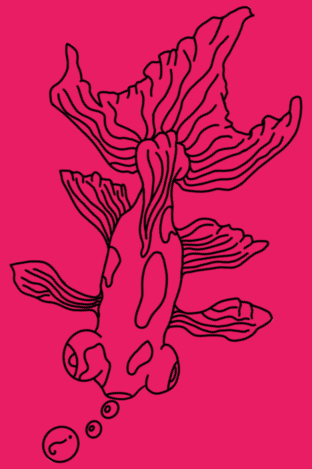
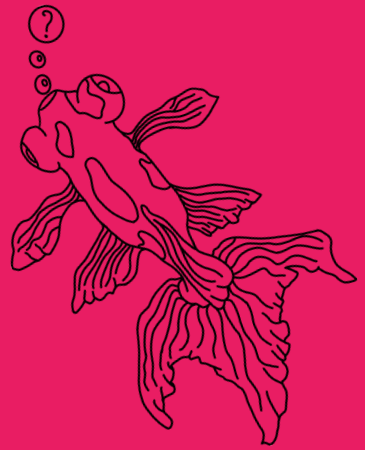


PoorKoi

Build Guide



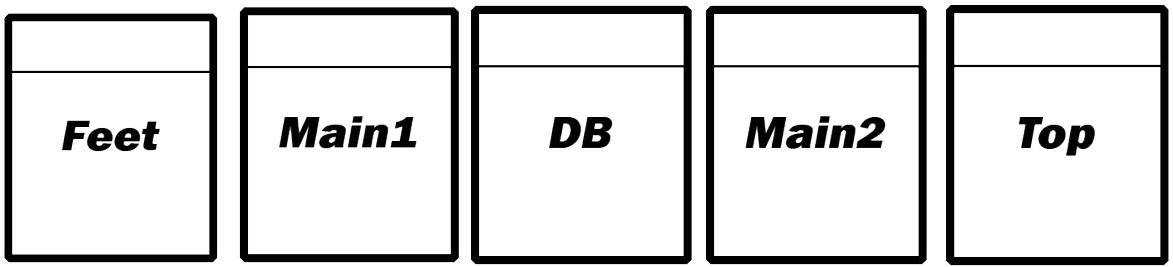
HLB
MECHANICAL KEYBOARD

3™
www.pegi.info

Step 0 : kit content

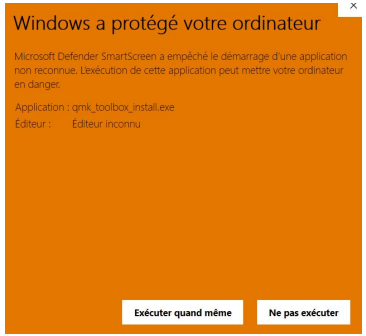
You will find in this kit:

