



3dp fc660 v3 OLED hand wired mechanical keyboard

 sperm

[VIEW IN BROWSER](#)

updated 1. 11. 2023 | published 1. 11. 2023

Summary

Now with bongo cat

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Tags: [mechanicalkeyboard](#)

This is a hand wired keyboard. Please be familiar with the [process of hand wiring](#) before undertaking this project. Inspiration for this project comes from [this hero](#).

Features

- 5° typing angle
- Low profile front height
- Supported layouts:
 - Split backspace
 - ISO enter
 - Split left shift
 - Split right shift
 - Stepped caps lock
 - JIS bottom row

- If I haven't included your preferred combination, please feel free to edit the source file and share
- Vial compatible
- Bongo cat

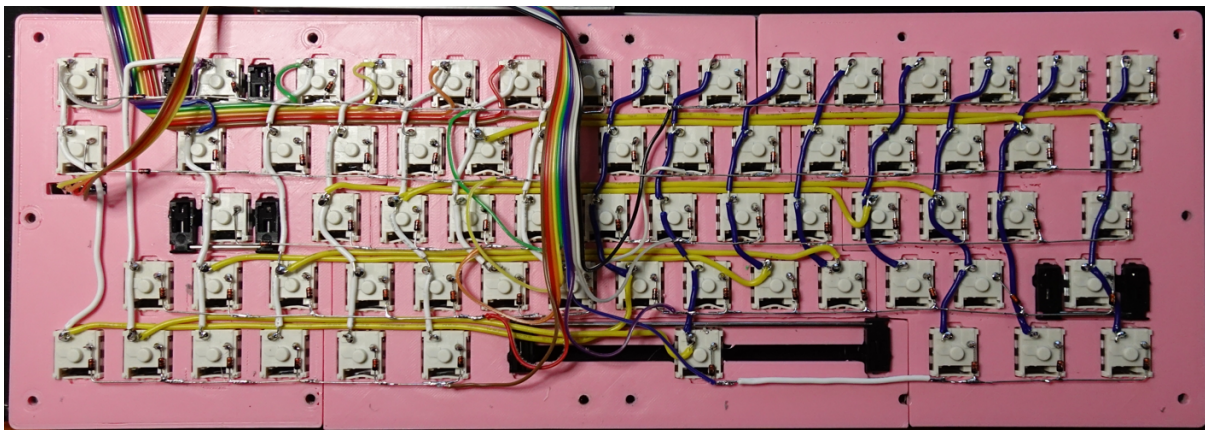
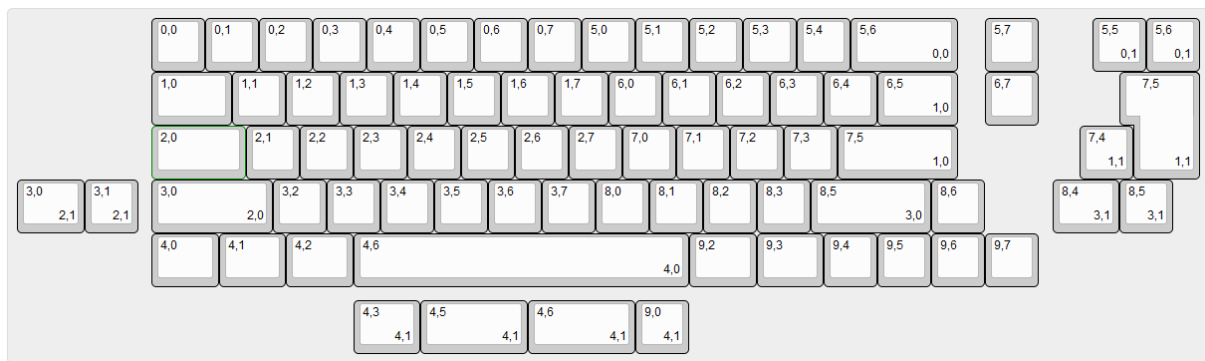
Parts

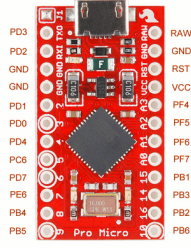
Aside from the printed pieces and tools, you will also need:

QTY	Part	Comment
1	ATmega32U4 MCU	e.g. Arduino Pro Micro or Teensy 2.0.
14	M3 threaded insert (5 mm OD, 3 mm length)	
14	M3 bolt (8-10 mm length)	
1	0.91 inch OLED module 128×32	
≈66	MX keyswitch	Exact number depends on layout.
≈66	Diode	e.g. 1N4148.
2-6	Plate mount stabilisers	Exact number depends on layout.
≈3	Cable ties (3 mm width)	For securing the MCU to the case.
	Wire	Solid wire recommended over stranded.

Wiring guide

Do not wire the rows all the way across. The Arduino Pro Micro only has 20 pins therefore we must use a 10×8 matrix (10 rows, 8 cols) with the last two pins running the OLED display. See diagram below for wiring. The row and col are labeled on the top left legend.



