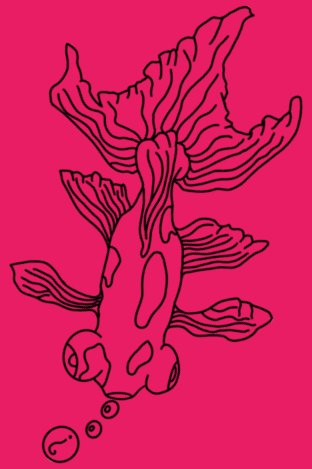
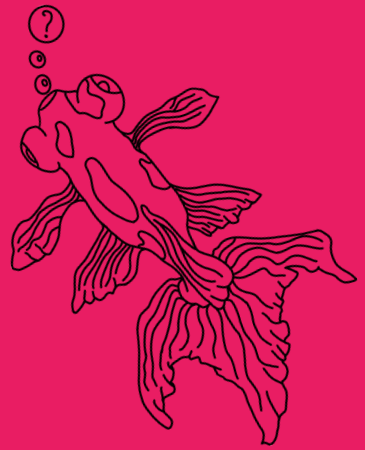


PoorKoi

Build Guide



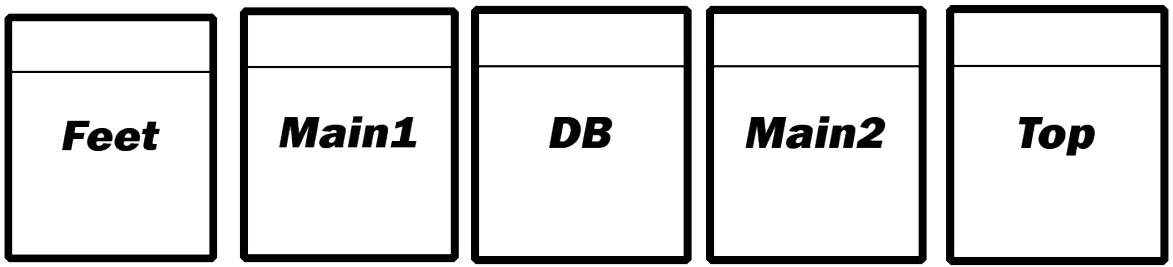
HLB
MECHANICAL KEYBOARD

3™
www.pegi.info

Step 0 : kit content

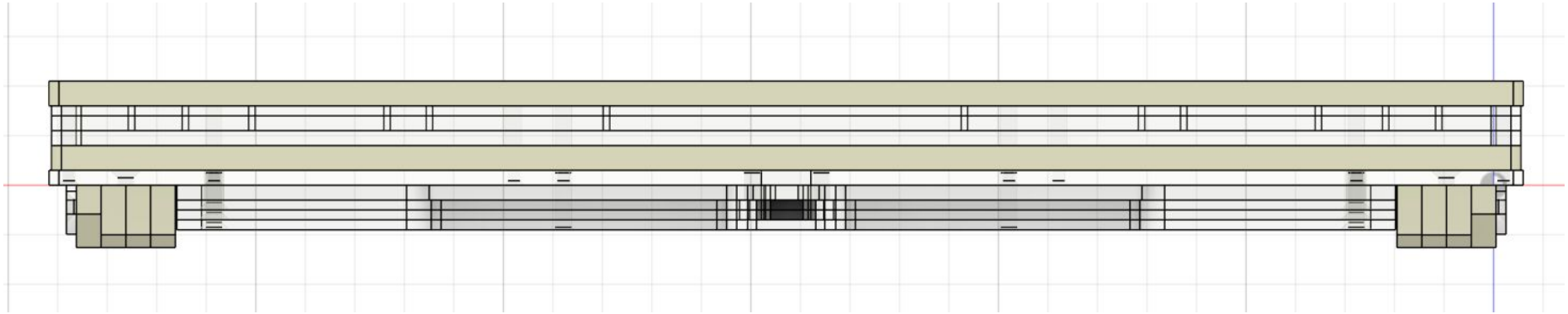
You will find in this kit:

