```
int sensePin1=A0;
int sensePin2=A1;
int RED=6;
int YELLOW=5;
int GREEN=3;
int POWER=8;


void setup() {
Serial.begin(9600);
pinMode(RED,OUTPUT);
pinMode(YELLOW,OUTPUT);
pinMode(GREEN,OUTPUT);
pinMode(POWER,OUTPUT);

}
enum SIGNALSTATES
{
  ST_GREEN,
  ST_RED1,
  ST_RED2,
  ST_YELLOW,
};
SIGNALSTATES signalState=ST_GREEN;

void loop() {
int valA1=analogRead(sensePin1);
int valA2=analogRead(sensePin2);
Serial.println(valA1);
Serial.println(valA2);
delay(200);

switch(signalState)
{
  case ST_GREEN:
  signalgreen(valA1, valA2);
  break;
  case ST_RED1:
  signalred1(valA1, valA2);
  break;
  case ST_RED2:
  signalred2(valA1, valA2);
  break;
```

```
  case ST_YELLOW:
  signalyellow(valA1, valA2);
  break;
}
}

void signalgreen(int valA1, int valA2){
  digitalWrite(GREEN,LOW);
  digitalWrite(RED,HIGH);
  digitalWrite(YELLOW,HIGH);
  digitalWrite(POWER,HIGH);

  if (valA1<500 && valA2>500){
    signalState=ST_RED1;
  }
  else if (valA1>500 && valA2<500){
    signalState=ST_RED2;
  }
}

void signalred1(int valA1, int valA2){
  digitalWrite(GREEN,HIGH);
  digitalWrite(RED,LOW);
  digitalWrite(YELLOW,HIGH);
  digitalWrite(POWER,HIGH);

  if (valA1>500 && valA2<500){
    signalState=ST_YELLOW;
  }
}

void signalred2(int valA1, int valA2){
  digitalWrite(GREEN,HIGH);
  digitalWrite(RED,LOW);
  digitalWrite(YELLOW,HIGH);
  digitalWrite(POWER,HIGH);

  if (valA1<500 && valA2>500){
    signalState=ST_YELLOW;
  }

}
```

```
void signalyellow(int valA1, int valA2){
  digitalWrite(GREEN,HIGH);
  digitalWrite(RED,HIGH);
  digitalWrite(YELLOW,LOW);
  digitalWrite(POWER,HIGH);
  delay(5000);

  if (valA1>500 && valA2>500){
    signalState=ST_GREEN;
  }
}
```