Experiment 011 IR

#WeAreAllMakers

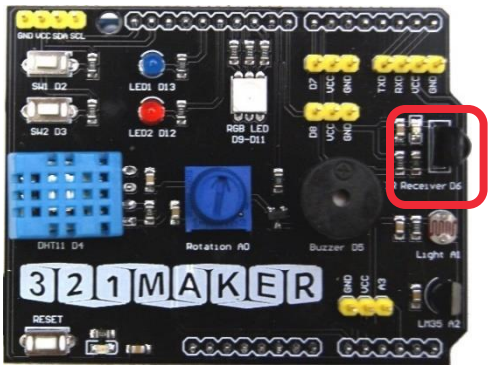
OVERVIEW

In this experiment you will control how to connect a serial LCD to the 321Maker Shield.

OUTCOMES

By the end of this experiment you will be able to:

- Install an Arduino library.
- Connect a serial device to the Arduino.
- Display data to a Serial LCD.



REQUIREMENTS

- Arduino-Compatible board
- 321Maker Things Shield
- USB Cable
- Arduino Software

PREREQUISITES

- Getting Started Tutorial: http://321maker.com/start
- IR Library: https://git.io/vXB5M

VIDEO TUTORIAL

http://youtube.com/indevelopment

LEVEL 1 PROCEDURE

- [ ] Open the IRrecvDemo example from the library.
- [ ] Change the the recv pin from 11 to 6 and upload the IRRecvDemo code to your Arduino.

LEVEL 2 PROGRAM MODIFICATION

- [ ] Open the Arduino serial monitor and map out the raw IR code for each of the buttons on your remote.

LEVEL 3 ADVANCED APPLICATION

- [ ] Write a program that will perform each of the tasks when a user presses a button on the IR remote.

Turn on red led (d12)
Turn off the red led (d12)
Turn on the blue led (d13)
Turn off the blue led (d13)
Make the buzzer beep twice

LEVEL 4 PROJECT CHALLENEGE

- [ ] Write an advanced RGB LED control system that will allow the user to control the RGB LED. When a user press a button on the IR remote have the program complete each of the following tasks.

set red RGB led to a brightness of 25%
red RGB set to 50%
red RGB set to 100%
green set to 25%
green set to 50%
green set to 100%
blue set to 25%
blue set to 50%
blue set to 100%
turn off all LEDS