CODE FOR SMART PUBLIC AUTOMATION SYSTEM

```
int a = 0, b = 0, p;
int v, i, n, s, B, k, d, c;
void setup() {

  pinMode(A0, INPUT);   //ldr
  pinMode(8, INPUT);    //ir1
  pinMode(9, INPUT);    //ir2
  pinMode(7, INPUT);    //ir3
  pinMode(2, INPUT);    //ir4

  pinMode(6, OUTPUT);   //led1
  pinMode(10, OUTPUT);  //led2
  pinMode(11, OUTPUT);  //led3
  pinMode(5, OUTPUT);   //led4

  pinMode(12, OUTPUT);  //relay
  Serial.begin(9600);
}

void loop() {

LDR:
  p = analogRead(A0);
  Serial.println(p);

  if (p > 700) {
    digitalWrite(12, LOW);
ir1:
    int IRVALUE1 = digitalRead(8);
    Serial.println(IRVALUE1);
    if (IRVALUE1 == 0) {
      analogWrite(6, 100);
      v = digitalRead(9);
      if (v == 0) {
        analogWrite(10, 100);
      }
      if (v == 1) {
        analogWrite(10, 0);
      }
      i = digitalRead(7);
      if (i == 0) {
        analogWrite(11, 100);
      }
      if (i == 1) {
        analogWrite(11, 0);
      }
      //d
      c = digitalRead(2);
      if (c == 0) {
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        analogWrite(5, 100);
      }
      if (c == 1) {
        analogWrite(5, 0);
      }

      if (b == 500) {
        analogWrite(6, 1000);
        p = analogRead(A0);
        if (p < 100) {
          goto LDR;
        }
      }
      b++;
      a = 1;
      Serial.println(b);
      p = analogRead(A0);
      if (p < 100) {
        goto LDR;
      }
      goto ir1;
    }
    b = 0;
    if (a == 1) {
      analogWrite(6, 80);
      delay(250);
      analogWrite(6, 75);
      delay(100);
      analogWrite(6, 50);
      delay(50);
      analogWrite(6, 0);
    }
    a = 0;
ir2:
    int IRVALUE2 = digitalRead(9);
    Serial.println(IRVALUE2);
    if (IRVALUE2 == 0) {
      analogWrite(10, 100);
      v = digitalRead(8);
      if (v == 0) {
        analogWrite(6, 100);
      }
      if (v == 1) {
        analogWrite(6, 0);
      }
      i = digitalRead(7);
      if (i == 0) {
        analogWrite(11, 100);
      }
      if (i == 1) {
        analogWrite(11, 0);
      }
      c = digitalRead(2);
      if (c == 0) {
        analogWrite(5, 100);
      }
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      if (c == 1) {
        analogWrite(5, 0);
      }

      if (b == 500) {
        analogWrite(10, 1000);
        p = analogRead(A0);
        if (p < 100) {
          goto LDR;
        }
        goto ir2;
      }
      b++;

      a = 1;
      Serial.println(b);
      p = analogRead(A0);
      if (p < 100) {
        goto LDR;
      }
      goto ir2;
    }
    b = 0;
    if (a == 1) {
      analogWrite(10, 80);
      delay(250);
      analogWrite(10, 75);
      delay(100);
      analogWrite(10, 50);
      delay(50);
      analogWrite(10, 0);
    }
    a = 0;

ir3:
    int IRVALUE3 = digitalRead(7);
    Serial.println(IRVALUE3);
    if (IRVALUE3 == 0) {
      analogWrite(11, 100);
      v = digitalRead(8);
      if (v == 0) {
        analogWrite(6, 100);
      }
      if (v == 1) {
        analogWrite(6, 0);
      }
      i = digitalRead(9);
      if (i == 0) {
        analogWrite(10, 100);
      }
      if (i == 1) {
        analogWrite(10, 0);
      }
      c = digitalRead(2);
      if (c == 0) {
        analogWrite(5, 100);
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      }
      if (c == 1) {
        analogWrite(5, 0);
      }

      if (b == 500) {
        analogWrite(11, 1000);
        p = analogRead(A0);
        if (p < 100) {
          goto LDR;
        }
        goto ir3;
      }
      b++;

      a = 1;
      Serial.println(b);
      p = analogRead(A0);
      if (p < 100) {
        goto LDR;
      }
      goto ir3;
    }
    b = 0;
    if (a == 1) {
      analogWrite(11, 80);
      delay(250);
      analogWrite(11, 75);
      delay(100);
      analogWrite(11, 50);
      delay(50);
      analogWrite(11, 0);
    }
    a = 0;

    // for ir4

ir4:
    int IRVALUE4 = digitalRead(2);
    Serial.println(IRVALUE4);
    if (IRVALUE4 == 0) {
      analogWrite(5, 100);
      v = digitalRead(8);
      if (v == 0) {
        analogWrite(6, 100);
      }
      if (v == 1) {
        analogWrite(6, 0);
      }
      i = digitalRead(9);
      if (i == 0) {
        analogWrite(10, 100);
      }
      if (i == 1) {
        analogWrite(10, 0);
      }
```

```
      c = digitalRead(7);
      if (c == 0) {
        analogWrite(11, 100);
      }
      if (c == 1) {
        analogWrite(11, 0);
      }
      if (b == 500) {
        analogWrite(5, 1000);
        p = analogRead(A0);
        if (p < 100) {
          goto LDR;
        }
        goto ir4;
      }
      b++;

      a = 1;
      Serial.println(b);
      p = analogRead(A0);
      if (p < 100) {
        goto LDR;
      }
      goto ir4;
    }
    b = 0;
    if (a == 1) {
      analogWrite(5, 80);
      delay(250);
      analogWrite(5, 75);
      delay(100);
      analogWrite(5, 50);
      delay(50);
      analogWrite(5, 0);
    }
    a = 0;

    goto LDR;
  }



  digitalWrite(12, HIGH);
  analogWrite(10, 0);
  analogWrite(11, 0);
  analogWrite(6, 0);
    analogWrite(5, 0);
  a = 0;
}
```