WYLDERBUILDS

Fascinating facts to note in regard to...

Custom Builds

Hello!

Thanks for purchasing (two!) custom Dactyl Manuform builds from Wylderbuilds!

I've included a USB-C to USB-A cable to connect to the PC and a USB-C to USB-C cable to connect the halves. You can plug in either side to the PC.

NOTE: The USB-C connector to connect the halves is the VERTICAL connector at the rear. The USB-C to computer connection is the HORIZONTAL connector. No harm will come if you mix them up, but things won't work.

Careful Installing Switches!

Your switches are already installed, but when swapping them out and installing them, take great care to fit the metal pins into the holes in the hot swap holders. If the metal posts aren't lined up properly, they can butt against the rim of a Kailh hot swap holder and you can potentially tear the holder off of the PCB under the switch if you continue to try to push it through. Take your time and make sure the switch pins are straight. If you feel resistance, back off and check the alignment. I usually hold the switch at the top and bottom, not the sides, as I find it's easier to align the switch parallel to the hole.

The safest way to install the switches is to remove the bottom plate and support each PCB underneath as you install a switch into it.

Layers

There are four layers configured. I've included in the package (or this zipped file) a copy of the layout.c file which shows all the keys on all the layers.

There's a base QWERTY layer, a LOWER layer with more symbols and a number pad on the right, and a RAISE layer with mostly navigation and media keys. The other two layers are completely empty and are there for you to experiment with however you like in Vial (see below) or in the C code itself.

The Raise key is the topmost key on the left thumb cluster and the Lower key is on the right thumb cluster, the key below the wheel encoder.

There's also a MOUSE layer, which is used for auto-mouse layer handling (see below) as well as an EXTRA layer for you to experiment with or do as you please in Vial.

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The Trackball

The mouse buttons and mode controls are set up now on your Lower layer, on the buttons of the left thumb cluster and on the third row of the left half. (Check the keymap.c file.)

On the Lower layer, there are three keys to adjust the default DPI settings on the trackball sensor. The keys are on the top row on the left half.

* DPI_MOD — Adjusts the DPI higher for more sensitivity up to 3200.

* DPI_RMOD — Adjusts the DPI down (reverse) for less sensitivity.

* DPI_RST — Resets the DPI to the base default (1600 dpi.)

NEW! The firmware now support auto-mouse layers. Once enabled (it's off by default), whenever you move the trackball, your keyboard will automatically switch to a MOUSE layer with buttons on the left

side thumb cluster. It will stay on the MOUSE layer until you "click" a mouse button or after a short (configurable) delay.

You can toggle auto-mouse layer support on or off with the WYLD_AUTO_MS_TOG key which is assigned to top rightmost key on the on the main QWERTY layer of the left side.

Two other special mouse modes are included which will be set up and working. SNIPING mode lowers the dpi of the trackball and DRAGSCROLL turns the trackball into a page scrolling control (pgup, pgdn, and side to side.)

OLED Screens

The left OLED screen will display the current layer (Qwrty, Lower, Raise, Mouse), your estimated words-per-minute (WPM), as well as whether Caps/Scroll/Num lock are enabled.

The right OLED displays the current trackball mode (Point, Drag, Snipe) as well as its current DPI setting. It will also show "Auto" when the automouse layer feature is enabled (see above).

If you'd like some other functionality, feel free to reach out.

Vial

Vial is set up and working. You can download it here:

https://get.vial.today/

Once up and running, it will detect the board automatically and load the layout and layers. You can then swap keys and layouts around as you like. In order to add new layers, you'd still need to add it in the keymap.c file and rebuild the firmware.

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Updating Firmware

I maintain a repo with a fork of Vial-QMK with my current firmwares and updates here:

https://github.com/bullwinkle3000/vial-qmk

Code for your specific build and options already exists at:

https://github.com/bullwinkle3000/vial-qmk/tree/vial/keyboards/handwired/wylderbuilds/trackball/3x6_mini_track

The files may change over time, but you can always find your specific original trackball build setup by using Git tag: etsy_3201183171 (your order number at my store).

To rebuild the firmware, clone my repo from the main link and set up QMK MSYS:

https://msys.qmk.fm/

When it's installed, start QMK-MSYS and then navigate to the top directory of my cloned repo and run:

```
qmk setup
```

It will likely churn for a while. You'll only need to run it once.

When it's done, run:

```
qmk compile -kb handwired/wylderbuilds/trackball/3x6_mini_track -km vial
```

It will grind away for some time, but you should end up with a new handwired_wylderbuilds_trackball_3x6_mini_track_vial.uf2 file in that same directory. This is the new firmware file.

To update your keyboard with the new firmware, each controller needs to be put into BOOT mode, which can be done via key combos, one combo for each side.

The boot combos are:

* The LOWER key and the middle key of the rightmost pinky column on the right side (KC_QUOT on the Qwerty layer).
* The RAISE key and the middle key of the leftmost pinky column on the left side (KC_TAB on the Qwerty layer).

When in BOOT mode, the controller will appear as a regular thumb drive on your computer, and you can simply drag the new firmware file over. It will then immediately restart with the new firmware.

To fully update, you'll need to:

1. Keep both halves connected with the USB-C-to-USB-C cable. Plug in one side to your PC and put it into boot mode using the QK_BOOT key combo, above.
2. Once the thumb drive appears, copy over the firmware and wait for it to restart. The thumb drive should close automatically.

3. Unplug the first side from your PC and repeat steps 2 and 3 for the other side to ensure both controllers are updated.
4. Done!

Warranty

If you encounter any issues at all with your keyboard build, let me know and I'll do what I can to make it right.

Refund policy: There's a 60 day full refund window upon delivery. If you're unsatisfied with the keyboard, you can return it within the 60 window for a full refund. After that, and prior to 6 months after delivery, there's a 15% restocking fee. After 6 months from the time of delivery, no returns will be accepted.

Repair policy: There's a 6-month warranty upon delivery and I'll fix anything wonky at issue from my build, electronics, or materials within that time. Shipping back and forth, parts, materials, and time to fix will be free-of-charge. After 6-months, you can request a quote for repair. The customer will pay for all shipping, materials, and hours needed to successfully repair the keyboard.

Cheers!

Andy @ Wylderbuilds