

Unit NeoHEX

SKU:A045-B



Description

Unit NeoHEX is a hexagonal RGB LED light panel embedded with 37 RGB LED full-color beads. It uses a single-bus control and supports cascading multiple light panels. It provides two sets of input interfaces with different socket angles, which can be used for independent power supply + signal control, ensuring sufficient power supply when cascading multiple light panels. The external structure comes with mounting ears for easy embedding and fixing. It comes with a milky white diffuser, making the lighting effect softer, suitable for various lighting DIY exhibits.

Features

- WS2812C-2020-V1
- Number of NeoHEX beads: 37
- Supports cascading multiple light panels and strips
- 6 x mounting ears (easy-to-remove design)
- Comes with a milky white diffuser
- Single pixel supports 256-level brightness display, enabling 16,777,216 colors of full-color display

Includes

- 1 x Unit NeoHEX
- 1 x Milky white diffuser
- 1 x Power consumption reference card
- 1 x HY2.0-4P Grove cable (20cm)

Applications

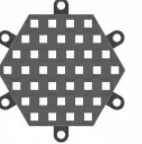
- Lighting decoration

Specifications

Specification	Parameter
LED Model	WS2812C-2020-V1
Number of LEDs	37
Supply Voltage	3.7 ~ 5.3V
Logic Input Level	-0.3V ~ VDD+0.7
Input/Output Interface	HY2.0-4P interface: 2x input (signal, power), 1x output (extension)
Refresh Rate	30 frames (cascading up to 1024)
Color/Power Reference	Measured power consumption (37 LEDs fully lit, white light): 10%: DC 5V@207mA Green: DC 5V@109mA Blue: DC 5V@208mA White: DC 5V@568mA
Adjustable Brightness	256 levels
Supported Colors	16,777,216 colors
Mounting Hole Diameter	2mm
Product Size	36.0 x 36.0 x 9.6mm
Product Weight	3.9g
Package Size	138.0 x 93.0 x 8.0mm
Gross Weight	9.7g

Learn

Brightness/Power Consumption Reference

LIGHTING	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	 NeoHex
TOTAL CURRENT	47 mA	104 mA	163 mA	220 mA	278 mA	334 mA	392 mA	448 mA	506 mA	568 mA	

