# Infrared Line Tracking Module
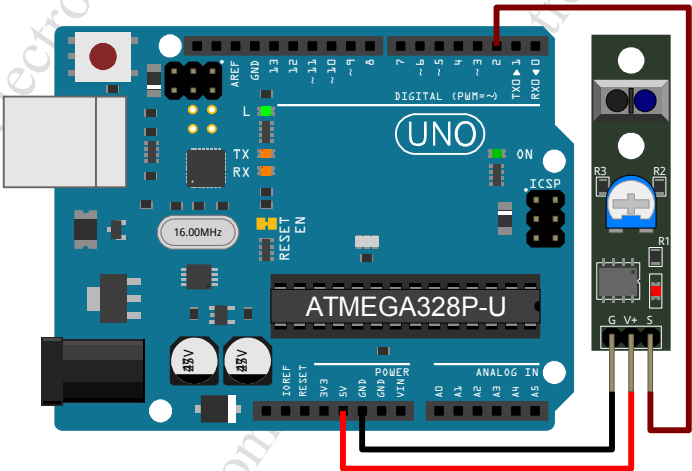
This module contains an integrated infrared reflection detector (transmitter / receiver pair) mounted parallel to the **P**rinted **C**ircuit **B**oard which detects between light and dark objects a short distance (up to 10 millimetres [mm]) from the detector's face. Its sensitivity is adjusted via the on-board 270º rotation potentiometer.

It is able to distinguish between light and dark objects such as a thick dark line drawn on a light surface. It outputs an analogue signal proportional to the infra-red reflection level of an object, and a digital signal when a preset level has been reached.

### Table 1: Infrared Line Tracking Module Pin Connections

| Device | Arduino | Wire | Description |
|--------|---------|------|-------------|
| G | GND | ■ | Ground connection. |
| V+ | 5V | ■ | Positive 5 **V**olts **D**irect **C**urrent supply for board circuitry. |
| S | D2 | ■ | Digital output signal from infrared sensor. |

D2: can be any digital pin.



*The sketch below displays the results to the Arduino Serial Monitor / Plotter.*

```
int pLineTrack = 2;
void setup() {
  Serial.begin( 9600 );
  pinMode( pLineTrack, INPUT );
}
void loop() {
  Serial.println( digitalRead( pLineTrack ), DEC );
}
```

## Module Specifications

| | |
|---|---|
| PCB Dimensions ( H × W × D ) : | 41.7 × 10.5 × 1.6 mm |
| Enclosing Dimensions ( H × W × D ) : | 47.5 × 10.5 × 11.4 mm |
| Weight: | 2.24 grams [g] |
| Input Voltage: | 5 **VDC** |

## Module Performance

| | |
|---|---|
| Current Draw (not triggered): | 10.9 milliamps [mA] @ 5.01 **VDC** |
| Current Draw (triggered): | 12.8 mA @ 5.03 **VDC** |

# Infrared Line Tracking Module…

**Projects**

Folder: **\Modules\Optical\Infrared_Line_Tracking\**

- **Infrared_Line_Tracking_SM**: Displays the results to the Arduino Serial Monitor / Plotter.

# Infrared Line Tracking Module - Dimensions