- Acrylic layers with 3 clear tops and 3 frosted ones
- A white solder PCB (WK/WKL/HHKB | Split backspace/Iso Enter/Split leftshift/Split spacebar)
- A C5 daughterboard
- Screws:
  - 1 x Feet : screws for feet
  - 1 x Main 1 : screws for main acrylic layer
  - 1 x Main 2 : screws for usb stack
  - 1 x DB : screws for daughterboard
  - 1 x Top : screws for top stack
  - 1 x Bonus : spare screws
- Goodies ! 🙂



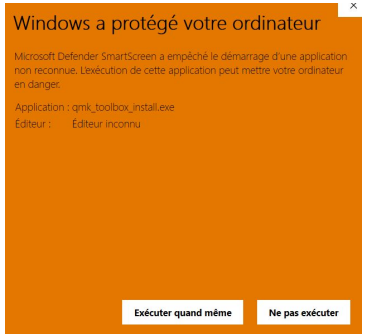
Step 0 : content

Kit is full of surprises with 24 simple configurations mixing frosted and clear parts. In white all the parts available in both variants. 🙂



Step 1 : qmk toolbox installation

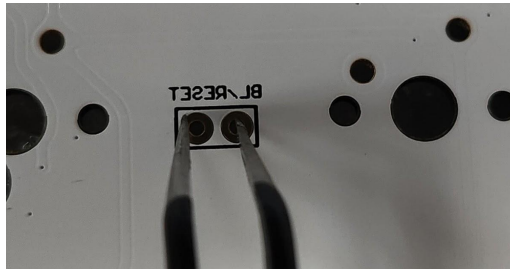
- PCB is empty of firmware, you will learn if not how to flash your PCB. Easy step no worries !
- Download **QMK Toolbox** here: https://github.com/qmk/qmk_toolbox/releases/download/0.3.3/qmk_toolbox_install.exe (latest version at the time of writing)
- You can trust the installer, the warning is related to missing certificate
- Once installed, please launch as administrator
- Click on ***Tools\Install drivers*** and wait the console closing by itself

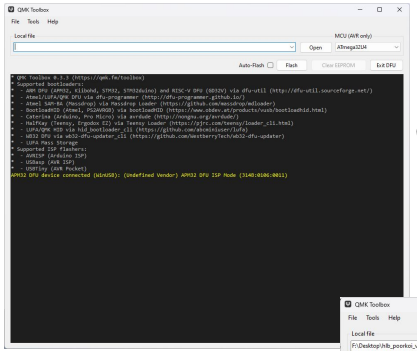


Step 1 : firmware flashing

- Run **QMK Toolbox**
- Connect daughterboard to PCB with JST cable
- Plug daughterboard to computer
- Get latest PoorKoi's firmware here : https://github.com/H3lli0n/PoorKoi
- Firmware is inside subfolder ***«firmware»***
- Use your tweezer to short the 2 pins of **RESET** (1)
- A yellow message appears in QMK Toolbox
  - PCB is in debug mode ready to flash (2)
  - Remove tweezer
- Load .bin file and press flash
- Wait until the end of process (3)
- Once firmware is flashed you can unplug daughterboard and close qmk toolbox

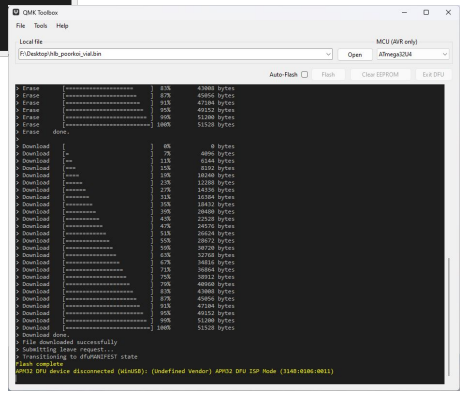
1





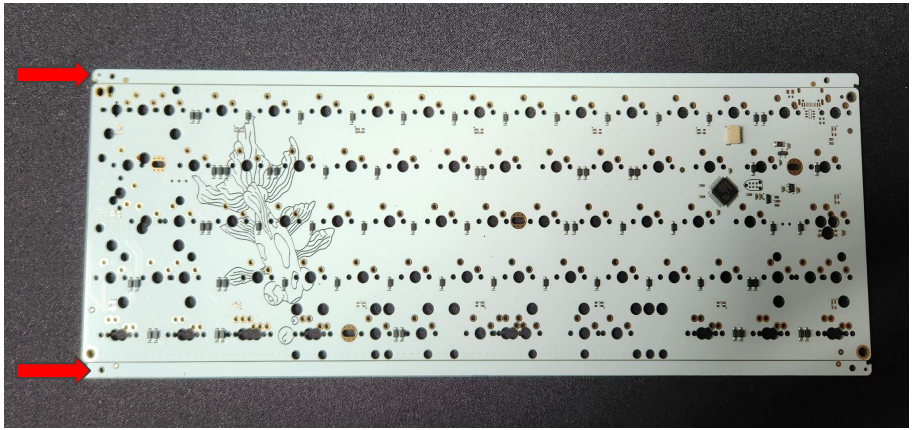
2

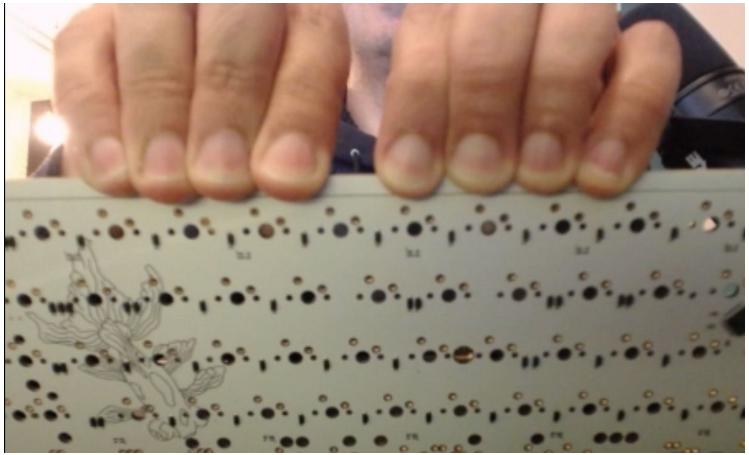
3



Step 2 : check PCB

- PCB is made with a panelization layout around the wider edges
- Those parts must be removed by hand or with a plier. Break those parts using the cut line





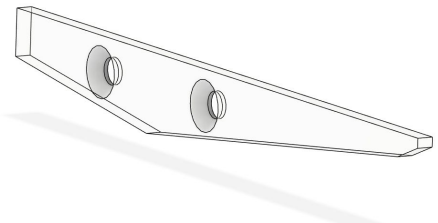
Step 2 : check PCB

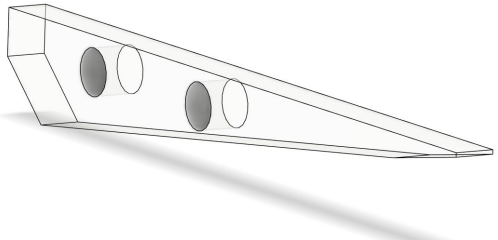
- To test PCB we will use https://config.qmk.fm/#/test because VIAL requires to unlock PCB and without switches it’s a dual tweezers process
- Plug daughterboard
- User your tweezer to test each switch contact holes. Everyone must answer except MO(1) located at the right of right shift
- Once PCB is checked you’re free to solder or mill-max your PCB
  - *PCB supports underglow RGB but due to some issue during order, you have to solder the led included in the kit. Please read carefully the disclaimer on the main git repo webpage*.
  - Lube and test your stabilizers
  - Insert switches on the plate and clip on PCB
  - PCB supports caps lock LED think about it before soldering !
  - Solder your switches if required