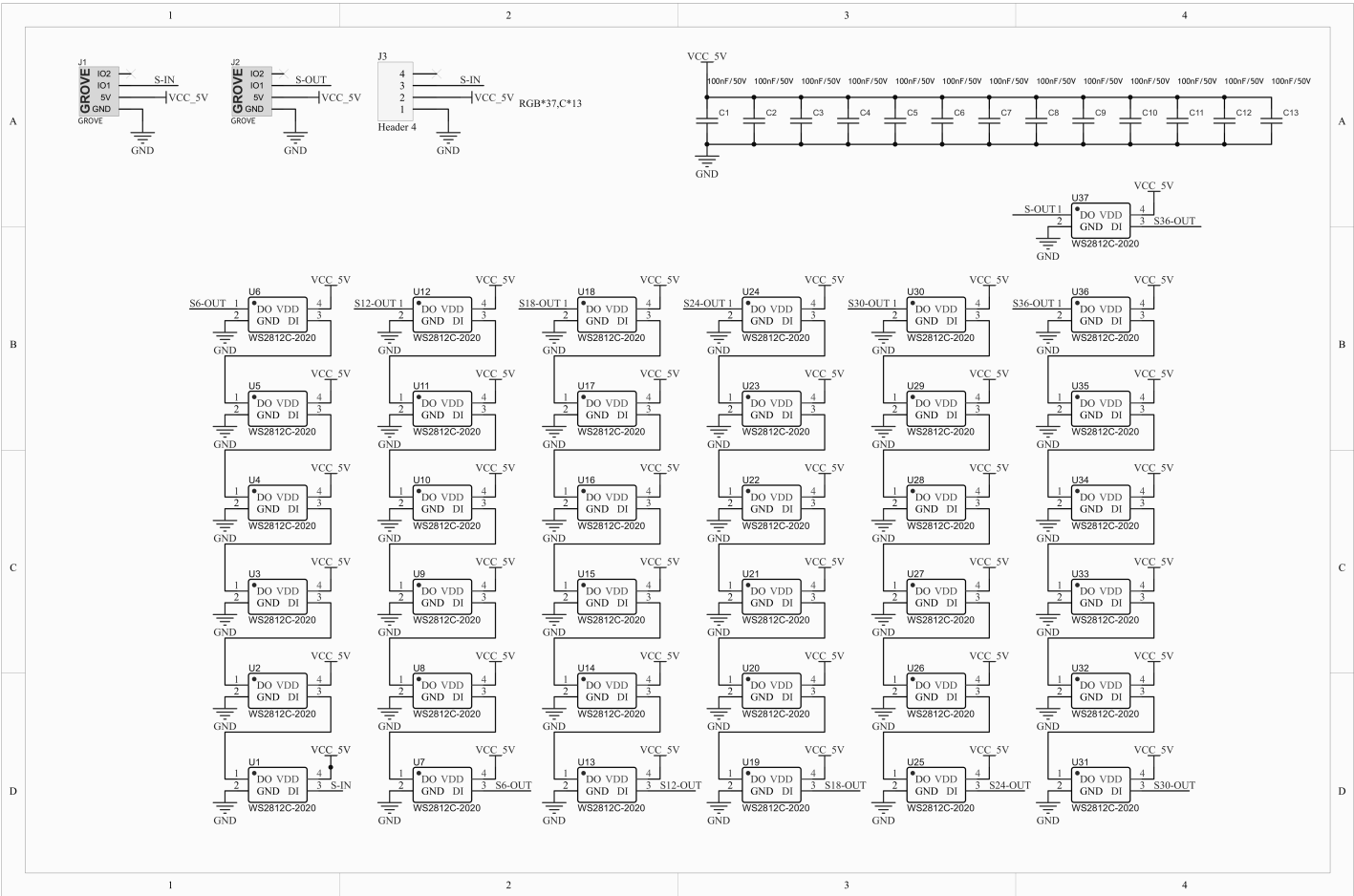
Driving Conditions

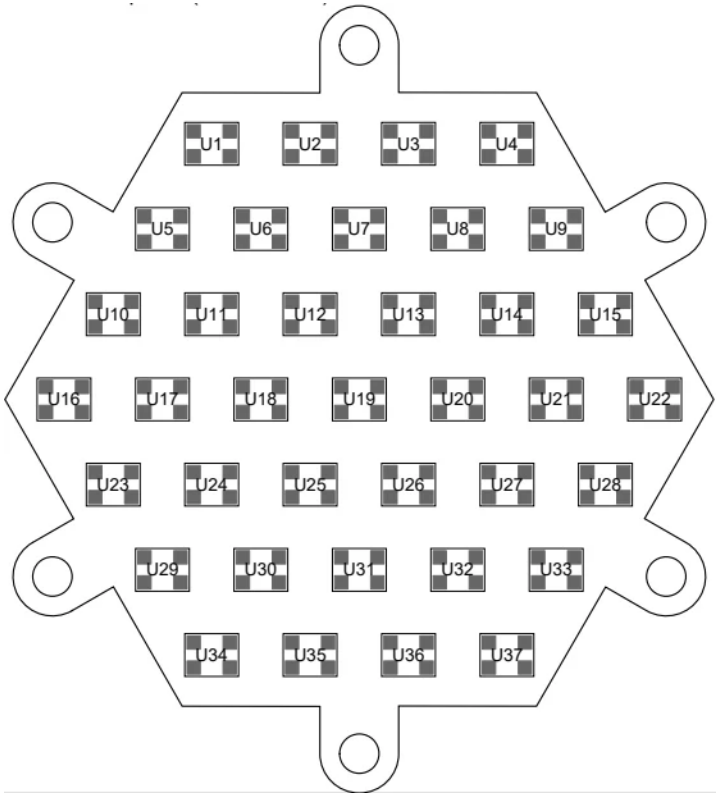
Reference for driving conditions of this light panel under USB power supply with different M5 controllers:

- Measured driving conditions:
 - ATOM: White light brightness at 82% normal drive (>86% cannot light up)
 - CORE: White light brightness at 100% normal drive
 - CORE2: White light brightness at 100% normal drive
 - M5StickC: White light brightness at 86% normal drive (>90% cannot light up)
 - M5StickCPlus: White light brightness at 78% normal drive (>86% cannot light up)

Schematics

- [Unit NeoHEX Schematics PDF](#)



