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#include <Servo.h> // include Servo library

// 180 horizontal MAX
Servo horizontal; // horizontal servo

int servoh = 180; // 90; // stand horizontal servo
int servohLimitHigh = 175;
int servohLimitLow = 5;

// 65 degrees MAX
Servo vertical; // vertical servo

int servov = 45; // 90; // stand vertical servo
int servovLimitHigh = 60;
int servovLimitLow = 1;

// LDR pin connections
// name = analogpin;

int ldrlt = 0; //LDR top left - BOTTOM LEFT <--- BDG
int ldrrt = 1; //LDR top right - BOTTOM RIGHT
int ldrlt = 2; //LDR down left - TOP LEFT
int ldrrt = 3; //ldr down right - TOP RIGHT

void setup(){
  Serial.begin(9600);
  horizontal.attach(8);
  vertical.attach(9);
  horizontal.write(180);
  vertical.write(45);
  delay(3000);
}

void loop() {
  int lt = analogRead(ldrlt); // top left
  int rt = analogRead(ldrrt); // top right
  int ld = analogRead(ldrlt); // down left
  int rd = analogRead(ldrrt); // down right

  int dtime = 10; int tol = 90; // dtime=diffirence time, tol=toleransi

  int avt = (lt + rt) / 2; // average value top
  int avd = (ld + rd) / 2; // average value down
  int avl = (lt + ld) / 2; // average value left
  int avr = (rt + rd) / 2; // average value right
  int dvert = avt - avd; // check the diffirence of up and down
  int dhoriz = avl - avr; // check the diffirence og left and rigt

  Serial.print(avt);
  Serial.print(" ");
  Serial.print(avd);
  Serial.print(" ");
  Serial.print(avl);
  Serial.print(" ");
  Serial.print(avr);
  Serial.print(" ");
  Serial.print(dtime);
  Serial.print(" ");

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Serial.print(tol);
Serial.println(" ");
if (-1*tol > dvert || dvert > tol) // check if the diffirence is in the
tolerance else change vertical angle
{
    if (avt > avd)
    {
        servov = ++servov;
        if (servov > servovLimitHigh)
        {
            servov = servovLimitHigh;
        }
    }

    else if (avt < avd)
    {
        servov= --servov;
        if (servov < servovLimitLow)
        {
            servov = servovLimitLow;
        }
    }
    vertical.write(servov);
}

if (-1*tol > dhoriz || dhoriz > tol) // check if the diffirence is in the
tolerance else change horizontal angle
{
    if (avl > avr)
    {
        servoh = --servoh;
        if (servoh < servohLimitLow)
        {
            servoh = servohLimitLow;
        }
    }

    else if (avl < avr)
    {
        servoh = ++servoh;
        if (servoh > servohLimitHigh)
        {
            servoh = servohLimitHigh;
        }
    }

    else if (avl = avr)
    {
        delay(5000);
    }
    horizontal.write(servoh);
}
Serial.print(" ");
Serial.print(servoh);
Serial.print(" ");
Serial.print(servov);
Serial.print(" ");
delay(dtime);

```

