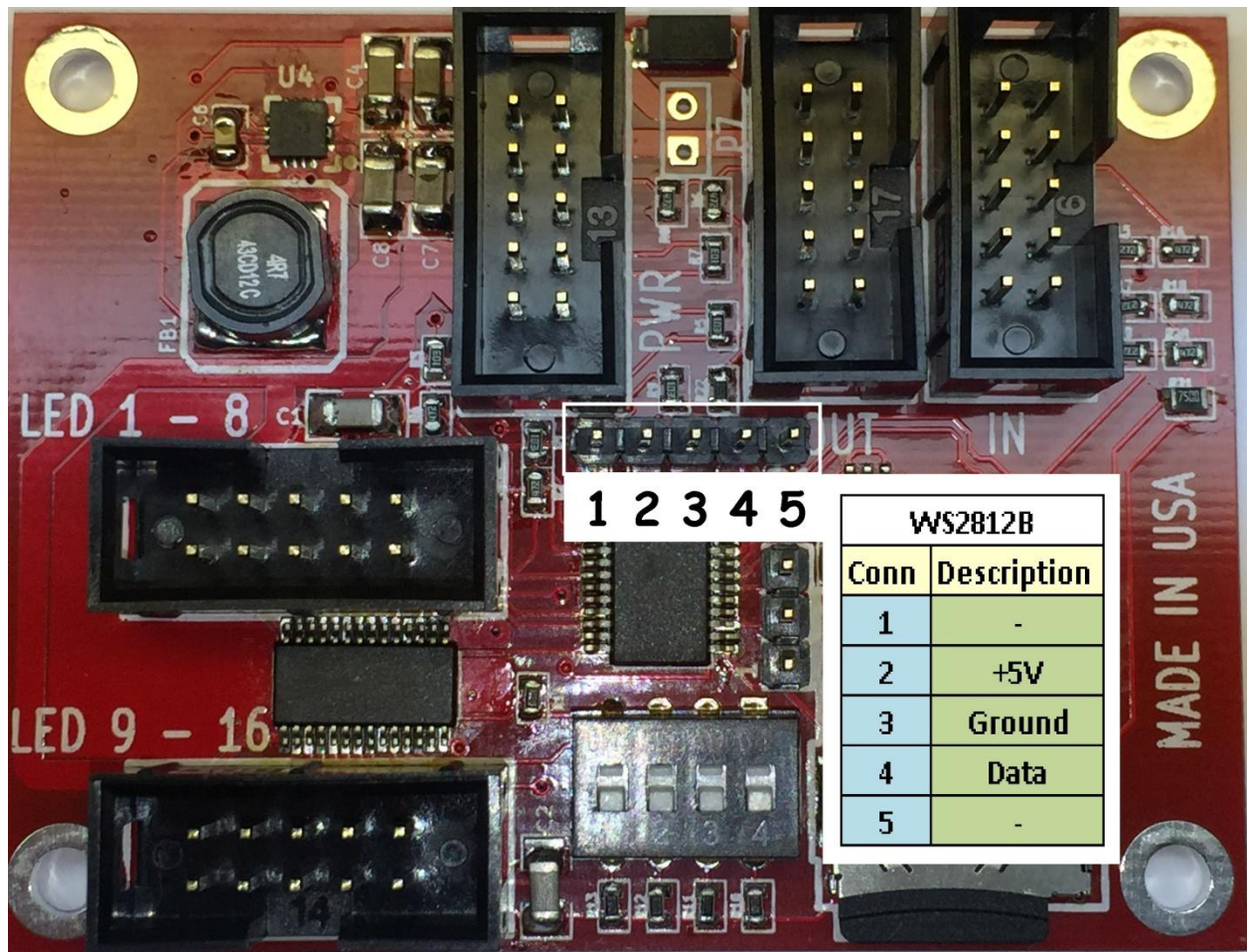


Advanced LED Controller (LED Chaser) Connecting WS2812b

*** For up to date installation instructions and videos visit www.bit.ly/chsr16

Connecting controller to WS2812b LED.

Advanced LED controller can also control multicolor WS2812b in addition to standard LEDs. WS2812b is smart LED containing Red, Green and Blue colors and controlled by one wires. Multiple WS2812b LEDs can be connected together in a chain. To connect WS2812b to LED controller board identify +5V, Ground and Data on WS2812b LED. Connect LED to the board following diagram below. Up to 255 LEDs can be connected in chain.

