Charlieplexed PWM LED Driver Welding Instructions

The IS31FL3731 will let you get back to that classic LED matrix look, with a nice upgrade! This I2C LED driver chip has the ability to PWM each individual .LED in a 16x9 grid so you can have beautiful LED lighting effects, without a lot of pin twiddling. Simply tell the chip which LED on the grid you want lit, it can do what you want.



Our package includes: 9*16 led Matrix Driver, Charlieplex grid led breakout board, pin header

1. Assemble the IS31 driver board:

We'll start by soldering the 7-pin "control" header and follow the steps below to finish

2. Add a breakout board:

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Insert the 7pin headers into the breadboard, place the breakout board on the pins and make the short pin headers go through. Breakout pads make sure all pins are soldered for reliable electrical contact.



Solder the board to the two pin headers to make the connection mechanically stable.



4.Attach LED panel

Put the black long pin header on top of the yellow pin header of the LED panel, and combine it with the driver board soldering, then check the solder joints.





5.After welding Install the driver and you can use it

Charlieplexed PWM LED Matrix Installation

Download Libraries

To begin reading sensor data, you will need to dowload the Adafruit IS31FL3731 librarv from the Arduino library manager.



If using an older (pre-1.8.10) Arduino IDE, locate and install Adafruit_BusIO (newer versions do this one automatically).

We also have a great tutorial on Arduino library installation at:

http://learn.adafruit.com/adafruit-all-about-arduino-libraries-install-use (https://adafru.it/aYM)

Load Demo

1.Open up File->Examples->Adafruit_IS31FL3731->swirldemo and upload to your Arduino wired up to the driver & matrix

le Edit Sketch	Tools Help			
New Open Open Recent Sketchbook	Ctrl+N Ctrl+O	Adafruit_GP9002	:	
Examples		Adafruit HTU21DF		
Close Ctrl Save Ctrl Save As Ctrl	Ctrl+W Ctrl+S	Adafruit_HX8340B Adafruit_IL9488	;	
	Ctrl+Shift+S	Adafruit_IS31FL3731		manualanim
Page Setup Print	Ctrl+Shift+P Ctrl+P	Adafruit_L3GD20 Adafruit_L3GD20_U Adafruit_LASERDAC		swirldemo
Preferences	Ctrl+Comma	Adafruit LiquidCrystal		

2. Upload to your Arduino, you'll see the LED display swirl different brightnesses!

