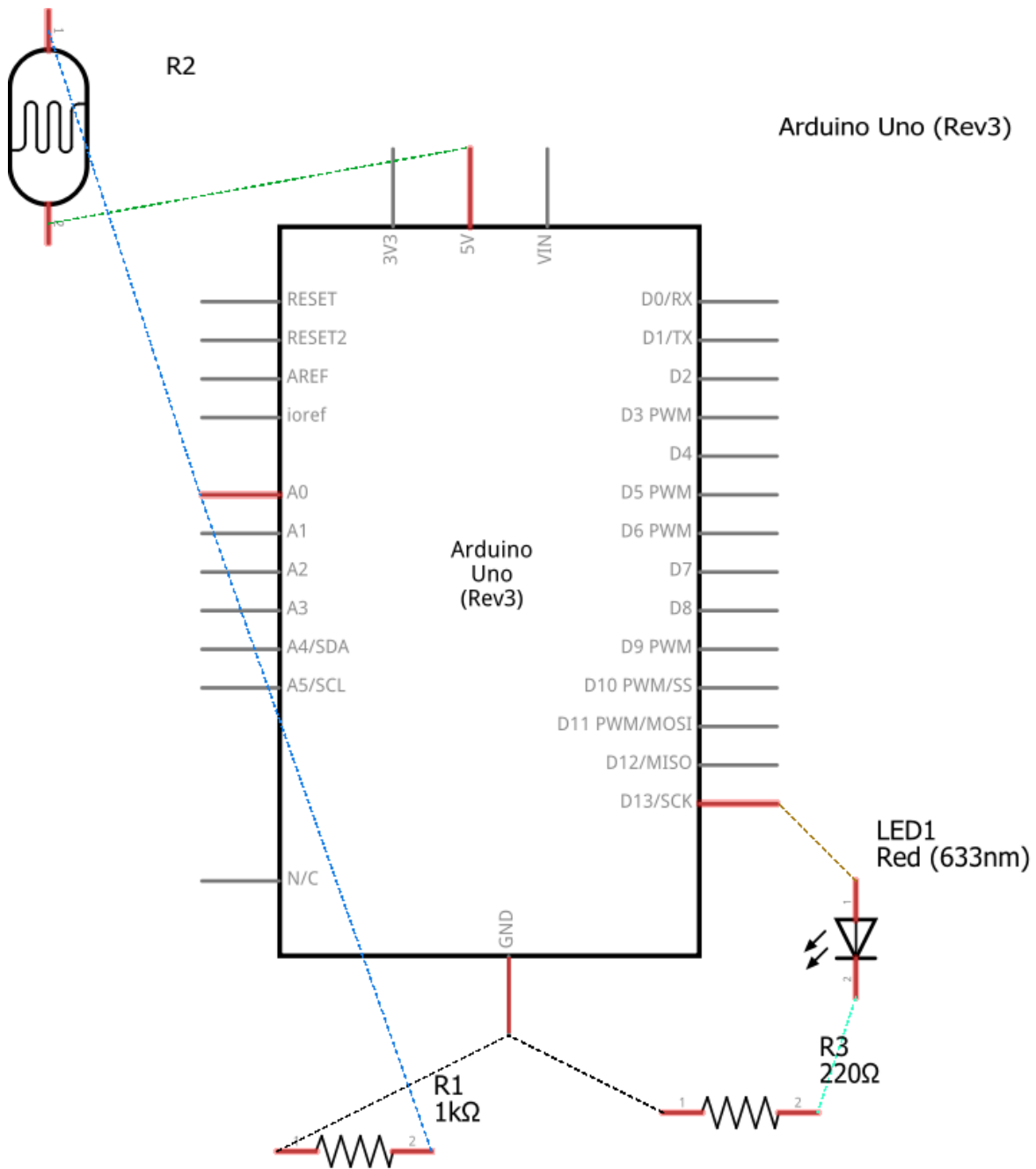


Jonne Kaajalahti

Lesson 4 raportti

Piirilevydiagrammi, A



fritzing

Koodi, A

```
// set pin numbers and variables:
const int ldrPin = A0;          // value of ldr sensor Pin
const int ledPin = 13;          // the number of the LED pin
int ldrReading;                 // raw reading from the ldr sensor

void setup() {
  pinMode(ledPin, OUTPUT);      // initialize the LED pin as an output
  pinMode(ldrPin, INPUT);       // initialize the ldr sensor pin as an input
  Serial.begin(9600);           // initialize serial port
}

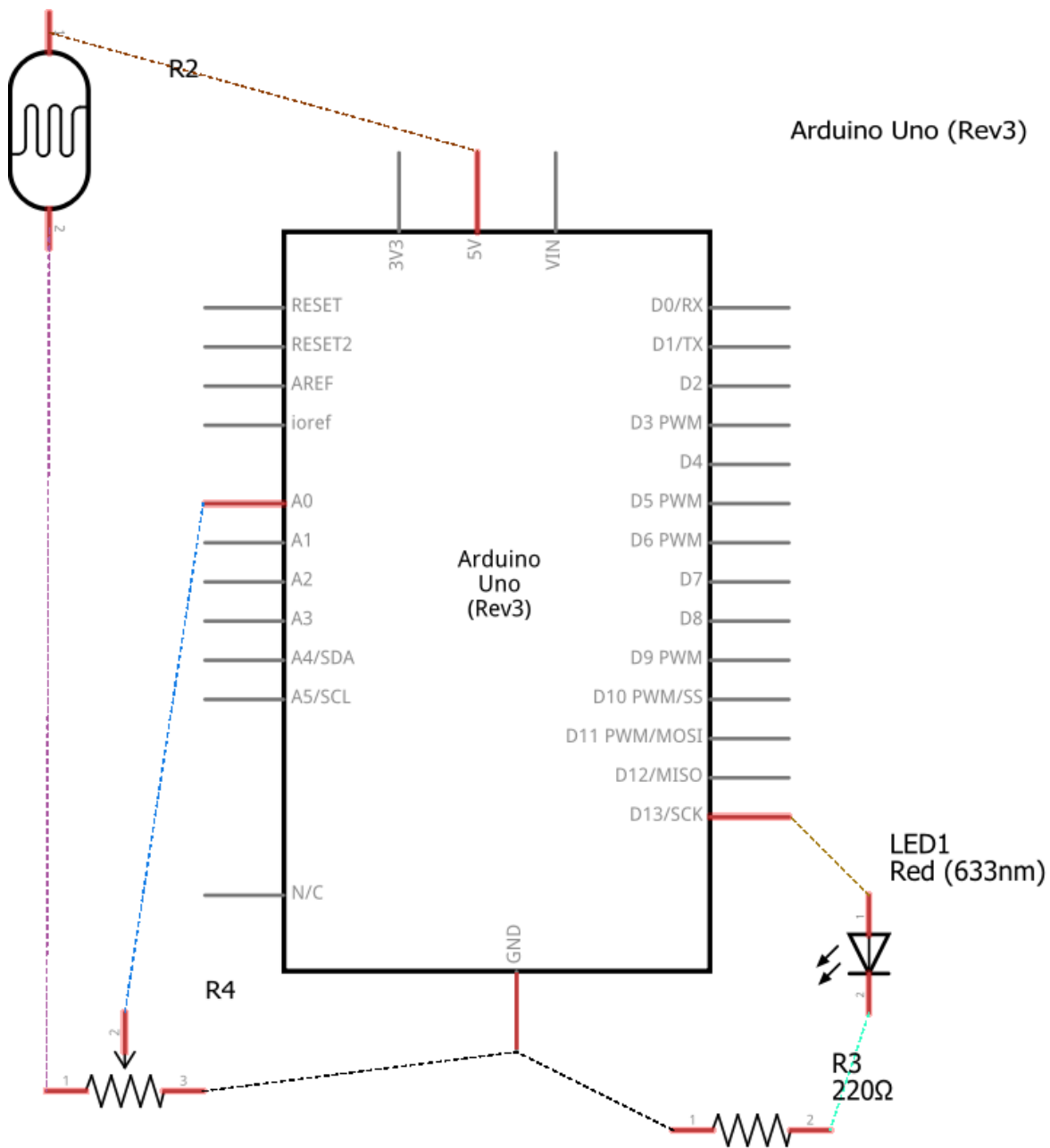
void loop() {
  ldrReading = analogRead(ldrPin); // set raw reading from the sensor to a variable
  Serial.println(ldrReading);       // print the raw values to serial console

  /*
   * if the sensors reading is under 500; keep the led off
   * if it's over 500; turn the led on
   */

  if (ldrReading < 500)
  {
    digitalWrite(ledPin, LOW);
  }
  else if (ldrReading > 500)
  {
    digitalWrite(ledPin, HIGH);
  }
}
```

LED valo oli päällä aina kun sensoriin osui valoa, LED meni pois päältä, kun sensori oli esimerkiksi varjon alla.

Piirilevydiagrammi, B



Koodi, B

```
// set pin numbers:
const int ldrPin = A0;           // value of ldr sensor Pin
const int ledPin = 13;          // the number of the LED pin
int ldrReading;                  // raw reading from the ldr sensor
```

```

void setup() {
  pinMode(ledPin, OUTPUT);    // initialize the LED pin as an output
  pinMode(ldrPin, INPUT);     // initialize the ldr sensor pin as an input
  Serial.begin(9600);         // initialize serial port
}

void loop() {
  ldrReading = analogRead(ldrPin); // set raw reading from the sensor to a variable
  Serial.println(ldrReading);      // print the raw values to serial console

  /*
   * if the sensors reading is under 20; keep the led off
   * if it's over 65; turn the led on
   */

  if (ldrReading < 20)
  {
    digitalWrite(ledPin, LOW);
  }
  else if (ldrReading > 65)
  {
    digitalWrite(ledPin, HIGH);
  }
}

```

Säädettävä resistori mahdollisti muodostamaan tietyn arvovälin ldr-sensorin raa'alle datalle, jonka avulla lediä pystyi kontrolloimaan valon avulla tarkemmin.