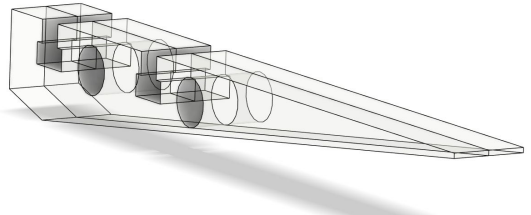
Step 3 : feet

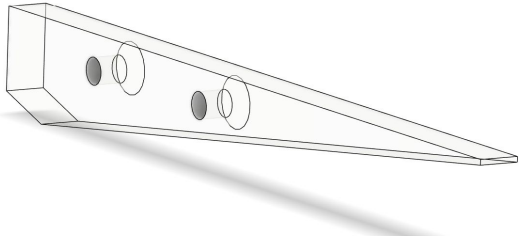
Feet

Example of left foot acrylic layers (left and right are distinct by milling)



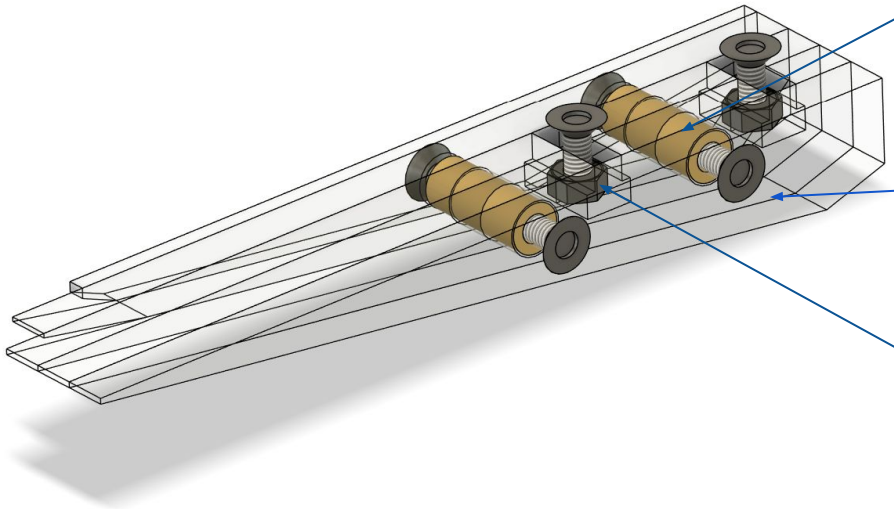






Step 3 : feet

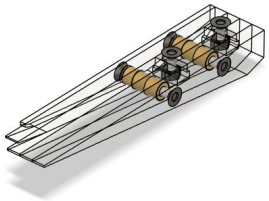
Feet are symmetrical

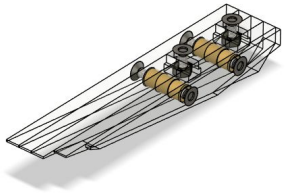


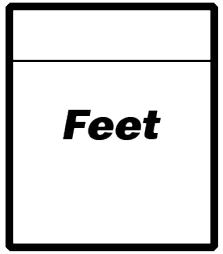
Feet

Step 3 : feet

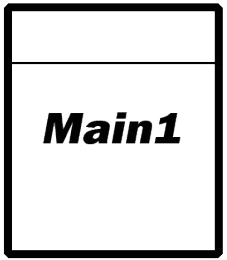
Feet should look like this







Step 4 : bottom stack

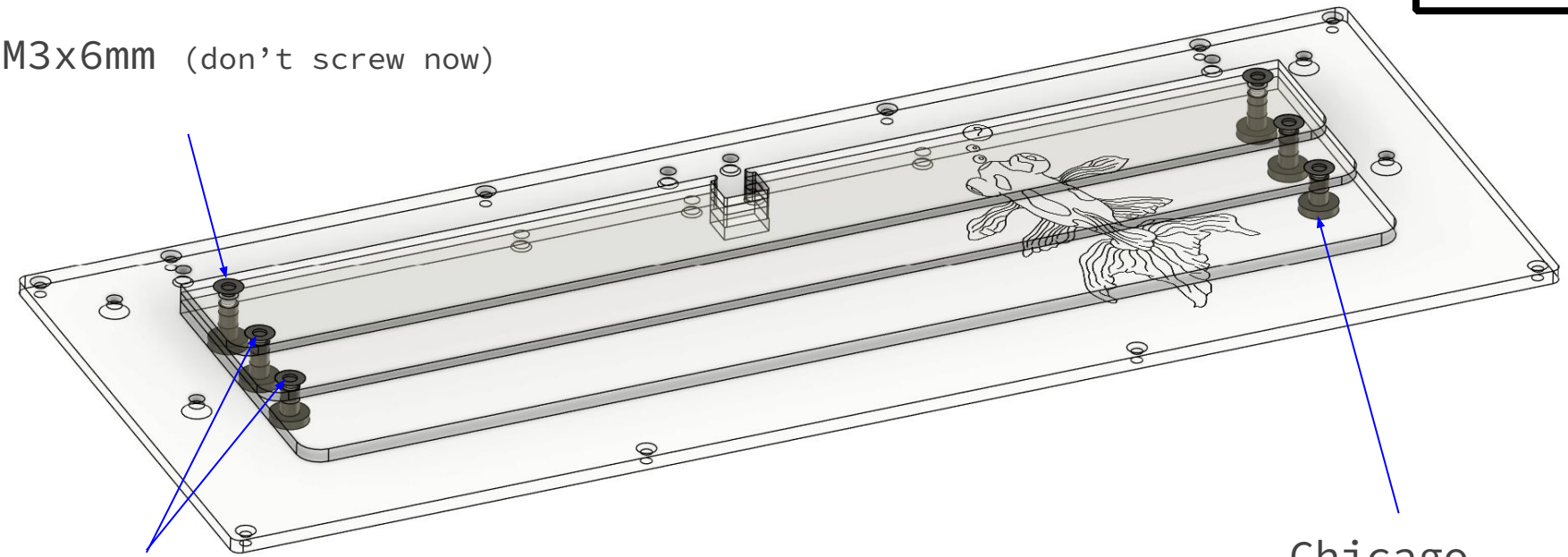


- Use Chicago screws head down
- Put the main acrylic layer with koi fish
  - Use picture on next page
- Put the other 3 acrylic layers to match next picture

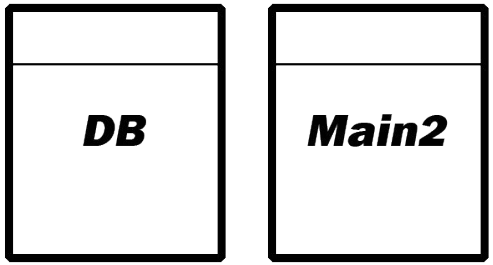
Step 4 : bottom stack

Main1

M3x6mm (don't screw now)



Step 4 : bottom stack



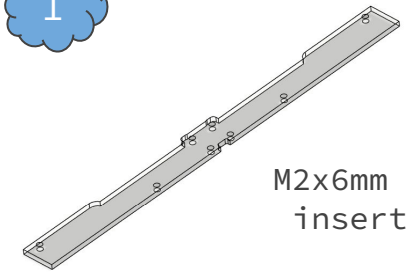
- Plug JST cable to daughterboard
- Insert JST through the main acrylic layer
- Setup countersunk M2 screws and insert and put them on table, screw head down. Insert acrylic layers
- Use M2x3mm screws to secure daughterboard
- Stack halves acrylic layers around the daughterboard and final layer as shown on next picture
- Screw everything to secure bottom stack

Step 4 : assembler la stack

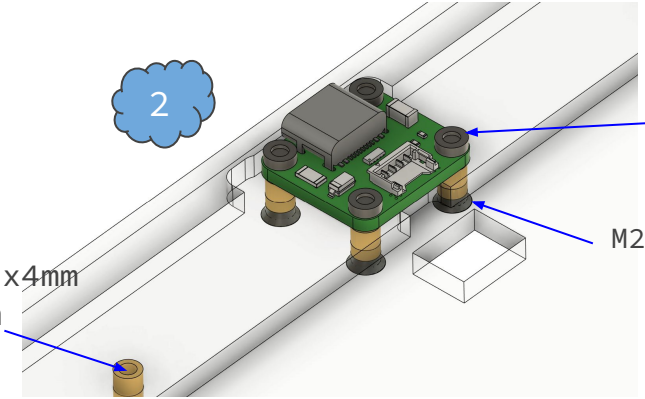
DB

Main2

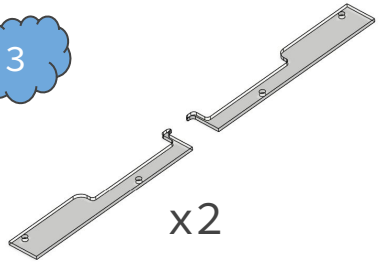
1



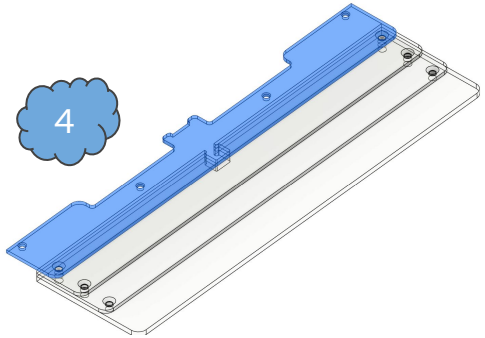
2



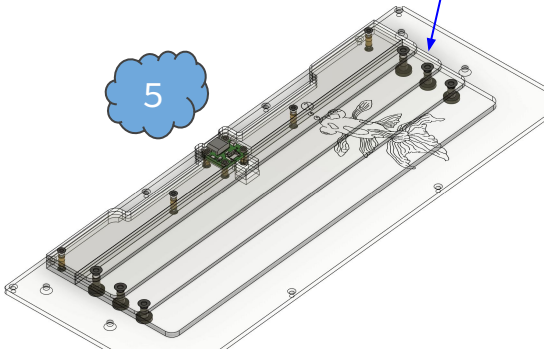
3



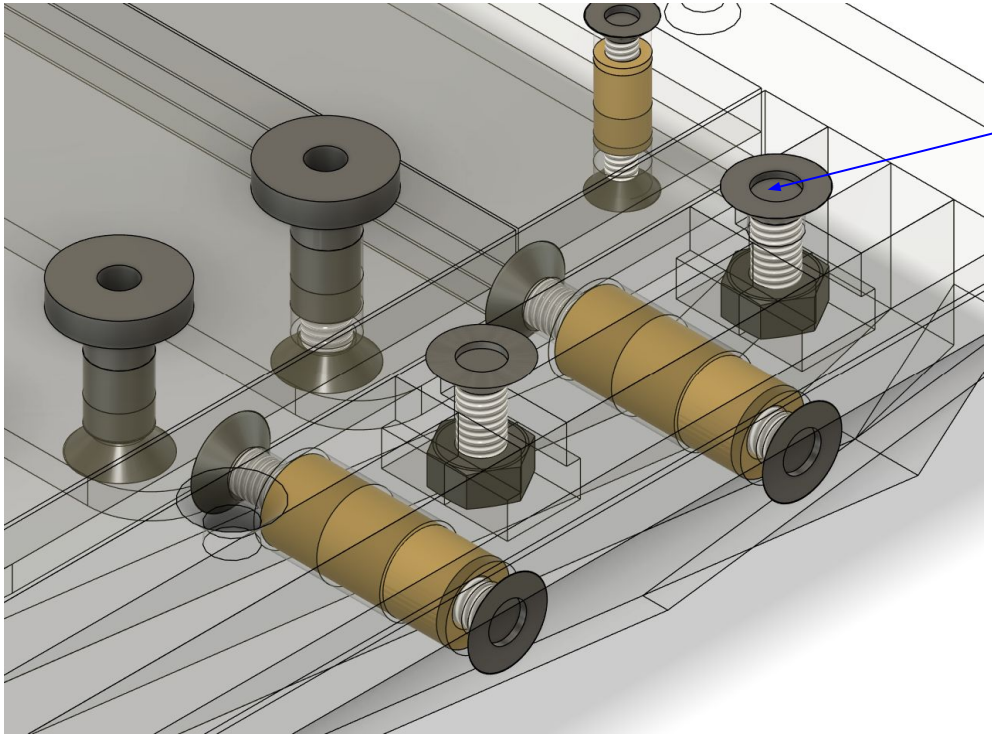
4



5



Step 5 : feet assembly



M3x8mm

Screw carefully - not too tight !!

Feet

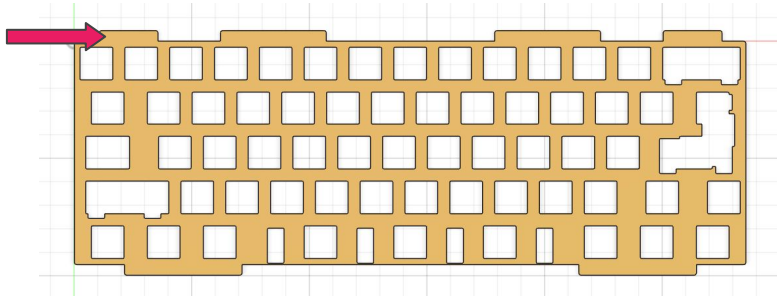
Step 6 : gaskets

Gaskets sizes are :

- Top : 25 mm / 45 mm / 45 mm / 25 mm
- Bottom : 50mm / 50 mm

Just install gaskets on plate on both sides

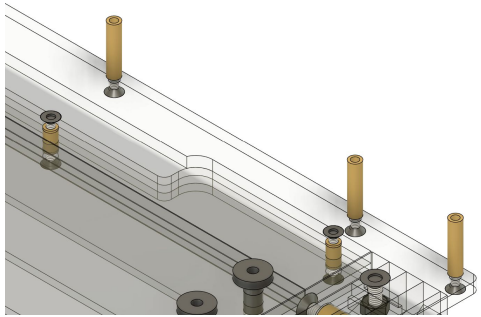
gasket area

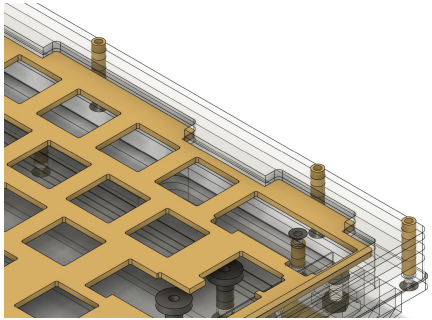


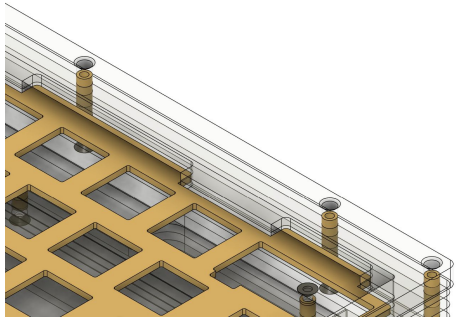
Step 7 : top stack

Top

- Setup M2x14mm inserts with M2x8mm screws by fixing them on main layer
- Add in the order below
  - 5mm clear or the frosted bonus one 🙂
  - 2 x 3mm layers
  - Plate
  - 2mm layer
  - Top WK/WKL/HHKB in clear or frosted as you like 🙂







Step 7 : top stack

Top

- Finish with the M2 torx screws
- Your PoorKoi is now finished !!