

What is EV3Lights

EV3Lights is a controller to control RGB LED Strips using EV3 or NXT brick.

You can control the light intensity of three colors (Red/Green/Blue) of the LED strip independently from your program.

Programming Environment(s)

EV3Lights is supported for use in the following platforms using software blocks/libraries.

EV3-G IDE (for EV3 or NXT Brick):

To use capabilities of EV3Lights, please download EV3 blocks available at following URL:

http://www.mindsensors.com/index.php?controller=attachment&id_attachment=331



Installation instructions for EV3 block are available at:

<http://www.mindsensors.com/content/13-how-to-install-blocks-in-ev3>

Download EV3 sample program from following URL and modify it to suit your needs.

http://www.mindsensors.com/index.php?controller=attachment&id_attachment=332

Note: While using with EV3, ensure to use firmware version 1.03H or 1.03E or higher on your EV3.

NXC/BricxCC Library functions (for NXT Brick) are available at:

http://www.mindsensors.com/index.php?controller=attachment&id_attachment=330

Connecting EV3Lights

Wiring for EV3Lights

EV3Lights may be connected to any of the sensor ports of NXT/EV3 using standard NXT/EV3 connector cable. In your program, select the appropriate port number to which EV3Lights device is connected.

Powering LEDs

Note: Do not use strip longer than 2.5 meters.

For Powering LEDs use a standard 12V power adapter with barrel connector.



If you are using different power source, be sure to match the power ratings of power adapter you choose.

For shorter strips (about 1 meter), you can use a 9V battery.



Connecting LED Strip to EV3Lights

While connecting LED strip be sure to match 'R', 'G', 'B' and Power pins of your strip with the markings on the EV3Lights device.

I2C Address:

Factory default I2C address: 0x2c

I2C Registers:

Register	Read	Write
0x00-0x07	Software version - <i>V1.10</i>	-
0x08-0x0f	Vendor Id - <i>mndsnsrs</i>	-
0x10-0x17	Device ID - <i>EV3Light</i>	-
0x42	-	Intensity of Red LEDs (0-255)
0x43	-	Intensity of Green LEDs (0-255)
0x44	-	Intensity of Blue LEDs (0-255)