

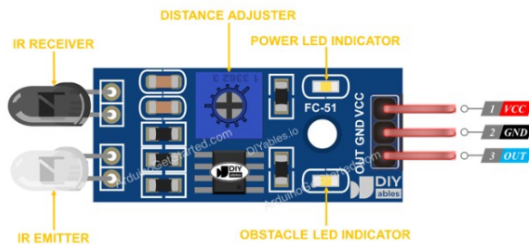
Principle

- The KY-032 Obstacle Avoidance Sensor module is a distance-adjustable, infrared proximity sensor designed for wheeled robots. Also known as AD-032.
- The sensor detection distance ranges from 2cm to 40cm, it can be adjusted by turning the potentiometer knob.
- Its operating voltage is 3.3V – 5V so it is suitable for a variety of micro-controllers like Arduino, ESP32, Teensy, ESP8266, Raspberry Pi, and others.
- It has strong adaptability to ambient light and it is fairly accurate to sense changes in the surrounding environment.

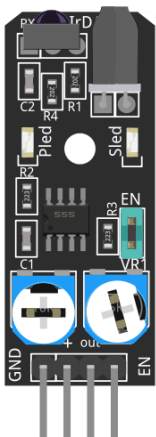
Hardware

Module

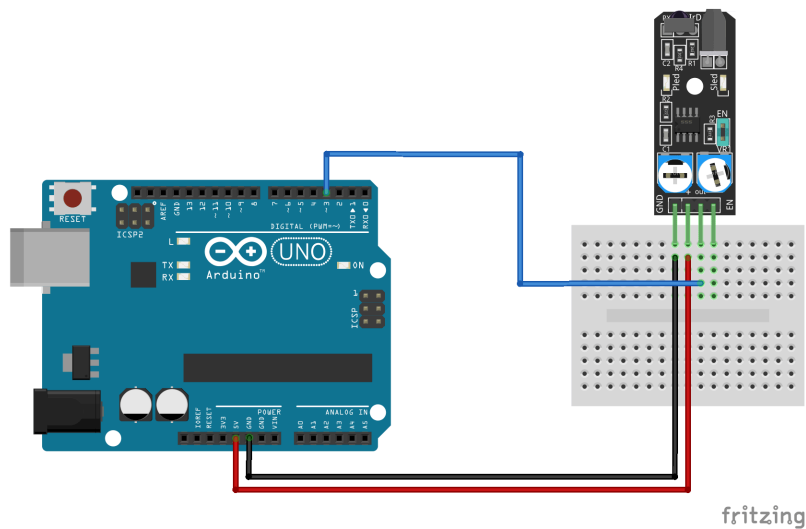
3 Pin output (Enable PIN is connected)



4 Pin output (Enable PIN is selected)



Schematic



- The KY-032 has 4 pins: GND, +, S (out), and EN.
- The **jumper** makes the module permanently enabled so it's always detecting for obstacles.
- To control the state of the sensor remove the jumper and use the EN pin, a HIGH signal will enable the sensor and a LOW signal will disable it.

Knobs

- You can adjust the detection distance by turning the left knob, turn it to the middle for maximum distance.
- The right knob controls the frequency of the emitting IR pulse, turn it clockwise all the way to set the emitter to the right frequency required to work with the receiver.

Links

- [KY-032 Infrared Obstacle Avoidance Sensor Module - ArduinoModulesInfo](#)
[KY-032 Infrared Obstacle Avoidance Sensor Module - ArduinoModulesInfo](#)