

Exercise:

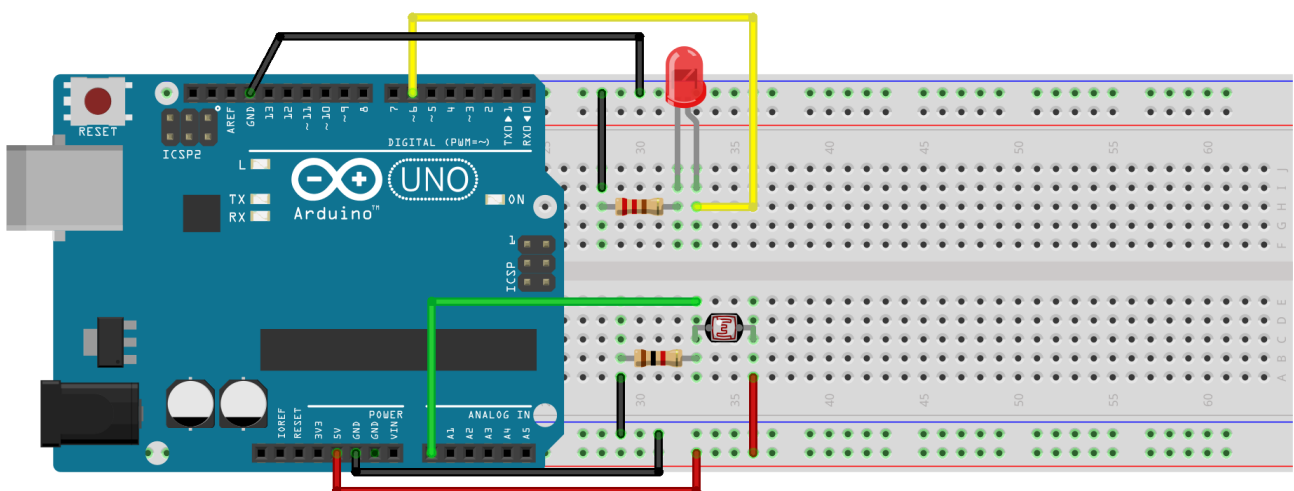
Build a circuit that lights an LED when it is sufficiently dark in a room. Demonstrate the circuit by covering the photoresistor to simulate darkness.

Turn in a video demonstration of the circuit in action. Show the behavior of the system with the photoresistor uncovered and with the photoresistor covered.

Arduino sketch:

```
const int led = 6;  
int brightness = 0;  
int treshold = 220;  
int light = 0;  
  
void setup() {  
  pinMode(led, OUTPUT); // LED pin  
  pinMode(A0, INPUT); // LDR pin  
}  
  
void loop() {  
  brightness = (analogRead(A0));  
  if (brightness > treshold){  
    light=0;  
  }  
  else light = 1;  
  digitalWrite(led, light);  
}
```

Wiring schematics:



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