Matrix	Pin	MCU	Pin	Matrix
Row 9	D3		RAW	
Row 8	D2		GND	
	GND		RST	
OLED GND	GND		VCC	OLED VCC
OLED SDA	D1		F4	Col 0
OLED SCK	D0		F5	Col 1
Row 7	D4		F6	Col 2
Row 6	C6		F7	Col 3
Row 5	D7		B1	Col 4
Row 4	E6		B3	Col 5
Row 3	B4		B2	Col 6
Row 2	B5		B6	Col 7
Row 1	B0		D5	Row 0

Firmware

Default firmware with [Vial](#) support is included in the 'Other files' section. Flashing is easy with [QMK Toolbox](#).

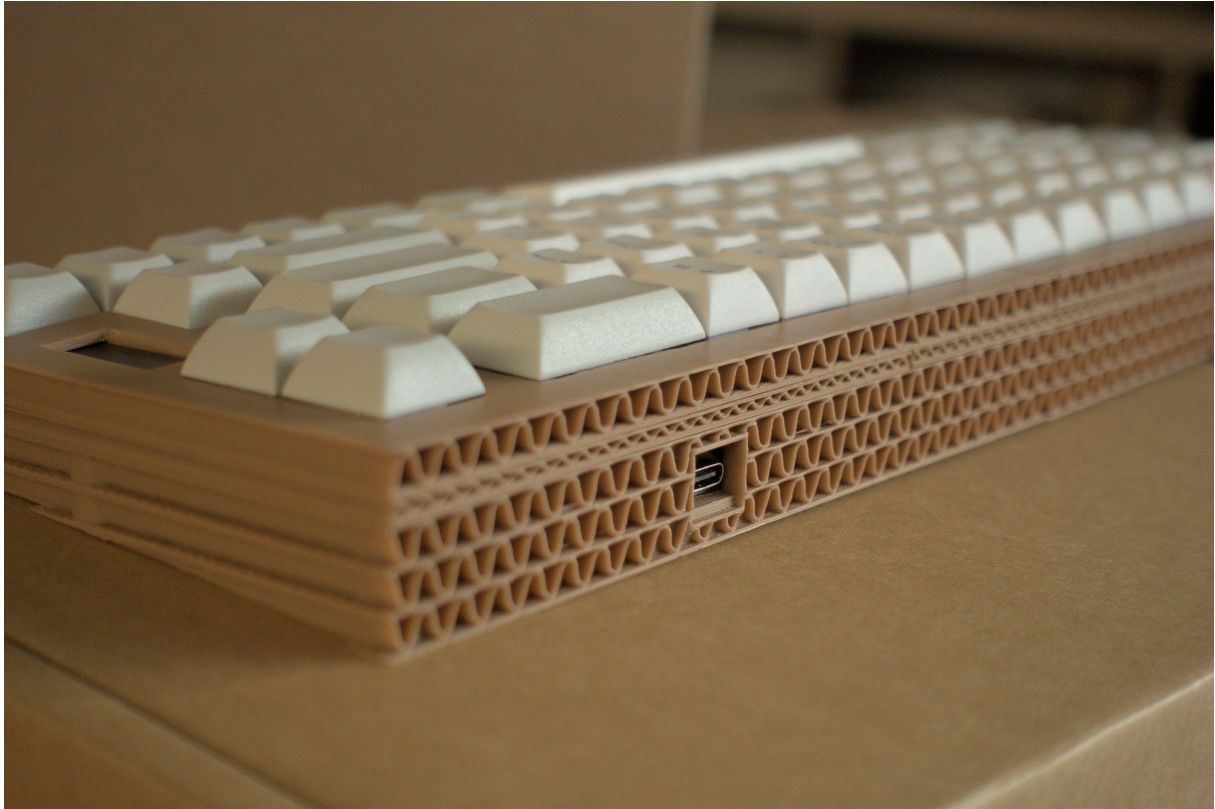
Source code:

- QMK https://github.com/qmk/qmk_firmware/tree/master/keyboards/handwired/3dp660_oled

- Vial keymap https://github.com/xia0/vial-qmk/tree/3dp660_oled/keyboards/handwired/3dp660_oled/

Cardboard design

See my faux cardboard version of this keyboard.



This remix is based on



Clueboard / FC660m 66% Mechanical Keyboard v2

by sperm



Clueboard 660 66% Mechanical Keyboard

by fumbucker



Clueboard 660 66% Mechanical Keyboard

by fumbucker

Model files



case

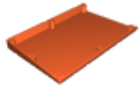
6 files



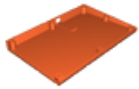
bezel-right-no-oled.stl



bezel-right.stl



case-left.stl



case-right.stl



oled-spacer.stl



bezel-left.stl



plate

11 files



plate-left-iso.stl



plate-left-ansi.stl



plate-left-iso-stepped-capslock.stl



plate-mid-6u-spacebar.stl



plate-right-ansi-6u-spacebar.stl



plate-right-iso-split-backspace-625u-spacebar.stl



plate-right-iso-625u-spacebar.stl



plate-right-ansi-625u-spacebar.stl



plate-right-ansi-split-backspace-625u-spacebar.stl

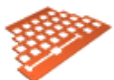


plate-mid-625u-spacebar.stl



plate-left-ansi-stepped-capslock.stl



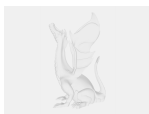
source

1 file



3dp660_oled-v3-v17.f3z

Other files



handwired_3dp660_oled_vial.zip

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