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Laser Sensor Module KY-008

Introduction:

Laser Sensor is an electronic device usually used to detect small objects. It is also used to detect the accurate positions. Laser light has light waves of same wave lengths. Due to the fact, laser light travels in a parallel direction. It is dangerous for humans because it can cause serious eye problems, if you look directly into the light when it is ON. It can cause blindness too. It can be used to transmit data over long distances, which is considered to be its major benefit. Laser sensor module is shown in the figure given below.

Objective:

Turns the laser on and off and reads the voltage coming from the modules center pin which is displayed on the serial monitor.

Components:

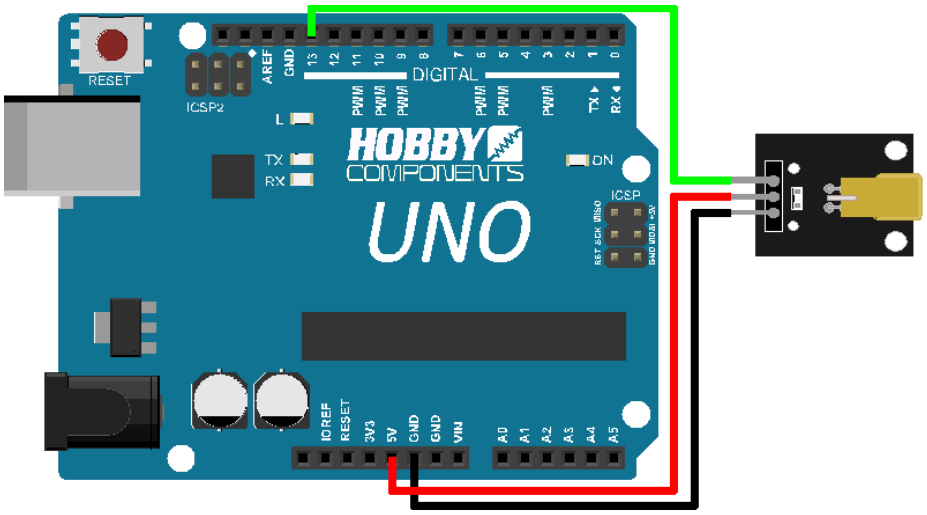
- Arduino Uno Board
- Laser Sensor Module KY-008
- Breadboard
- USB Cable
- Several Jumper Wires

Procedures:

Step 1: Build the circuit.

The connection between the Laser Sensor Module KY-008 and the Arduino Uno Board:

Laser Sensor Module KY-008	Arduino Uno Board
PIN 1	**PIN 13**
PIN 2	**5V**
PIN 3	**GND**



Step 2: Insert the sample programming provided below by copy and paste it into Arduino IDE.

```
void loop() {

digitalWrite(Laser,HIGH); // turning the laser on

voltage = analogRead(13); //reading the voltage on PIN 13 and storing the value received in "voltage"

float voltage1 = voltage * (5.0 / 1023.0); // transforming the value stored in "voltage" to readable information

Serial.print("the laser is ON and the voltage on the center pin is "); //sending that sentence to the serial monitor

Serial.println(voltage1); // adding the value in voltage1 to the end of the sentence above and starting a new line on the monitor
```

```
Serial.println(); // adding a blank line for readability

delay(1000); // waiting for one second before continuing sketch

digitalWrite(Laser,LOW); // turning the laser off

voltage = analogRead(13); // reading the voltage on PIN13 and storing the value received in "voltage"

float voltage2 = voltage * (5.0 / 1023.0); // transforming the value stored in "voltage" to readable information

Serial.print("the laser is OFF and the voltage on the center pin is "); // sending that sentence to the serial monitor

Serial.println(voltage2); // adding the value in voltage2 to the end of the sentence above and starting a new line on the monitor

Serial.println(); // adding a blank line for readability

delay(1000); // waiting for one second before continuing sketch

}
```

Step 3: Open the serial monitor to observe the result as shown below.