

INFRARED REMOTE CONTROL

This small IR remote control emits a 38 kHz modulated IR signal that can be used to control a robot or other electronics project from across the room. It has 21 buttons, including directional and number entry buttons.



Description

This small (3.4" × 1.6" × 0.3") IR remote control emits a modulated IR signal (38 kHz carrier frequency, 940 nm wavelength). It has 21 buttons, including directional and number entry buttons, and it uses the NEC encoding type and sends address bytes 0x00 and 0xBF followed by a data code between 0 and 26 (it skips 3, 7, 11, 15, 19 and 23). When paired with a suitable IR detector, this remote can be used control a robot or other electronics project from across the room.

Typically, you would want a detector intended specifically for IR remote control applications, such as the [Vishay TSOP38438 IR receiver module](#), but we have found that this remote also works decently with the [Vishay fixed-gain TSSP58038 IR detector modules](#) (and with the similar TSSP77038 modules integrated into the front sensor board of the [Zumo 32U4 Robot](#)). An example of this (using a different but similar remote) can be seen in the [Zumo 32U4 Robot Example Projects video](#), and [sample code](#) is available in the Zumo 32U4 library GitHub repository.

This item comes with a CR2025 battery already installed. Once the plastic pull-tab is removed, the remote is ready for use.

Quick Overview

This DIYables infrared remote control kit includes two complete sets, each with a 17-key IR controller and an IR receiver module. The kit provides wireless control for Arduino, ESP32, ESP8266, and Raspberry Pi projects with a communication range of up to 8 meters.

Each 17-key remote controller offers multiple function buttons for versatile control applications including home automation, robot control, LED displays, media players, and interactive projects. The IR receiver module features a simple 3-pin connection (VCC, GND, DATA) for easy integration with microcontrollers.

Compatible with the DIYables_IRcontroller library for simplified programming, this kit works with both 3.3V and 5V systems. The controller requires a CR2025 button battery (not included). Perfect for wireless control projects, remote monitoring systems, and interactive electronics.

Key Features

- Two Complete Kits \u2014 Each set includes 17-key IR controller and receiver module
- 17 Function Keys \u2014 Multiple buttons for versatile wireless control applications
- 8 Meter Range \u2014 Communication distance up to 8 meters for reliable control
- Wide Voltage Range \u2014 Compatible with 3.3V and 5V microcontrollers
- DIYables Library Support \u2014 Simplified programming with DIYables_IRcontroller library
- Multi-Platform Compatible \u2014 Works with Arduino, ESP32, ESP8266, Raspberry Pi
- Wireless Control \u2014 Ideal for home automation, robots, LED displays, and projects
- CR2025 Battery \u2014 Button battery required for controller (not included)
- Versatile Applications \u2014 Remote control, automation, interactive projects, and more

SPECIFICATION

Specification	Value
Product Type	Infrared Remote Control Kit
Controller Keys	17 function keys
Communication Range	Up to 8 meters
Controller Battery	CR2025 button battery (not included)
Protocol	Infrared (IR) communication
Library Support	DIYables_IRcontroller library available
Compatibility	Arduino, ESP32, ESP8266, Raspberry Pi, any 3.3V/5V microcontroller

Applications	Home automation, robotics, remote control, interactive projects
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Library

- [DIYables IRcontroller Library](#)

Tutorials

- [Arduino - DIYables IR Remote Controller](#)
- [Arduino Nano - DIYables IR Remote Controller](#)
- [Arduino Nano ESP32 - DIYables IR Remote Controller](#)
- [ESP32 - DIYables IR Remote Controller](#)
- [ESP8266 - DIYables IR Remote Controller](#)

COMPATIBLE HARDWARE

- Arduino boards (UNO, Mega, Nano, etc.) \u2014 Digital pin for IR receiver
- ESP32 development boards \u2014 Any GPIO pin
- ESP8266 boards (NodeMCU, Wemos D1, etc.) \u2014 Digital pin support
- Raspberry Pi (all models) \u2014 GPIO pins
- Any 3.3V or 5V microcontroller with digital input capability
- Works with DIYables_IRcontroller library for simplified programming