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: