

Gaming your System

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BIM Manager - Project Captain





Michael Freiert...

...likes to learn new things

....has many hobbies, had a few professions, and is a strong believer in cross discipline problem solving. He has worked in ACAD since R12, Revit since 6.1, and has learned a bunch of things different places which has resulted in a preference for using apt, if sometimes unconventional tools.

Objectives

- Learn to simplify complex, repetitive or common tasks with Macros.
- Learn about hardware that can use Macros with Design Software
 - Gaming peripherals
 - Mechanical keyboards
- Look at these tools potential limitations in a corporate environment.

How did I get here?

COMPUTER GAMES...

Rogue, Lode Runner, Dune, King's Quest, Nethack,
Command & Conquer, Warcraft II, Starcraft,
Everquest....

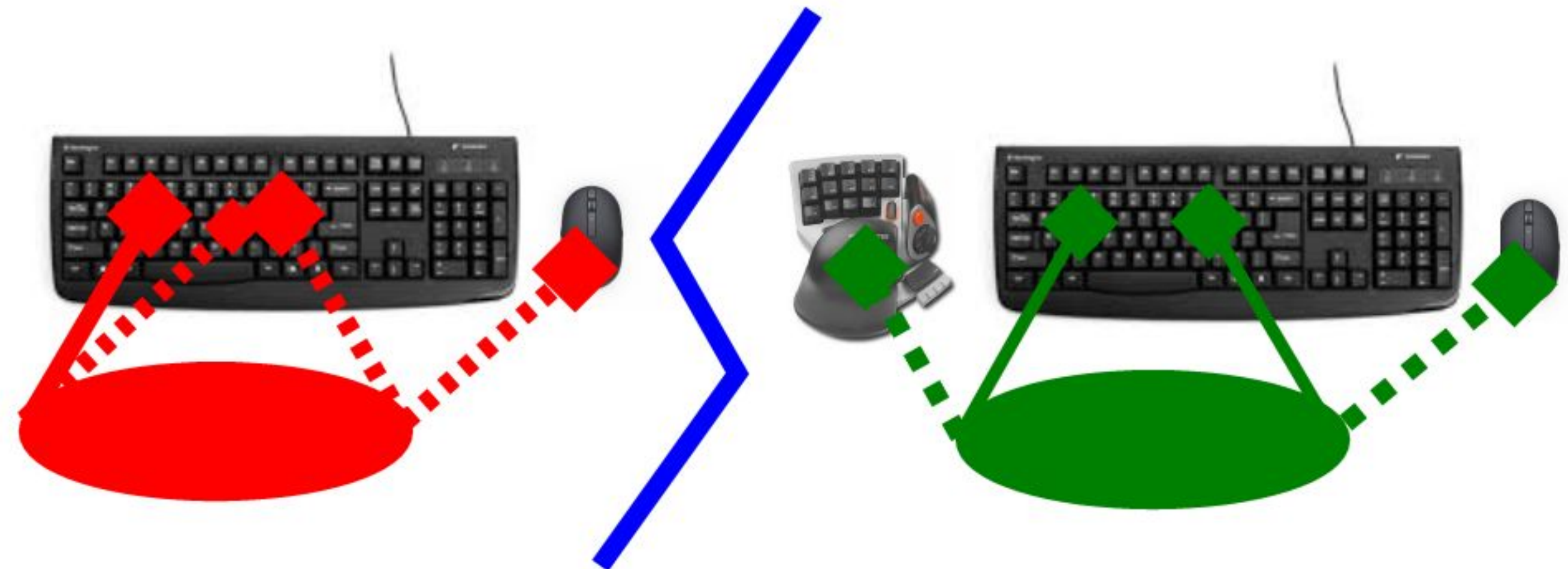


How did I get here?