- 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



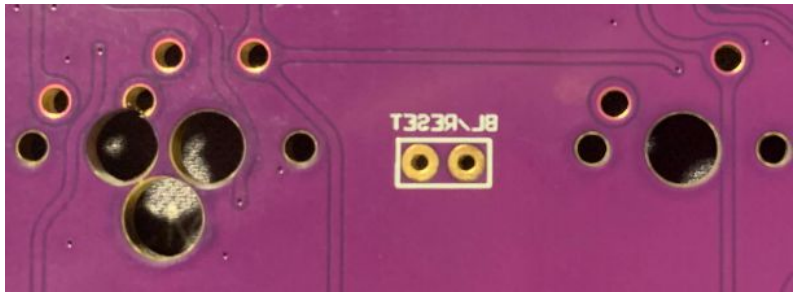
Step 1 : qmk toolbox installation

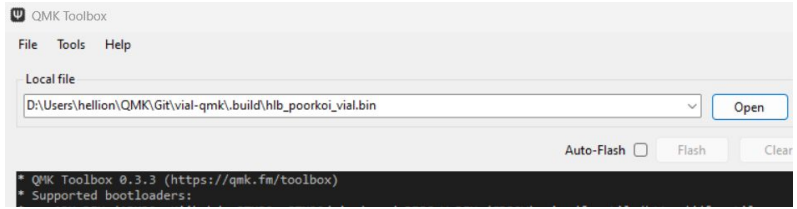
- PCB is empty of firmware, you will learn if not how to flash your PCB. Easy step no worries !
- Download **QMK Toolbox** here: https://github.com/qmk/qmk_toolbox/releases/download/0.3.3/qmk_toolbox_install.exe (latest version at the time of writing)
- You can trust the installer, the warning is related 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**
- A yellow message appears in QMK Toolbox
  - PCB is in debug mode ready to flash
  - Remove tweezer
- Load .bin file and press flash
- Wait until the end of process
- Once firmware is flashed you can unplug daughterboard and close qmk toolbox





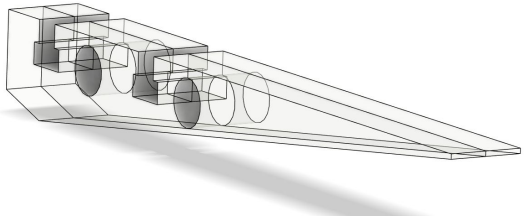
Step 2 : check PCB

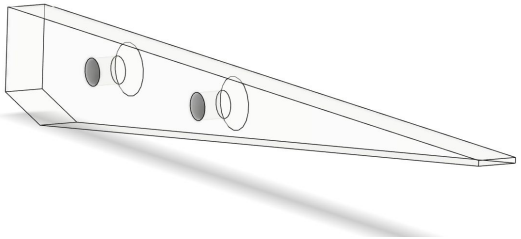
- To test PCB we will use https://config.qmk.fm/#/test because VIAL requires to unlock PCB and without switches it’s a dual tweezers process
- Plug daughterboard
- Put sunglasses and flip PCB :)
- User your tweezer to test each switch contact holes. Everyone must answer except MO(1) located at the right of right shift
- Once PCB is checked you’re free to solder or mill-max your PCB
  - 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

