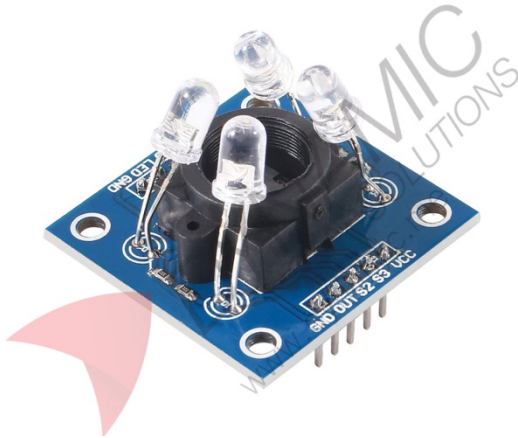


Color Sensor GY-31 TCS230 TCS3200

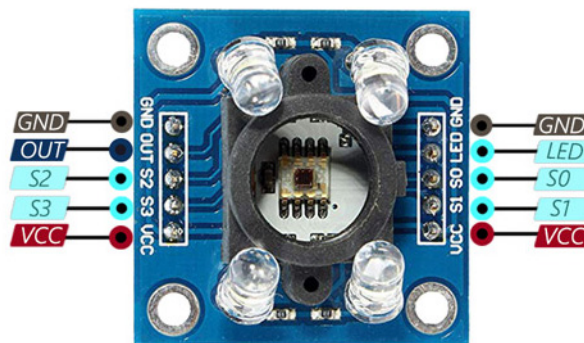


Features:

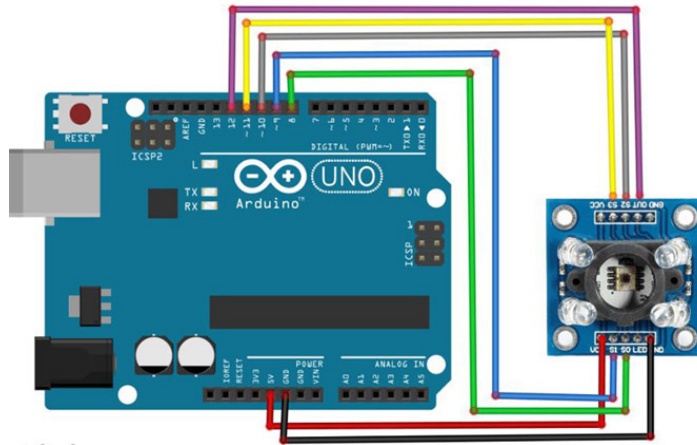
The GY-31 TCS3200 Color Sensor uses the TCS3200 chip to convert light intensity into frequency. Equipped with bright white LEDs, it provides stable illumination for accurate color detection of static objects up to 1 cm away. The module communicates directly with microcontrollers and supports programmable frequency scaling via S0/S1 pins and photodiode selection via S2/S3 pins. Operating at DC 3–5V, it is RoHS-compliant and ideal for robotics, industrial automation, smart DIY electronics, and educational projects.

Specifications	
Chip	TCS3200
Operating Voltage	DC 3–5 V
Supply Current	25 mA (LED ON at 5V)
Output Interface	Frequency output
LED	Bright white, controllable ON/OFF
Photodiode Selection	Configurable via S2/S3 pins
Frequency Scaling	Programmable via S0/S1 pins
Operating Temperature	–40~85°C
Dimensions	33.2 × 33.2 × 25 mm
Detection	Static object color
Best Detection Distance	1 cm
Usage	Robotics, color detection, industrial automation, DIY electronics

Pinouts:



Pin Name	Type	Description
GND	Power	Power supply ground
OUT	Output	Frequency output
S2	Input	Photodiode type selection input
S3	Input	Photodiode type selection input
VCC	Power	Supply voltage 3–5 V
VCC	Power	Supply voltage 3–5 V
S1	Input	Output frequency scaling selection
S0	Input	Output frequency scaling selection
LED	Output	LED control: 1 = ON, 0 = OFF
GND	Power	Power supply ground



Product Pictures:

