Solar Tracking System

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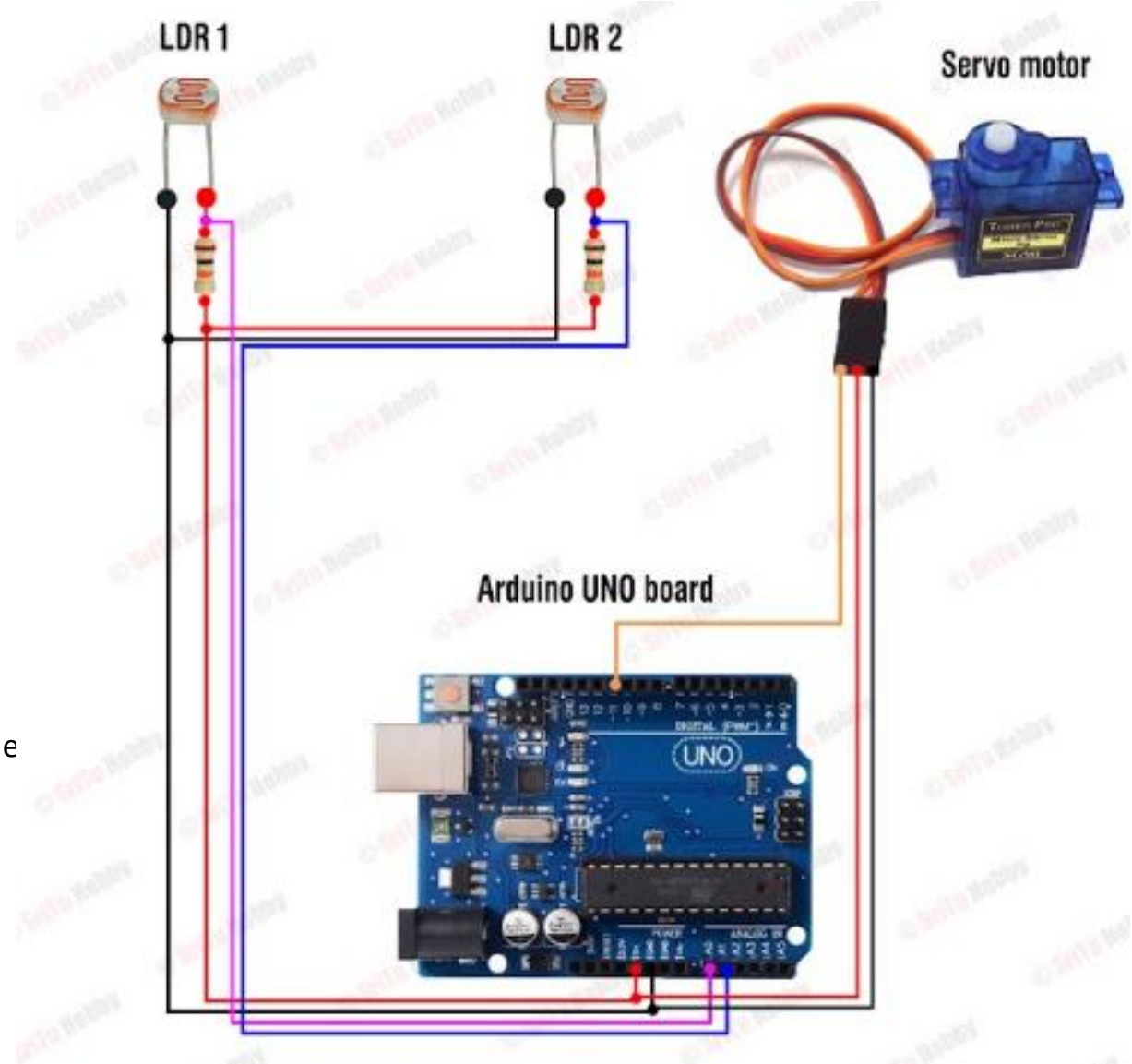
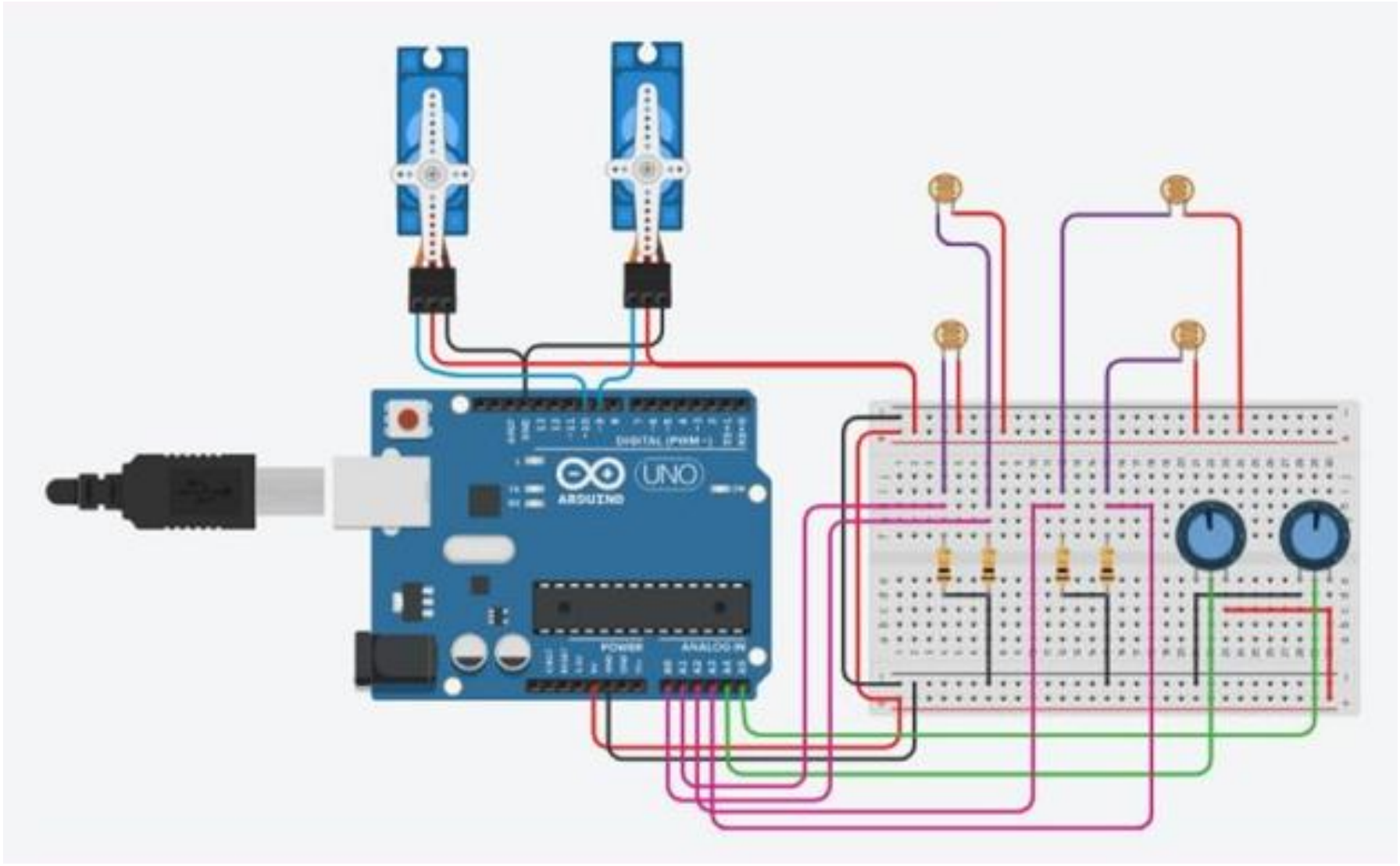
```
#include <Servo.h>
#define LDR1 A0
#define LDR2 A1
#define error 10
int Spoint =  90;
Servo servo;

void setup() {
servo.attach(11);
servo.write(Spoint);
delay(1000);
}

void loop() {
  int ldr1 = analogRead(LDR1);
  int ldr2 = analogRead(LDR2);
  int value1 = abs(ldr1 - ldr2);
  int value2 = abs(ldr2 - ldr1);
  if ((value1 <= error) || (value2 <= e
  } else {
    if (ldr1 > ldr2) {
      Spoint = --Spoint;
    }
    if (ldr1 < ldr2) {
      Spoint = ++Spoint;
    }
  }
  servo.write(Spoint);
  delay(80);
}
```

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```
#include <Servo.h>
Servo horizontal; // horizontal servo
int servoh = 180;
int servohLimitHigh = 175;
int servohLimitLow = 5;
// 65 degrees MAX
Servo vertical; // vertical servo
int servov = 45;
int servovLimitHigh = 60;
int servovLimitLow = 1;
int ldrlt = A0; //LDR top left - BOTTOM LEFT <--- BDG
int ldrrt = A2; //LDR top rigt - BOTTOM RIGHT
int ldrld = A1; //LDR down left - TOP LEFT
int ldrrd = A3; //ldr down rigt - TOP RIGHT

void setup(){
horizontal.attach(9);
vertical.attach(10);
horizontal.write(180);
vertical.write(45);
delay(2500);
}
void loop() {
int lt = analogRead(ldrlt); // top left
int rt = analogRead(ldrrt); // top right
int ld = analogRead(ldrld); // down left
int rd = analogRead(ldrrd); // 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
```

```
if (-1*tol > dvert || dvert > tol)
 {
 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);
 }
 delay(dtime);
 }
```