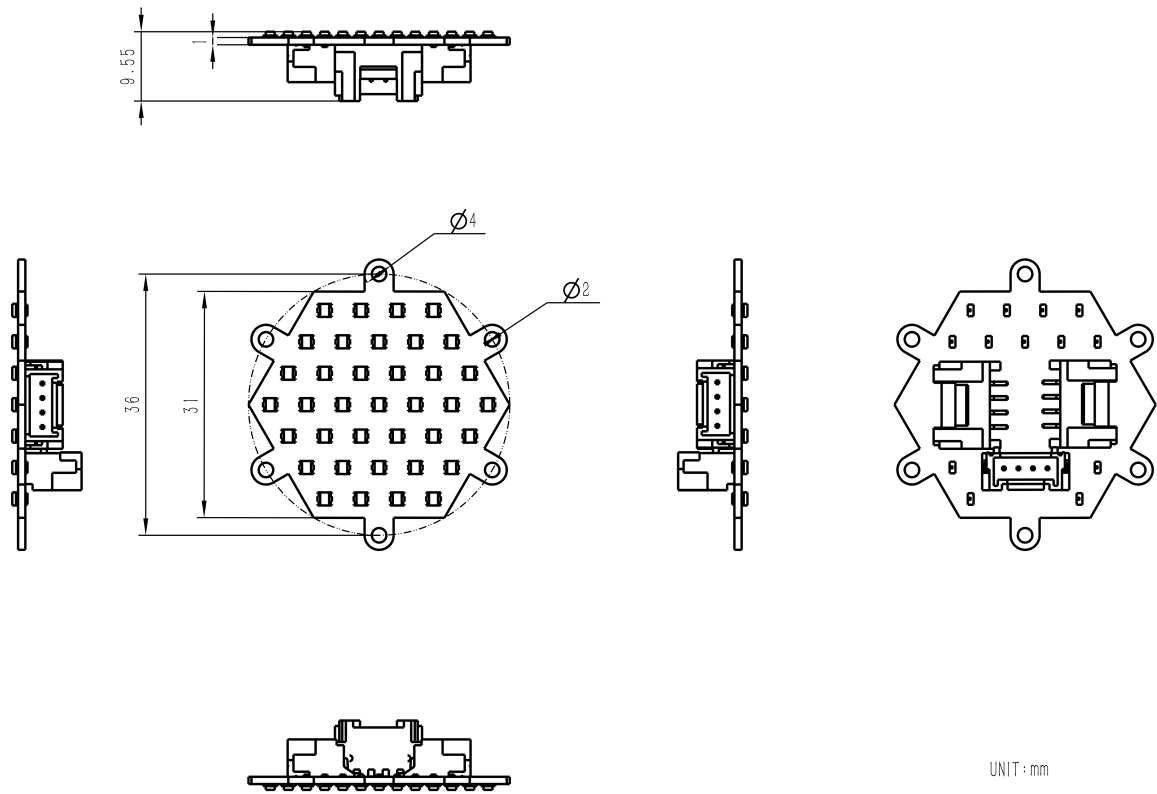


PinMap

Unit NeoHEX

HY2.0-4P	Black	Red	Yellow	White
PORT.B	GND	5V	LED Signal	NC

