalWrite(Right\_motor\_back,LOW);

digitalWrite(Left\_motor\_go,LOW);

digitalWrite(Left\_motor\_back,LOW);

delay(time \* 100);

}

void left()

{

digitalWrite(Right\_motor\_go,HIGH);

digitalWrite(Right\_motor\_back,LOW);

analogWrite(Right\_motor\_go,175);

analogWrite(Right\_motor\_back,0);

digitalWrite(Left\_motor\_go,LOW);

digitalWrite(Left\_motor\_back,LOW);

analogWrite(Left\_motor\_go,0);

analogWrite(Left\_motor\_back,0);

}

void spin\_left(int time)

{

digitalWrite(Right\_motor\_go,HIGH);

digitalWrite(Right\_motor\_back,LOW);

analogWrite(Right\_motor\_go,250);

analogWrite(Right\_motor\_back,0);

digitalWrite(Left\_motor\_go,LOW);

digitalWrite(Left\_motor\_back,HIGH);

analogWrite(Left\_motor\_go,0);

analogWrite(Left\_motor\_back,100);

delay(time \* 100);

}

void right()

{

digitalWrite(Right\_motor\_go,LOW);

digitalWrite(Right\_motor\_back,LOW);

analogWrite(Right\_motor\_go,0);

analogWrite(Right\_motor\_back,0);

digitalWrite(Left\_motor\_go,HIGH);

digitalWrite(Left\_motor\_back,LOW);

analogWrite(Left\_motor\_go,175);

analogWrite(Left\_motor\_back,0);

}

void spin\_right(int time)

{

digitalWrite(Right\_motor\_go,LOW);

digitalWrite(Right\_motor\_back,HIGH);

analogWrite(Right\_motor\_go,0);

analogWrite(Right\_motor\_back,100);

digitalWrite(Left\_motor\_go,HIGH);

digitalWrite(Left\_motor\_back,LOW);

analogWrite(Left\_motor\_go,100);

analogWrite(Left\_motor\_back,0);

delay(time \* 100);

}

void back(int time)

{

digitalWrite(Right\_motor\_go,LOW);

digitalWrite(Right\_motor\_back,HIGH);

analogWrite(Right\_motor\_go,0);

analogWrite(Right\_motor\_back,100);

digitalWrite(Left\_motor\_go,LOW);

digitalWrite(Left\_motor\_back,HIGH);

analogWrite(Left\_motor\_go,0);

analogWrite(Left\_motor\_back,150);

delay(time \* 100);

}

void loop()

{

while(1)

{

SR\_2 = digitalRead(SensorRight\_2);

SL\_2 = digitalRead(SensorLeft\_2);

if (SL\_2 == HIGH&&SR\_2==HIGH)

run();

else if (SL\_2 == HIGH & SR\_2 == LOW)

left();

else if (SR\_2 == HIGH & SL\_2 == LOW)

right();

else

back(15);

}

}