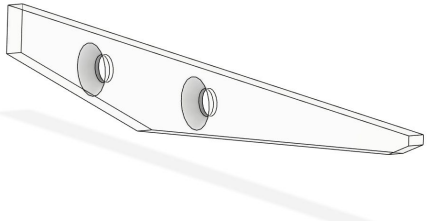
Step 3 : feet

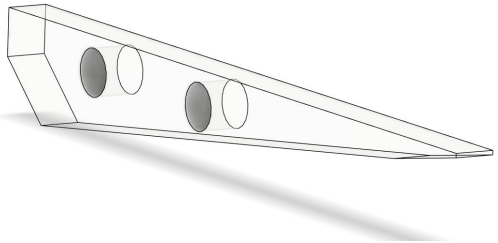
Feet

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



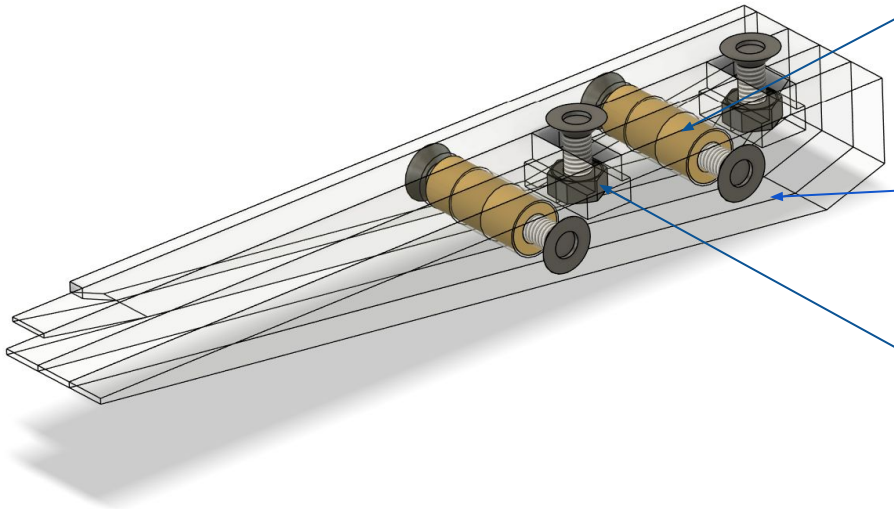






Step 3 : feet

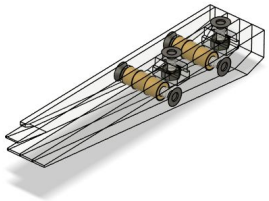
Feet are symmetrical

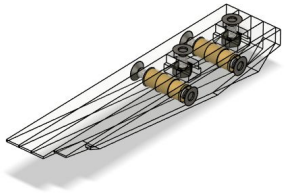


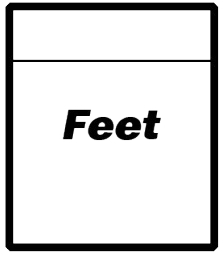
Feet

Step 3 : feet

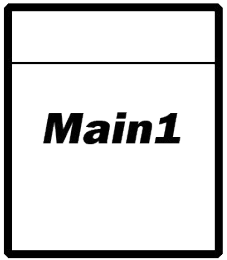
Feet should look like this







Step 4 : bottom stack

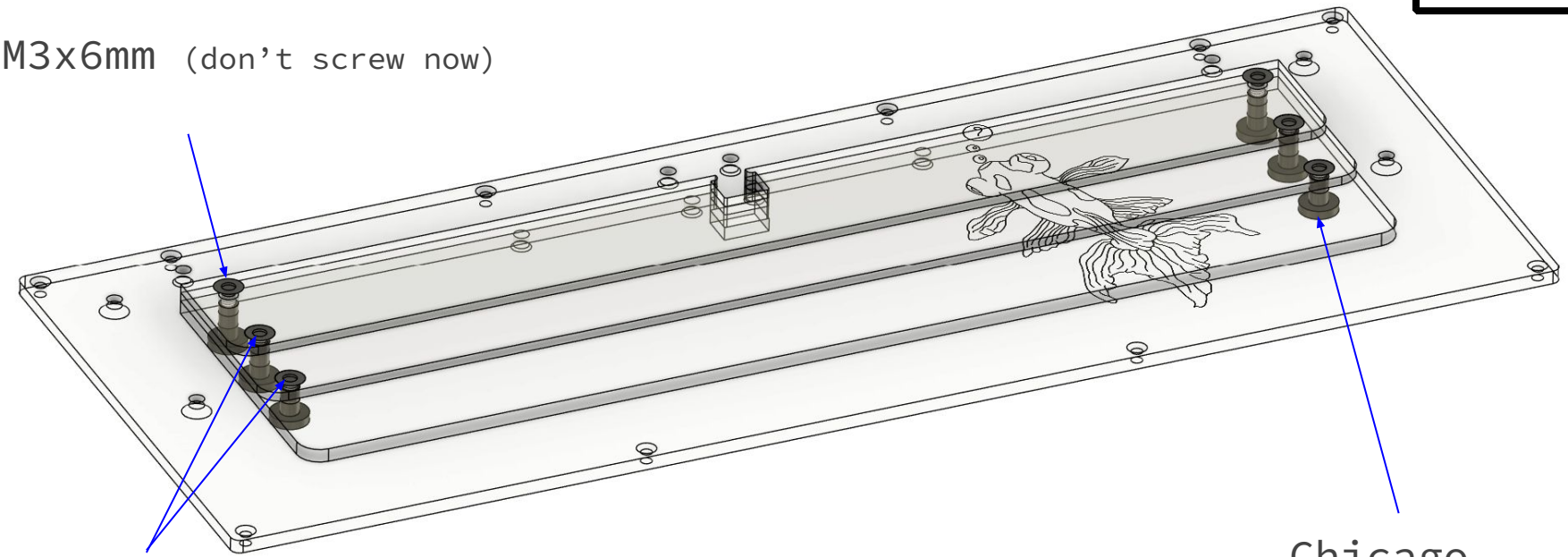


- Use Chicago screws head down
- Put the main acrylic layer with koi fish
  - Use picture on next page
- Put the other 3 acrylic layers to match next picture