Model Size



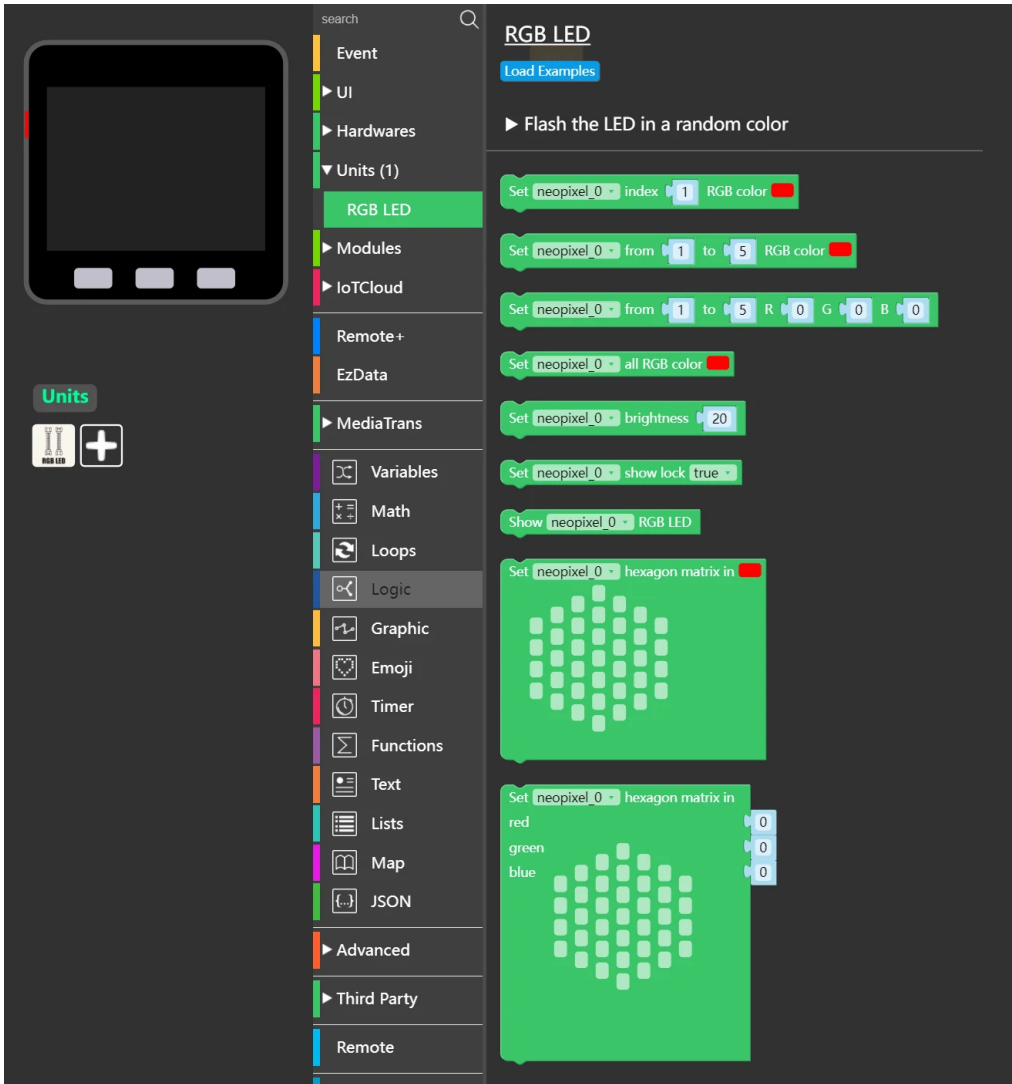
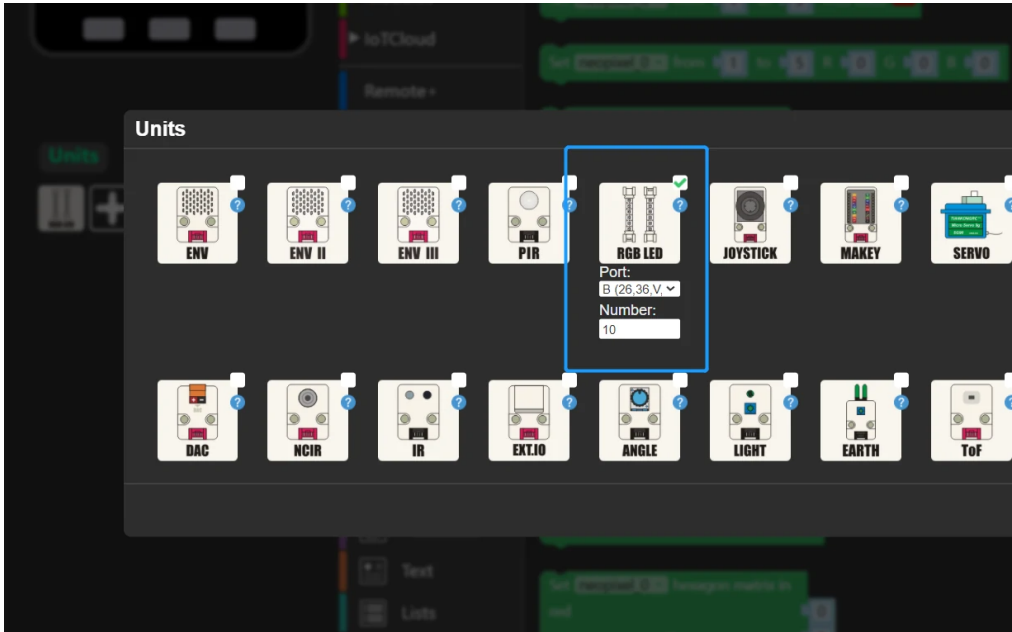
Softwares

