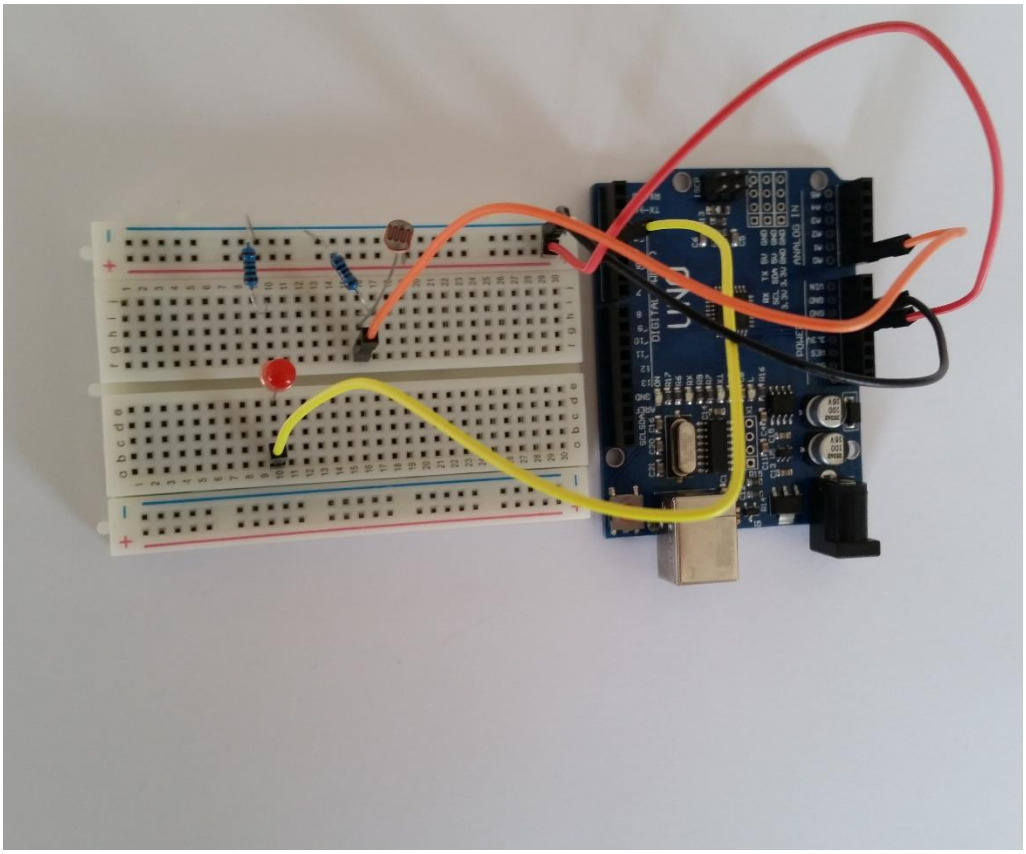
GoldSTEM_Lesson_9_Dimmable_LED with photo resistor

For this experiment uses a new component a photo resistor and a new configuration

The Photo Resistor

A photoresistor or light-dependent resistor (LDR) or photocell is a light-controlled variable resistor. The resistance of a photoresistor decreases with increasing incident light intensity; in other words, it exhibits photoconductivity.



Wiring the circuit

Red LED 1 Anode long lead e10

Red LED 1 Cathode short lead f10

R1 Resistor 1K, j10 to - rail

R2 Resistor 1K, i16 to – rail

R3 Photoresistor h16 to + rail

Red jumper + rail to UNO POWER +5
Black jumper - rail to UNO POWER GND
Orange jumper f15 to UNO ANALOG IN A0
Yellow jumper a10 to UNO DIGITAL PWM3

Notes
Gnd input led off
+5 input Led on
Total dark 1   .03v
Ambient 79   1.5v
Flashlight 160 3.01v

photocellInput = (analogRead(0)/1); photocellInput = 6 dark to 690 flashlight
http://arduinoarts.com/2011/08/tutorial-led-controlled-by-photo-sensor/#comments
http://www.instructables.com/id/Arduino-Photoresistor-LED-onoff/?ALLSTEPS

Loading the code
Load GoldSTEM_Lesson_9_Dimmable_LED

```
/*
  GoldSTEM_Lesson_9_Dimmable_LED  GoldSTEM tm 2-26-2016
*/


int ledPin = 3;
int photocellInput = 0;

void setup() {
  pinMode(ledPin, OUTPUT);
  Serial.begin(9600);
}


void loop() {

  photocellInput = (analogRead(0)/1); // Divides input 0-1023 to resemble to 0-255
```

```
 Serial.println(photocellInput);
  analogWrite(ledPin, photocellInput);
  // The delay can be change to get the desired dimming effect
  delay(20);
}
```