Jazz Hands Keyboard RFP

We are building keyboard gloves to liberate the computer user from the tyranny of the desk!

We'll use Hall effect sensors, accelerometers and the <u>ZMK Keyboard firmware</u> to implement the 10-key <u>ASETNIOP</u> layout, and a novel, joystick-style approach to mouse movement. A similar concept can be found in this <u>blog post</u>.

An <u>existing PCB</u> and <u>firmware</u> from an earlier project has been used as a proof-of-concept. The following work needs to be done to transform the project into a working design suitable for personal use; if successful, it may be released as open source. This is compensated, project based work at a mutually agreed upon timeline and fixed price, with Phase 1 completion as soon as practical.

Phase 1

Hardware

Existing PCB design and BOM

- Replace bodged on/off Hall effect sensors with variable sensitivity components, allowing fine-tuning in software
- Modification of connectors for easier assembly by JLC
- Assemble & deliver two sets of devices

Software

Existing ASETNIOP ZMK Layout

- Update ZMK to latest version
- Implement ZMK module for communicating with Hall effect sensors

Phase 2

Hardware

Design and produce 3D-printed enclosures

Software

 Implement mouse control using accelerometer. Think "motorcycle throttle", not "air mouse"

About Me

I'm <u>Pete Fein</u>, a software consultant and CMU adjunct professor with over 30 years of programming experience. I have severe RSI in my wrists/arms/elbows which limits my ability to do my job and generally use a computer. I've tried every keyboard and alternative input device commercially available with only moderate improvements to quality of life and productivity. Email me at <u>pete@snake.dev</u> or <u>schedule a call</u>.