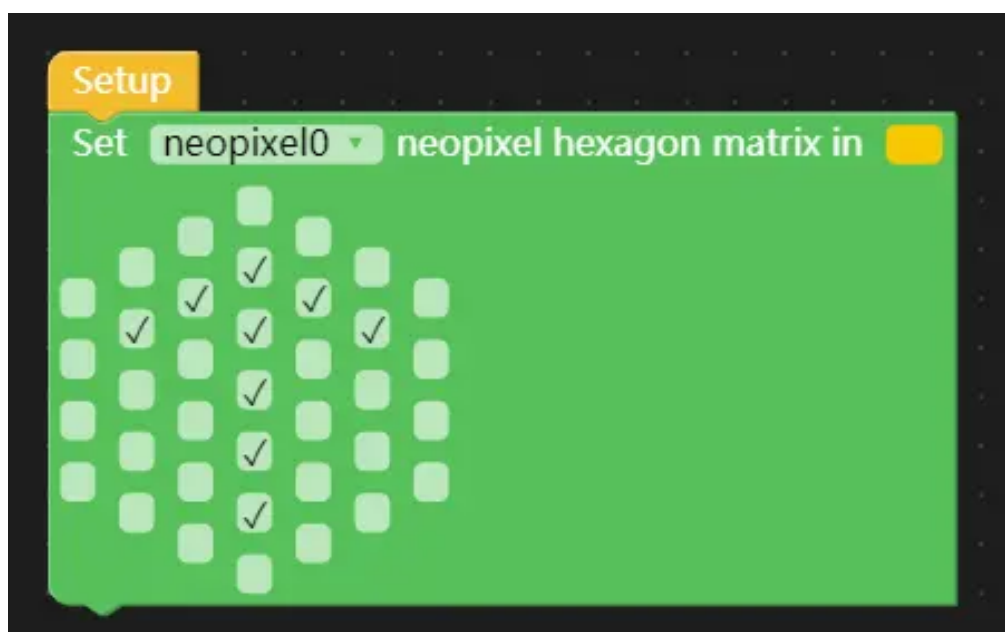
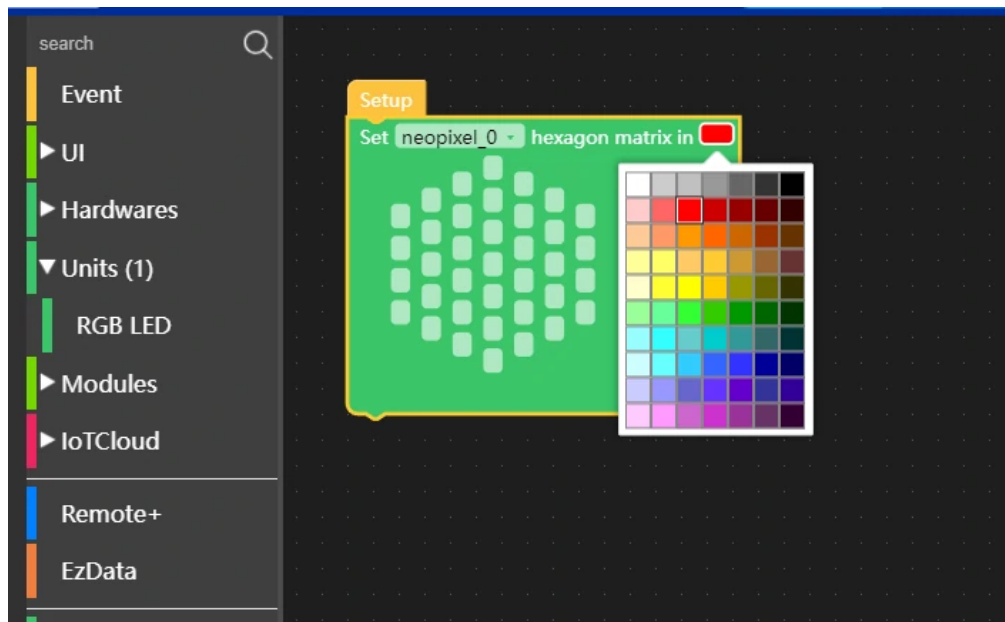
Arduino

- [FastLED Arduino Library](#)
- [Unit NeoHEX Test Example](#)

UiFlow1

- [Unit NeoHEX Test Example](#)





Home Assistant

- [Unit NeoHEX Home Assistant Integration](#)