Keyboard
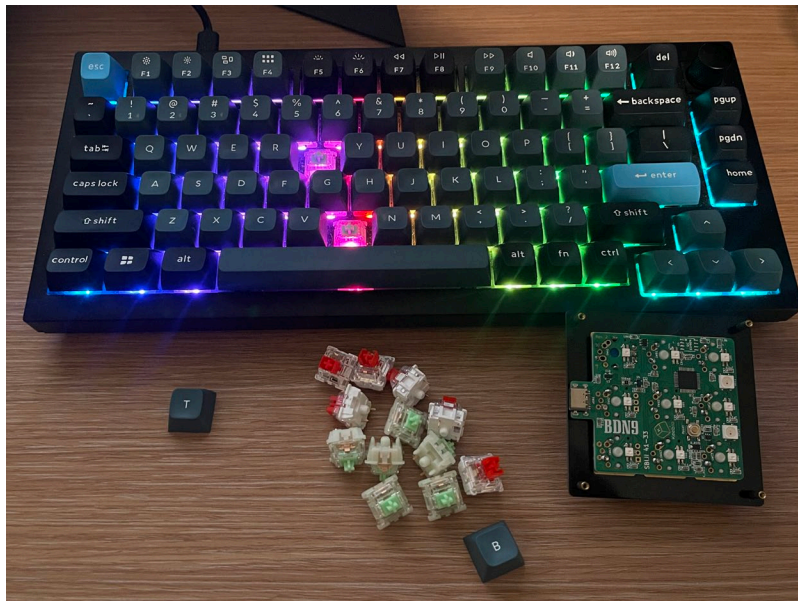
I decided to complement the PC Build with a quality keyboard that had all the specifications I was looking for. I decided to go with a [Keychron](#) keyboard since they are known for the customizable set-ups. This would ensure I could get exactly what I wanted even though the original specifications were not perfect for my likings.

Green Switches are the tactile and the ones I am currently using, the red ones are the linear switched that I decided to remove.

Desired Specifications:

- [Hot-swappable](#) - Satisfied
- RGB lighting - Satisfied
- Wired & Wireless options - Satisfied
- Customizable Firmware - Satisfied
- USB-C - Satisfied
- [Tactile Switches](#) – Not Satisfied but customizable
- Sturdy – Satisfied

Modifications:

Hardware: The keyboard originally came with Keychron branded mechanical switches which I am not a big fan of, furthermore, only the linear switches were available so I opted to doing research on which mechanical switched would fit my needs (tactile switches are better in my opinion since they provide feedback when the key is pressed). I decided on the Gateron Baby Kangaroo Switches which at the time of purchase were one of the best ones available. Furthermore, I really enjoyed this since personally I tend to press the keys hard and the operating force of these switches was one of the highest ones offered.

