Grove - Infrared Receiver

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Introduction

The Infrared Receiver is used to receive infrared signals and also used for remote control detection. There is a IR detector on the Infrared Receiver which is used to get the infrared light emitted by the Infrared Emitter. The IR detector have a demodulator inside that looks for modulated IR at 38 KHz. The Infrared Receiver can receive signals well within 10 meters. If more than 10 meters , the receiver may not get the signals. We often use the two Groves-the Infrared Receiver and the [Grove - Infrared Emitter](http://www.seeedstudio.com/wiki/Grove_-_Infrared_Emitter) to work together.

**Model:**[**WLS12136P**](http://www.seeedstudio.com/depot/grove-infrared-receiver-p-994.html?cPath=139_204)

[](http://www.seeedstudio.com/wiki/File:Grove_-_Infrared_Receiver.jpg)

Features

* Grove compatible interface
* Supports 3.3V and 5V supply voltages.

Application Ideas

* Remote Control of robots, relays or other things

Mechanic Dimensions

20mm by 24mm

Usage

**Hardware Installation**

Connect the Transmitter module to Digital I/O 10 of the [Grove - Base Shield](http://www.seeedstudio.com/wiki/Grove_-_Base_Shield) on the receiving arduino.

**Programming**

The demo below is the IRrecvDemo.pde example provided by the IRremote library.

Download [IRremote.zip](http://arcfn.com/files/IRremote.zip) and unpack into arduino/hardware/libraries in your arduino installation.

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\* IRremote: IRrecvDemo - demonstrates receiving IR codes with IRrecv

\* An IR detector/demodulator must be connected to the input RECV\_PIN.

\* Version 0.1 July, 2009

\* Copyright 2009 Ken Shirriff

\* http://arcfn.com

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#include <IRremote.h>

**int** RECV\_PIN = 11;

IRrecv irrecv(RECV\_PIN);

decode\_results results;

**void** **setup**()

{

**Serial**.begin(9600);

irrecv.enableIRIn(); // Start the receiver

}

**void** **loop**() {

**if** (irrecv.decode(&results)) {

**Serial**.println(results.value, **HEX**);

irrecv.resume(); // Receive the next value

}

}

Support

[Ask questions on Seeed forum](http://www.seeedstudio.com/forum).

Version Tracker

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| **Revision** | **Descriptions** | **Release** |
| v0.9b | Initial public release | 04,Oct,2011 |

Resources

* Eagle files: [File:Twig - Infrared Receiver v0.9b.zip](http://www.seeedstudio.com/wiki/File:Twig_-_Infrared_Receiver_v0.9b.zip)
* Schematic (PDF): [File:Twig - Infrared Receiver v0.9.pdf](http://www.seeedstudio.com/wiki/File:Twig_-_Infrared_Receiver_v0.9.pdf)
* [IRremote arduino library](http://arcfn.com/files/IRremote.zip)
* [IRremote arduino library documentation](http://www.arcfn.com/2009/08/multi-protocol-infrared-remote-library.html)
* [TSOP282 Datasheet](http://www.vishay.com/docs/81733/tsop382.pdf)