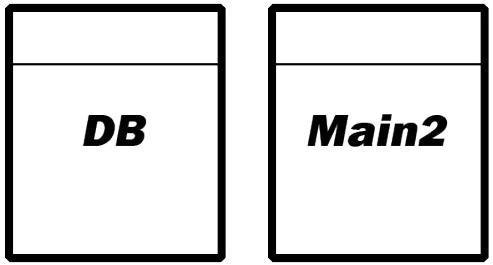
Step 4 : bottom stack

Main1

M3x6mm (don't screw now)



Step 4 : bottom stack



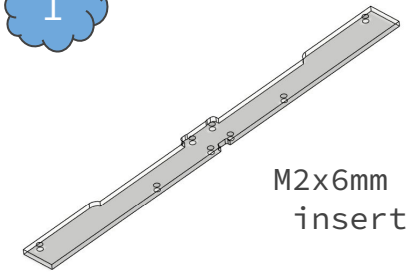
- Plug JST cable to daughterboard
- Insert JST through the main acrylic layer
- Setup countersunk M2 screws and insert and put them on table, screw head down. Insert acrylic layers
- Use M2x3mm screws to secure daughterboard
- Stack halves acrylic layers around the daughterboard and final layer as shown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

Step 4 : assembler la stack

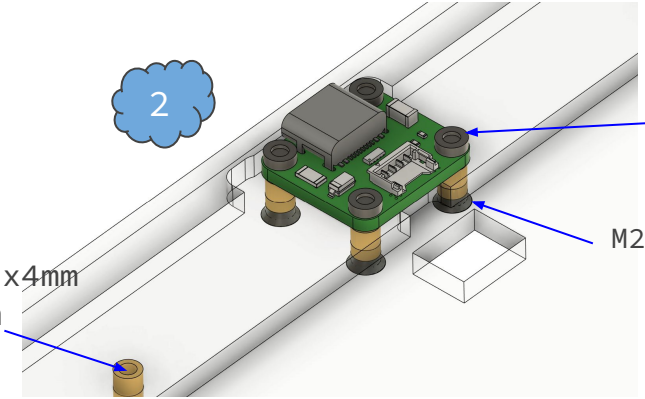
DB

Main2

1



2



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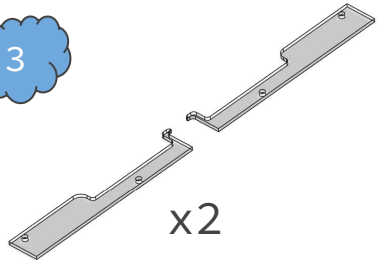