Firmware: I modified the keyboard's firmware by adding macros to it using an application called [VIA](). This application allows for easy customization of all the keys. In my case, I modified the "pgup", "pgdn", and "home" key to calculator, alt+tab, and screenshot, respectively.
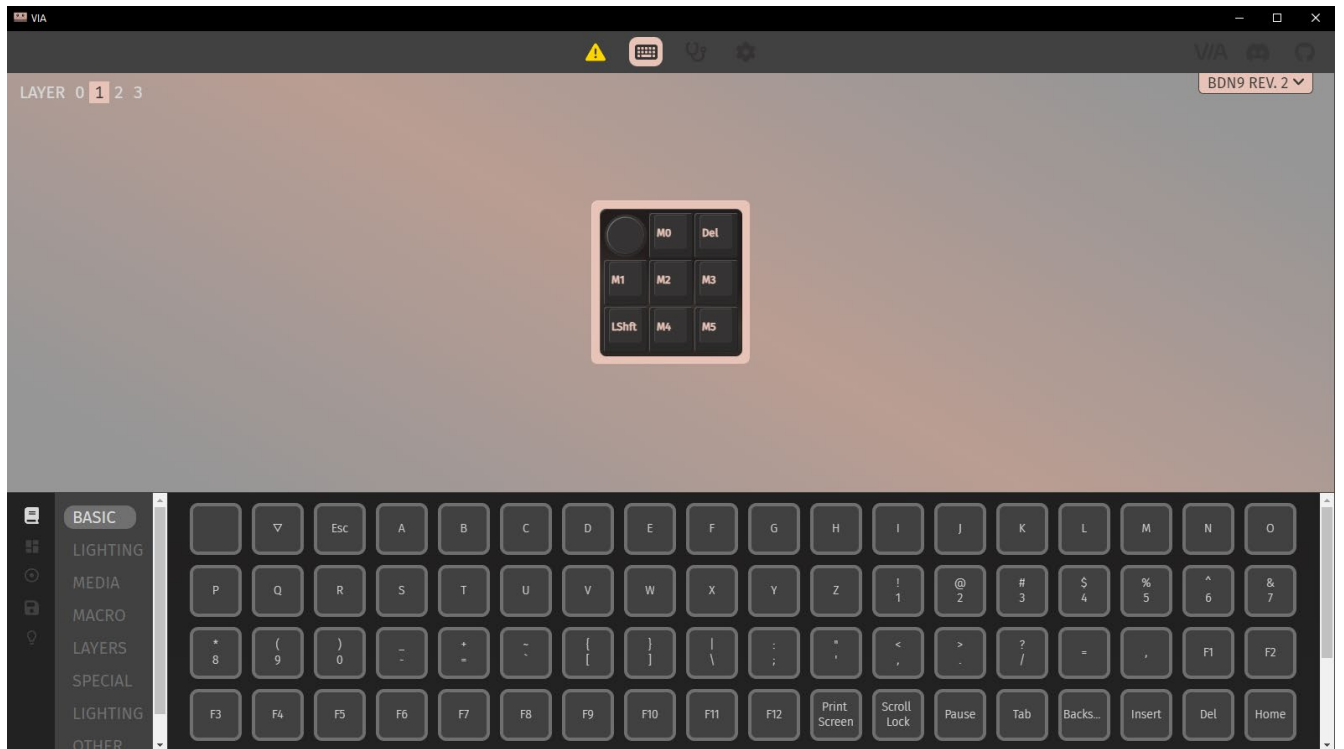
MacroPad

While doing research on how to optimize the commands using AutoCAD and other applications what I was actively using for work, I entered the world of MacroPads. In simplest terms, a MacroPad is a mini "keyboard" with a small amount of keys. The perks of having a MacroPad is customizability that it offers since one can assign any combination of key strokes to a single key. For example, instead of pressing "CO + ENTER" to copy an item on AutoCAD, I could now just press a single key and achieve the same results. The main reason of choosing to assemble a MacroPad rather than editing the commands within AutoCAD was the accessibility that it could provide on multiple softwares at once.

First Attempt: I purchased a MacroPad kit that that was fully DIY, this meant that I had to soder everything into the Printed Circuit Board (PCB). The items that had to be soddered onto the PCB were LED lights, the microcontroller (the brains), and capacitors. Unfortunately, having no previous experience soddering small components, I managed to add to much sodder to a section of the PCB which consequently shorted the microcontroller. MacroPad: DuckPad or DuckyPad, I do not recall the exact name.

Second time's a charm: Being aware of why my first attempt had failed, I researched ways to prevent this until one night while looking through a MacroPad Subreddit, I stumbled upon a brand named [Keebio](). After looking at their different products, I decided to buy a new MacroPad kit (BDN9 V2) that already everything soddered with the exception of the switches. I made sure to prepare for this new build by practicing my soddering skills on my already fried PCB. After ~30 minutes of soddering while holding a flashlight with my mouth, my MacroPad was finally ready. I was able to customize each key to my liking using the same application that I used on my keyboard ([VIA]()).

VIA Application used to edit the key bindings of keyboard and MacroPad