



TinkerKit Red Led [5mm]



Overview

The **LED** is possibly the simplest actuator available. It's a low power light source available in many colors. It lights up when powered from an Arduino pin.

Input: Arduino provides a maximum of 40 mA per pin; this is enough to light up the LED through the `digitalWrite()` and `analogWrite()` functions.

Module description: This module features a 5mm Red Light Emitting Diode, the standard TinkerKit 3pin connector and a green LED that signals that the module is correctly powered and a tiny yellow LED that shows the current brightness of the red LED. A resistor provides the optimal amount of current when connected to an Arduino.

This module is an **ACTUATOR** therefore the connector is an **INPUT** that need to be connected to one of the **OUTPUT** connectors on the **TinkerKit Shield**.

Code Example

```
/*  
based on Blink, Arduino's "Hello World!"  
Turns on an LED on for one second, then off for one second, repeatedly.  
The Tinkercat Led Modules (T010110-7) is hooked up on 00
```

This example code is in the public domain.

```
*/
```

```
#define O0 11  
#define O1 10  
#define O2 9  
#define O3 6  
#define O4 5  
#define O5 3  
#define I0 A0  
#define I1 A1  
#define I2 A2  
#define I3 A3  
#define I4 A4  
#define I5 A5
```

```
void setup() {  
  // initialize the digital pin as an output.  
  // Pin 13 has an LED connected on most Arduino boards:  
  pinMode(O0, OUTPUT);  
}
```

```
void loop() {  
  digitalWrite(O0, HIGH); // set the LED on  
  delay(1000); // wait for a second  
  digitalWrite(O0, LOW); // set the LED off  
  delay(1000); // wait for a second  
}
```