

```
#include <Servo.h>
```

```
int dist = 0;
```

```
long USDsens(int triggerPin, int echoPin)
```

```
{  
    pinMode(triggerPin, OUTPUT);  
    digitalWrite(triggerPin, LOW);  
    delayMicroseconds(2);  
    digitalWrite(triggerPin, HIGH);  
    delayMicroseconds(10);  
    digitalWrite(triggerPin, LOW);  
    pinMode(echoPin, INPUT);  
    return pulseIn(echoPin, HIGH);  
}
```

```
Servo servo_8;
```

```
void setup()
```

```
{  
    servo_8.attach(8, 500, 2500);  
    pinMode(2, INPUT);  
    pinMode(12, OUTPUT);  
    pinMode(A0, INPUT);  
    pinMode(9, OUTPUT);  
}
```

```
void loop()
```

```
{
```

```
dist = 0.01723 * USDsens(7, 7);  
if (dist <= 100) {  
    servo_8.write(90);  
    delay(1000);  
} else {  
    servo_8.write(0);  
    delay(1000);  
}  
if (digitalRead(2) == 1) {  
    digitalWrite(12, HIGH);  
    delay(1000);  
} else {  
    digitalWrite(12, LOW);  
    delay(1000);  
}  
if (analogRead(A0) > 200) {  
    digitalWrite(9, HIGH);  
    delay(1000);  
} else {  
    digitalWrite(9, LOW);  
    delay(1000);  
}  
}
```

