EVAL Kit Quick Start Guide

KTD2061

36-Channel RGB LED Drivers with I²C Control

EVAL Kit Physical Contents

Item #	Description	Quantity		
		Included	Downloadable	User-Supplied
1	KTD2061 EVB Rev2.0 fully assembled printed circuit board	1		
2	White plastic light diffuser	1		
3	StemmaQT/Qwiic I2C wire harness	1		
4	Adafruit QT Py RP2040 µC fully assembled printed circuit board	1		
5	USB type-A to type-C cable	1		
6	Demo software (pre-loaded on QT Py)	1	By request	
7	EVAL Kit Manual (pre-loaded on QT Py)	1	1	
8	USB 5V/1A power source			1

Quick Start Procedures and Additional Resources

1. Using the StemmaQT/Qwiic I²C wiring harness, connect the EVAL Kit PCB to the QT Py PCB. To avoid damage within the connectors, do not insert the StemmaQT/Qwiic connectors upside down.
2. Connect the USB cable to the QT Py RP2040 PCB.
3. Connect the other end of the USB cable to a USB 5V/1A power source (user-supplied). You may use an AC wall adapter, battery power bank, or an available USB port from a computer.
4. When power is applied, the demo software first executes 3 test patterns:
    a. All 12 RGB modules turn very dim white for 1 second, then bright white for 5 seconds.
    b. Each RGB takes its turn showing blue, one at a time, and then repeats with green.
    c. The 12 RGBs show a multi-color palette for 5 seconds. Three of them are dim white on purpose.
5. After the test patterns, the demo loops an 8-minute demonstration endlessly until power is removed.
6. When desired, remove power by pulling the AC wall adapter from the AC outlet, or by disconnecting the USB cable from the USB power source.
7. Optionally, to read or modify the demo software, connect the USB cable to a computer.
    a. The QT Py RP2040 connects as an 8MB USB flash drive. The software and collateral documents are stored within.
    b. Open the CircuitPython text file *code.py* with a software editor. Adafruit recommends the freeware *Mu* editor, which is optimized for CircuitPython.
    c. When editing *code.py*, save changes to the QT Py RP2040. After saving, the code will recompile and execute automatically.
    d. The *code.py* file is already replicated as *KTD2061_demo_code.txt* on the QT Py RP2040.
8. For additional resources:
    a. KTD2061/58/59/60 Product https://www.kinet-ic.com/KTD2061/
    b. KTD2061 EVAL Kit https://www.kinet-ic.com/ktd2061euac-mmev02/
    c. Adafruit QT Py RP2040 https://learn.adafruit.com/adafruit-qt-py-2040/overview
    d. Adafruit CircuitPython https://learn.adafruit.com/welcome-to-circuitpython/overview
    e. Mu Editor Installation https://codewith.mu