presentation-notes

Tim Anderson

TODO Finish Website & Mirror Presentation Notees TODO Gather Raw Data for Presentation

Prices Ali Express for Keycap Price Digikey for Hardware Cost Collect Info & Tutorial Sources for

Tim Anderson

Who am I?

- https://github.com/mcdviii
- http://aberrent.online

I work in manufacturing as a machine operator for a local furniture manufacturer. I tinker with electronics & free software on my free time.

Why would you want or need this?

Benefits of Ergo keyboards

While browsing around looking at these ergonomic keyboards I see a recurring question: "Why would you need/want that." It seems like a fair question. I imagine in the eyes of an uninitiated it would seem like RGB lighting on a personal computer: expensive, showy & unnecessary. But I would argue there are real health benefits to using a proper ergonomic keyboard.

Let's look at a regular keyboard

- History of Typwriter According to Matt Addereth
- RSI Injuries & How to Avoid Them
- I am not a doctor! I just searched causes for RSI issues! Don't shoot me!
- Compare bad hand posture to OEM keyboard
- Ulnar deviation
- Other relatable reasons (Programmers, emacs pinky)
- My personal reasons

- I consider my hands to be my greatest physical asset, aside from what's floating around in my skull.

Notable Mentions

Kinesis Advantage2

- Advantages:
- Disadvanteges: $320.00 USD
- Open Source: No

ErgoDox

- Advantages:
- Disadvantages:

- Open Source:

Let's Split

- Advantages:
- Disadvantages:
- Open Source:

Atreus

- Advantages: Small, single-board formfactor
- Disadvantages: Not a split design,
- Open Source: Yes

Signum 3 (Troy Fletcher)

- Advantages:
- Disadvantages:
- Differences:
- Open Source:

Other Dactyl Variations

Ergo Dactyl

- Advantages:
- Disadvantages:
- Open Source:

Lightcycle Dactyl

- Advantages:
- Disadvantages:
- Open Source:

Dactyl Manuform

- Advantages:
- Disadvantages:
- Open Source:

What is the Dactyl Keyboard?

- Columnar, Ortholinear, written in Clojure

History or Background

Matt's Clojurcon Youtube Video

Matt's Reasons for making the design

Dactyl was Written in Clojure with the Help of OpenSCAD

Reasons for Choosing Dactyl

- Kinesis Advantage form factor
- Open Source
- Looked like the most comfortable design
- Also looked hella cool

Dactyl Project

My Reasons for Building by Hand Instead of Purchasing

- At the time there were none being manufactured
- Sense of self-satisfaction
- Building my own helps me to improve the project by contributing personal improvements back (Open Source)
- I already own a 3D printer

- Screw paying someone else >$300, I'll just build my own!
- One year later joke

Build Overview

Shell/Case

Switches & Keycaps

Hardware

PCB & Wiring

Firmware

How Does it Work?

- Explain matrix positions

Challenges

- Which way to wire the diodes
- How the keyboard is controlled by the MC (key matrix)

Where To Buy

- I have no affiliation or experience with the following. YMMV!

MassDrop

- Crowd sourced limited manufacturing.

ErgodoxEZ

OhKeycaps.com