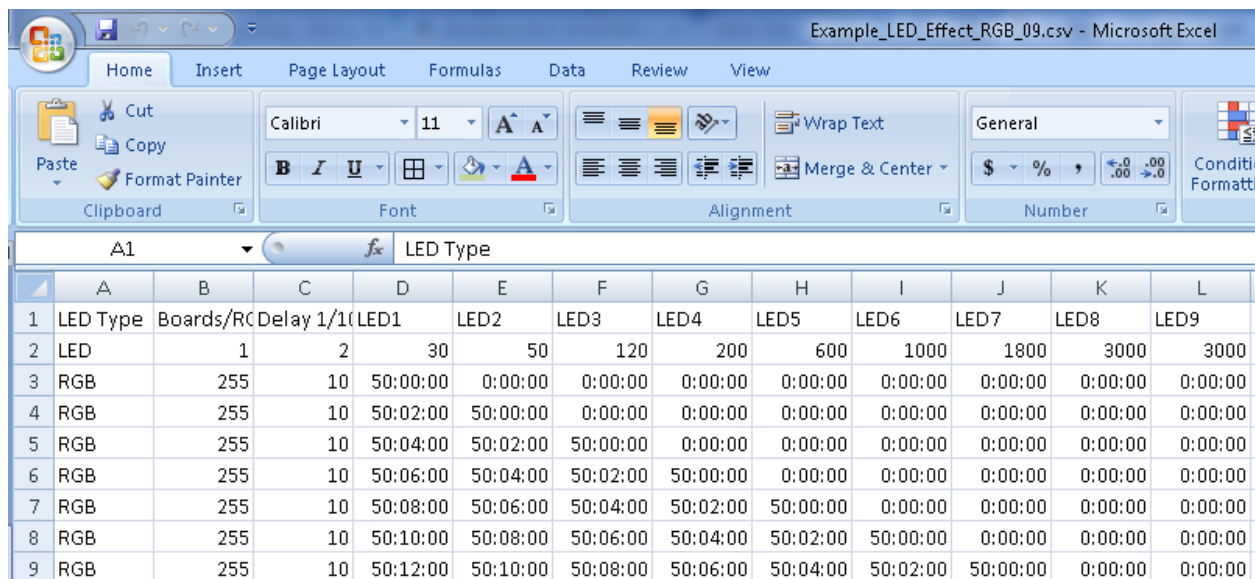


Loading firmware.

Load LED controller firmware to control WS2812b. Firmware can be found on the SD card (directory: *OtherFirmware\WS2812B_and_LED*)

Creating light effects.

Creating WS2812b light effects is similar to standard LEDs. Number of examples can be found on provided micro SD card (directory: *OtherFirmware\WS2812B_and_LED\Effect_files*) or can be downloaded from our website.



	A	B	C	D	E	F	G	H	I	J	K	L
1	LED Type	Boards/RGB	Delay 1/10	LED1	LED2	LED3	LED4	LED5	LED6	LED7	LED8	LED9
2	LED	1	2	30	50	120	200	600	1000	1800	3000	3000
3	RGB	255	10	50:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
4	RGB	255	10	50:02:00	50:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
5	RGB	255	10	50:04:00	50:02:00	50:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
6	RGB	255	10	50:06:00	50:04:00	50:02:00	50:00:00	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
7	RGB	255	10	50:08:00	50:06:00	50:04:00	50:02:00	50:00:00	0:00:00	0:00:00	0:00:00	0:00:00
8	RGB	255	10	50:10:00	50:08:00	50:06:00	50:04:00	50:02:00	50:00:00	0:00:00	0:00:00	0:00:00
9	RGB	255	10	50:12:00	50:10:00	50:08:00	50:06:00	50:04:00	50:02:00	50:00:00	0:00:00	0:00:00

Effect file is CSV (comma separated value) file. It contains the header (first line) describing the columns:

- **LED Type** - LED for standard lights and RGB for multicolor LED
- **Boards/RGB Quantity** - provides number of LED boards or quantity of RGB LEDs

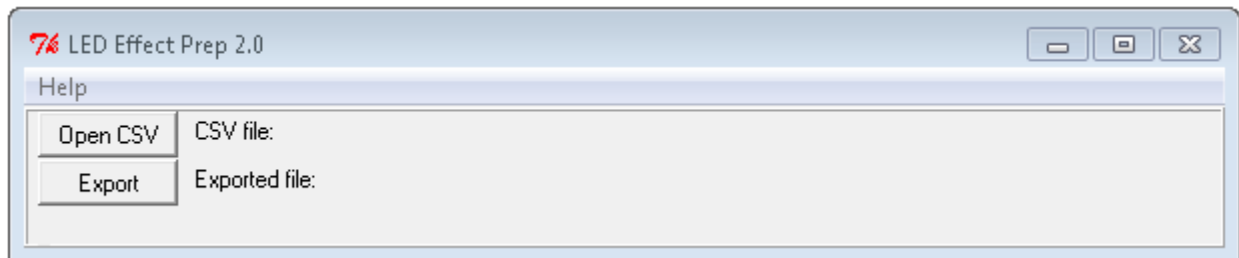
- **Delay 1/100 sec** - the time each frame is displayed in 1/100 of the seconds.
- **LED1 through LEDxxx** - intensity for each light.

Intensity for each RGB WS2812b LED can be specified in three different formats:

- Color: **RED, CRIMSON, MAGENTA, VIOLET, BLUE, COBALT, CYAN, TORQUOISE, GREEN, YELLOWGREEN, YELLOW, ORANGE** and **WHITE**.
- Color with intensity. Example: **RED:50** (50% of color RED).
- RGB. Example: **255:0:0** (color RED), **0:127:255** (color COBALT).

Once the effect CSV file is created it needs to be converted to the file understood by the LED Chaser.

Conversion program is provided on the micro SD card in the directory: */LedEffect Conversion*. Run the program *LedEffectPrep.exe*



Click on *Open CSV* and select source effect file. Click on *export* and specify destination directory and file name. Filename should be in the following format *LEDGRB??*.bin (where ?? is a sequence number from 00 to 09). For example: *LEDRGB00*.bin , *LEDRGB01*.bin , *LEDRGB02*.bin etc.

LED Chaser expects to find consecutively named files on micro SD card so start with *LEDRGB00*.bin and increment sequence for the next file.

Transfer file to the micro SD card, plug it into the LED Chaser and power it up to display created effect. If you need to reset the LED Chaser to initial file and display rate hold the SET button before powering up.

To select next effect file push control pad UP button.