



Code:

```
// C++ code
#include <Servo.h>

int servoPin = 4;
int greenPin=10;
int yellowPin=11;
int redPin=12;
int sensor=3;
bool pedestrianWaiting = false;
// create a Servo object
Servo servo1;
unsigned long previousMillisG = 0;
const long ginterval = 7000;
const long rinterval = 4000;
const long yinterval = 2000;
int ledState = HIGH;
int pos; // loop variable
void setup()
{
  pinMode(greenPin,OUTPUT);
  pinMode(yellowPin,OUTPUT);
  pinMode(redPin,OUTPUT);
  servo1.attach(servoPin);
  digitalWrite(greenPin,1);
  pinMode(sensor, INPUT);
  servo1.write(0);
}

void loop()
{
  pedestrianWaiting = digitalRead(sensor);
  unsigned long currentMillis = millis();
  if(pedestrianWaiting && (currentMillis-previousMillisG>=ginterval))
  {

    // save the last time you blinked the LED

    digitalWrite(greenPin,0);
    ledState=LOW;
    digitalWrite(yellowPin,1);
    delay(yinterval);
    digitalWrite(yellowPin,LOW);
```

```
digitalWrite(redPin,1);  
servo1.write(90);
```

```
}
```

```
if(!pedestrianWaiting ||(millis()-previousMillisG>=(ginterval+yinterval+rinterval)))
```

```
{
```

```
  digitalWrite(redPin,0);  
  digitalWrite(yellowPin,1);  
  delay(yinterval);  
  digitalWrite(yellowPin,LOW);  
  digitalWrite(greenPin,1);  
  servo1.write(0);  
  previousMillisG = millis();
```

```
}
```

```
}
```