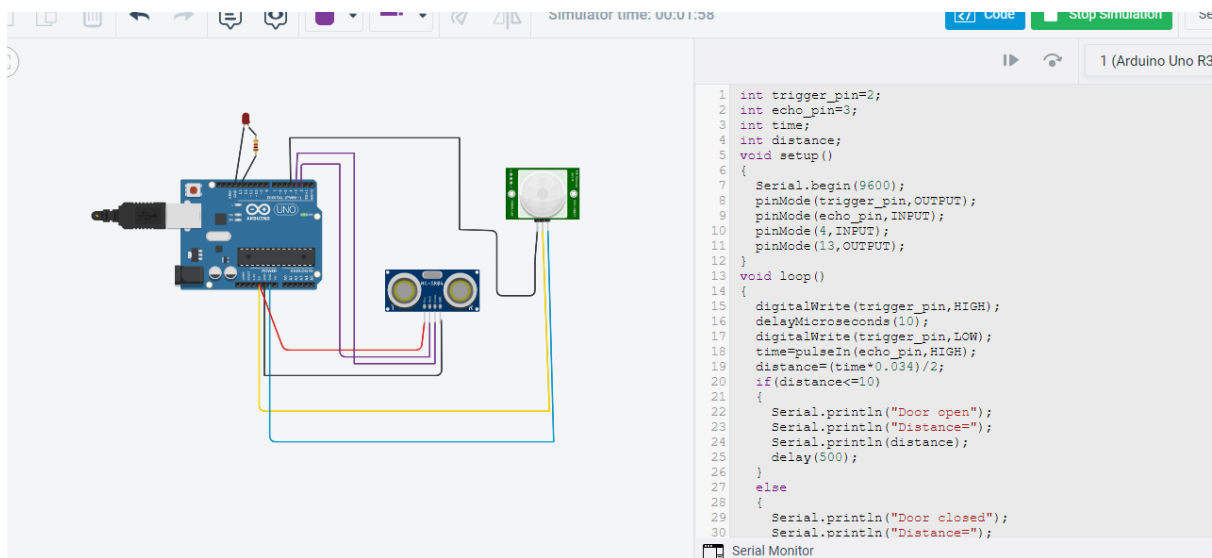


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CIRCUIT



CODE:

```
int trigger_pin=2;
```

```
int echo_pin=3;
```

```
int time;
```

```
int distance;
```

```
void setup()
```

```
{
```

```
  Serial.begin(9600);
```

```
  pinMode(trigger_pin,OUTPUT);
```

```
  pinMode(echo_pin,INPUT);
```

```
  pinMode(4,INPUT);
```

```
  pinMode(13,OUTPUT);
```

```
}
```

```
void loop()
```

```
{  
  
  digitalWrite(trigger_pin,HIGH);  
  
  delayMicroseconds(10);  
  
  digitalWrite(trigger_pin,LOW);  
  
  time=pulseIn(echo_pin,HIGH);  
  
  distance=(time*0.034)/2;  
  
  if(distance<=10)  
  {  
  
    Serial.println("Door open");  
  
    Serial.println("Distance=");  
  
    Serial.println(distance);  
  
    delay(500);  
  }  
  
  else  
  
  {  
  
    Serial.println("Door closed");  
  
    Serial.println("Distance=");  
  
    Serial.println(distance);  
  
    delay(500);  
  
    int p=digitalRead(4);  
  
    if(p)  
    {  
  
      digitalWrite(13,HIGH);  
  
      Serial.println("motion detected");  
  
    }  
  
    else  
  
    {  
  
      digitalWrite(13,LOW);  
  
      Serial.println("not detected");  
  
    }  
  }  
}
```

}

}