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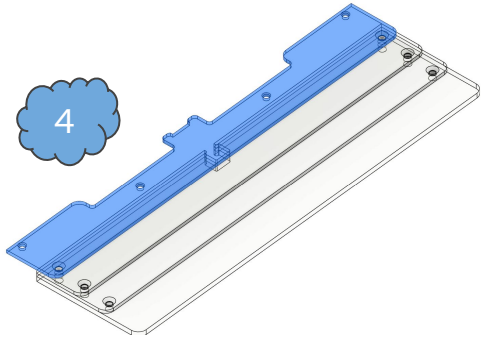
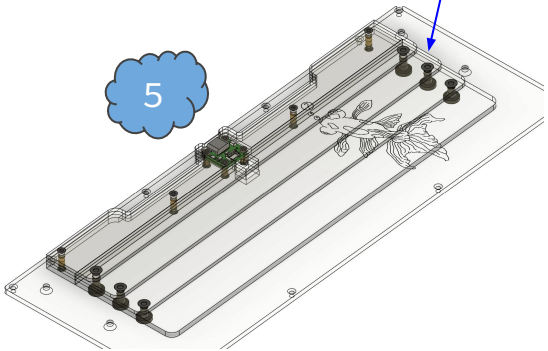
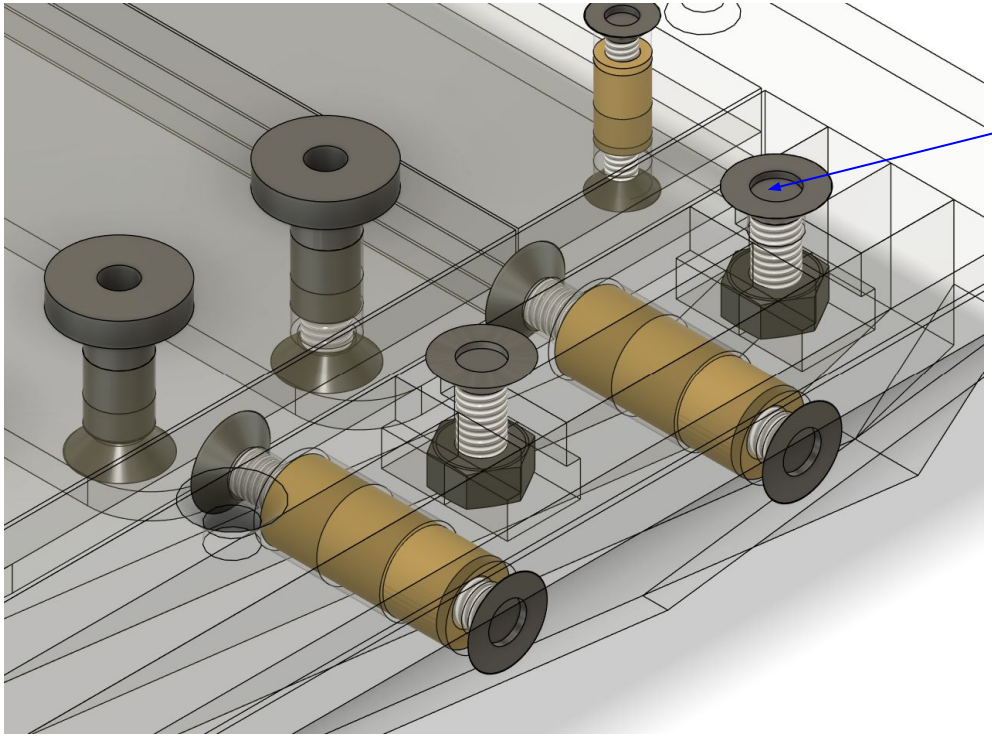


5



Step 5 : feet assembly



M3x8mm

Screw carefully - not too tight !!

Feet

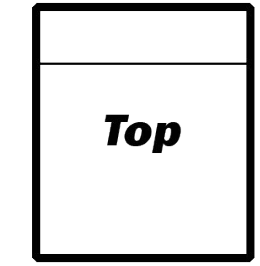
Step 6 : gaskets

Gaskets sizes are :

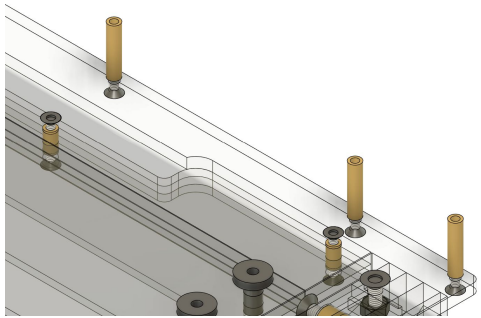
- Top : 25 mm / 45 mm / 45 mm / 25 mm
- Bottom : 50mm / 50 mm

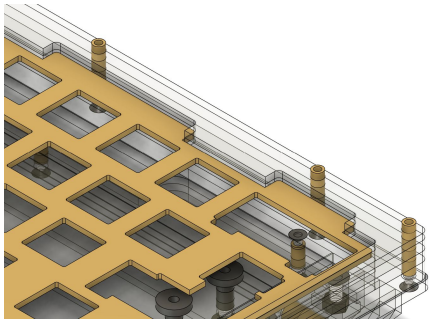
Just install gaskets on plate on both sides

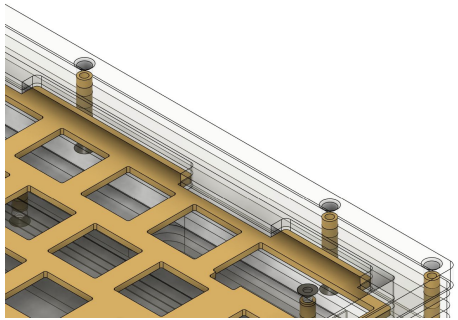
Step 7 : top stack



- 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 !!