

```
int verde =2;
int ambar =4;
int rojo =7;
int echode =8;
int trigde =9;
long distanciade;
```

```
void setup()
{
  pinMode(2, OUTPUT);
  pinMode(4, OUTPUT);
  pinMode(7, OUTPUT);
  pinMode(echode, INPUT);
  pinMode(trigde, OUTPUT);
  Serial.begin(9600);
}
```

```
void loop()
{
  while(true)
  {
    sensor();
    Serial.println(distanciade);

    if (distanciade<= 10)
    {
      semaforo();
    }

    if (distanciade >= 11)
```

```
{  
    nosemaforo();  
}  
}
```

```
void nosemaforo()  
{  
    digitalWrite(2, HIGH);  
    digitalWrite(4, HIGH);  
    digitalWrite(7, HIGH);  
}
```

```
void semaforo()  
{  
    digitalWrite(2, HIGH);  
    digitalWrite(4, HIGH);  
    digitalWrite(7, HIGH);  
    digitalWrite(2, LOW);  
    delay(5000);  
    digitalWrite(2, HIGH);  
  
    digitalWrite(4, LOW);  
    delay(3000);  
    digitalWrite(4, HIGH);  
  
    digitalWrite(7, LOW);  
    delay(5000);
```

```
digitalWrite(7, HIGH);  
}
```

```
void sensor()  
{  
    long duracion;  
    digitalWrite(trigde, LOW);  
    delayMicroseconds(4);  
    digitalWrite(trigde, HIGH);  
    delayMicroseconds(19);  
    digitalWrite(trigde, LOW);  
    duracion=pulseIn(echode, HIGH);  
    duracion=duracion/2;  
    distanciade=duracion/29;  
}
```