Light Sensor (Photoresistor) With Arduino in Tinker cad.

Identify the photoresistor, LED, resistors, and wires connected to the Arduino in the Tinker cad Circuits work plane.

Drag an Arduino Uno and breadboard from the components panel to the work plane, next to the existing circuit.

Connect breadboard power (+) and ground (-) rails to Arduino 5V and ground (GND), respectively, by clicking to create wires.

Extend power and ground rails to their respective buses on the opposite edge of the breadboard (optional for this circuit but good common practice).

Plug the LED into two different breadboard rows so that the cathode (negative, shorter leg) connects to one leg of a resistor (anywhere from 100-1K ohms is fine). The resistor can go in either orientation because resistors aren't polarized, unlike LEDs, which must be connected in a certain way to function.

Connect other resistor leg to ground.

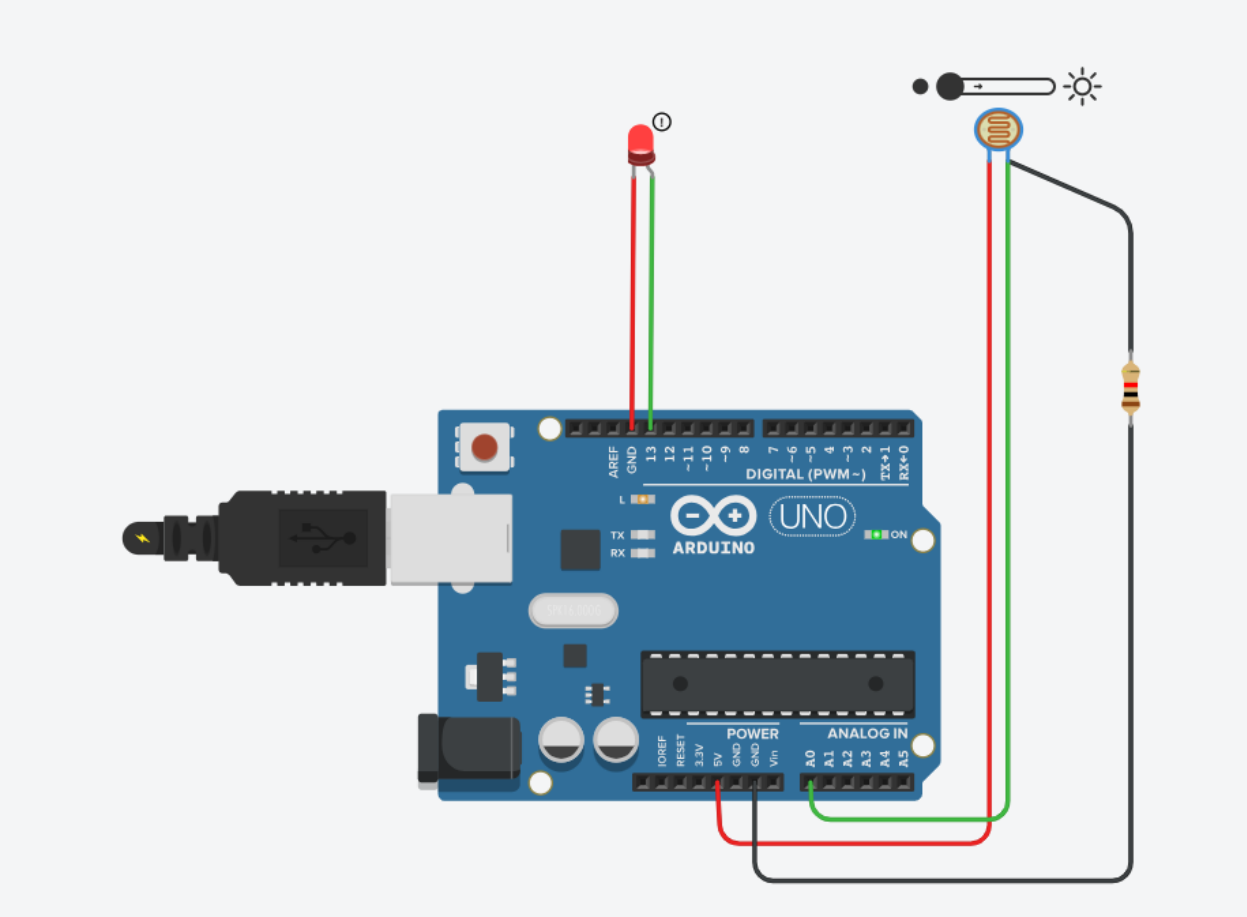
Wire up the LED anode (positive, longer leg) to Arduino pin 13.

Drag a photoresistor from the components panel to your breadboard, so its legs plug into two different rows.

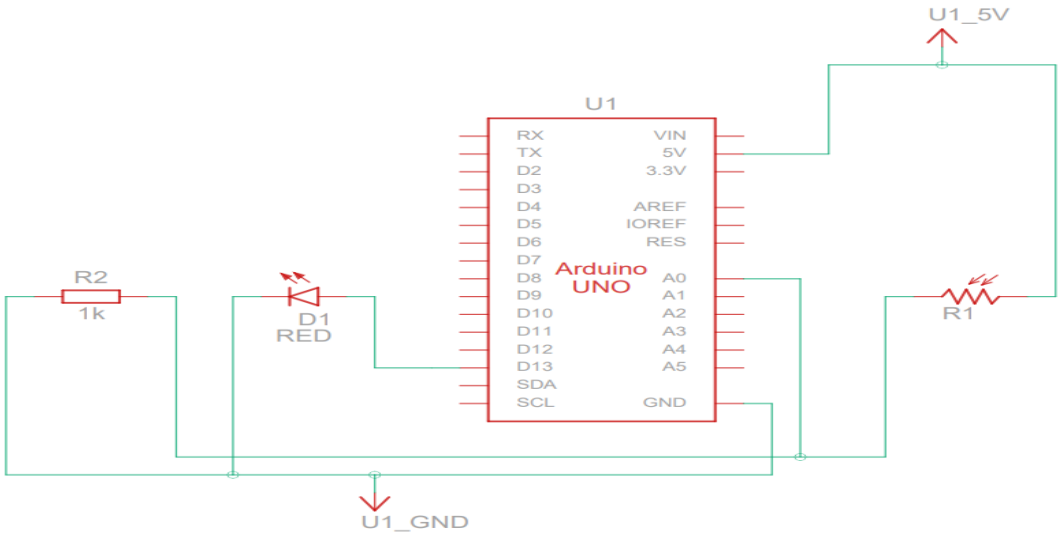
Click to create a wire connecting one photoresistor leg to power.

Connect the the other leg to Arduino analog pin A0.

Drag a resistor from the components panel to connect the photoresistor leg connected to A0 with ground, and adjust its value to 4.7k ohms.



Schematic View:



```
const int LEDPin=13;
const int LDRPin=A0;
void setup()
{
  Serial.begin(9600);
  pinMode(LEDPin,OUTPUT);
  pinMode(LDRPin,INPUT);
}
void loop()
{
  int LDRStatus=analogRead(LDRPin);
  if(LDRStatus<=500)
  {
    digitalWrite(LEDPin,HIGH);
    Serial.print("Current Light Intensity Value is -");
    Serial.println(LDRStatus);
  }
  else
  {
    digitalWrite(LEDPin,LOW);
    Serial.print("Current Light Intensity Value is -");
    Serial.println(LDRStatus);
  }
}
```