

```
#define trigger 5
#define echo 4
#define Relay 6

float time=0,distance=0;

void setup()
{
  Serial.begin(9600);

  pinMode(trigger,OUTPUT);
  pinMode(echo,INPUT);
  pinMode(Relay,OUTPUT);

  delay(2000);
}

void loop()
{
  measure_distance();

  if(distance<5)
  {
    digitalWrite(Relay,HIGH);
  }
  else
  {
    digitalWrite(Relay,LOW);
  }

  delay(500);
}

void measure_distance()
{
  digitalWrite(trigger,LOW);
  delayMicroseconds(2);
  digitalWrite(trigger,HIGH);
  delayMicroseconds(10);
  digitalWrite(trigger,LOW);
  delayMicroseconds(2);
  time=pulseIn(echo,HIGH);

  distance=time*200/20000;
}
```