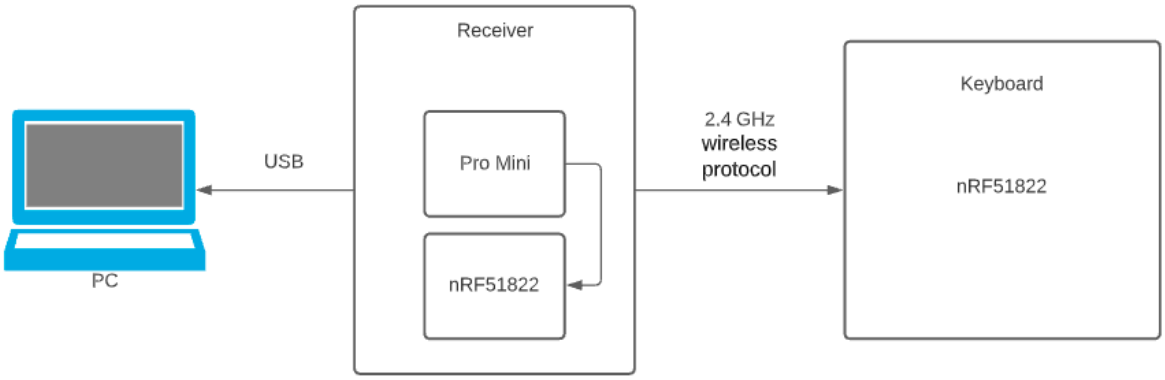
Custom Mechanical Keyboard

System architecture



1. Keyboard

This will be a single pcb containing an nRF51822 based wireless module soldered ontu it. The nRF51822 is based module chosen should have all the nRF51822 pins broken out(example: https://www.waveshare.com/core51822-b.htm) to enable the use of all necessary gpio pins to be used as you matrix has 15 columns and 5 rows and there are 31 GPIOs communication with the receiver is via 2.4 GHz RF protocol. This pcb should have a programming header for flashing firmware to the module.

2. Receiver

This will be an interface PCB, a Pro Micro, and an identical wireless module as the keyboard. All the wireless functionality is handled by the modules firmware thus it will be completely compatible with QMK. This pcb should also have a programming header for flashing firmware to the module.

Firmware programming

Programming/debugging will be done using a ST-LINK V2 and OpenOCD.