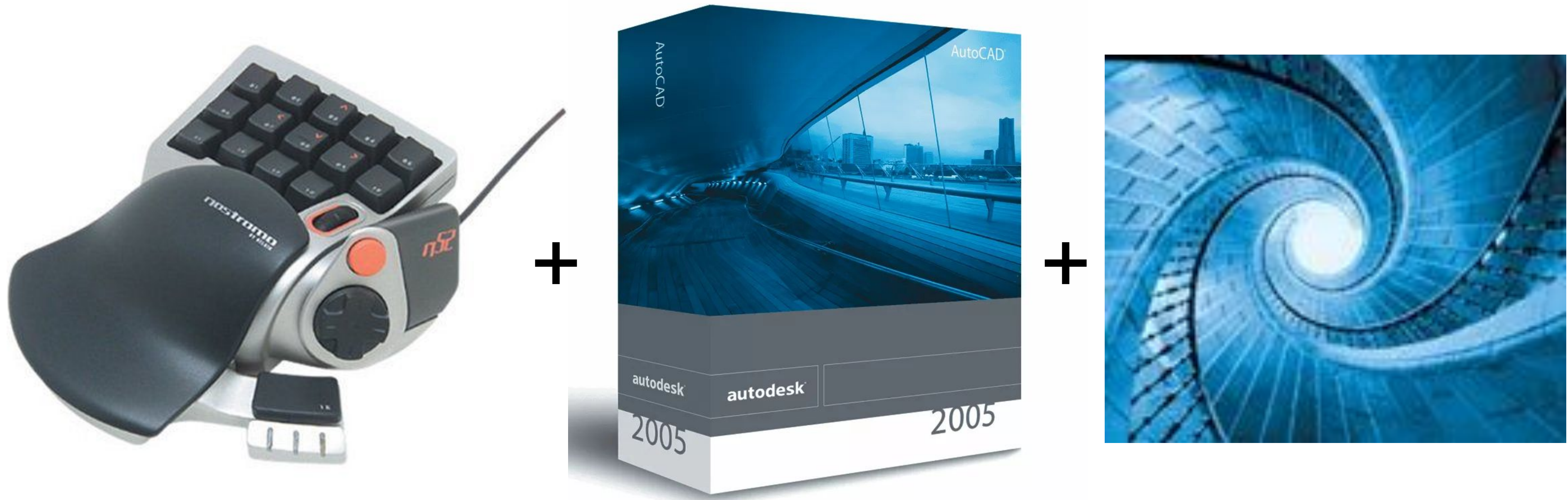
COMPUTER GAMES...

Rogue, Lode Runner, Dune, King's Quest, Nethack,
Command & Conquer, Warcraft II, Starcraft,
Everquest....

& ERGONOMICS



It seemed like a good idea...



Macros

One key press to do complex things

- Enter text
- Enter commands
- Enter several commands
- Repeat complex Mouse input
- ★ Dynamic - record and playback inputs

HID

Software and hardware in combination

- Mice
- Keyboards
 - Gamepads
 - Macropads
- Lots of other devices



Gaming devices



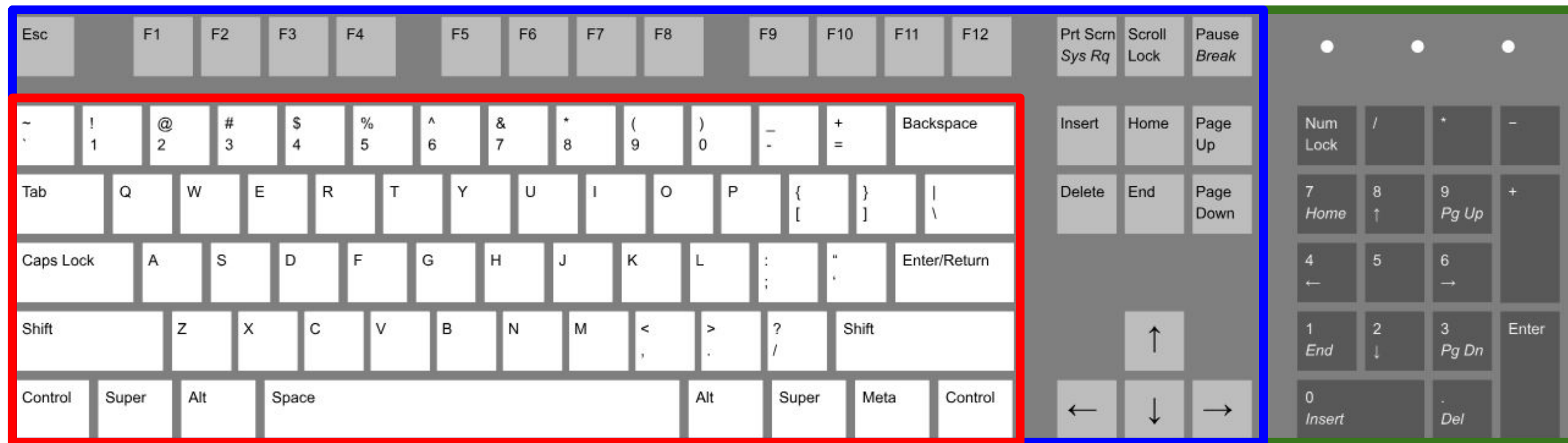
Mechanical Keyboards

We don't (really) care that they're mechanical.

We want to program them to do stuff other than merely type.

Most programmable keyboards use mechanical switches.

Keyboard Layouts



ANSI

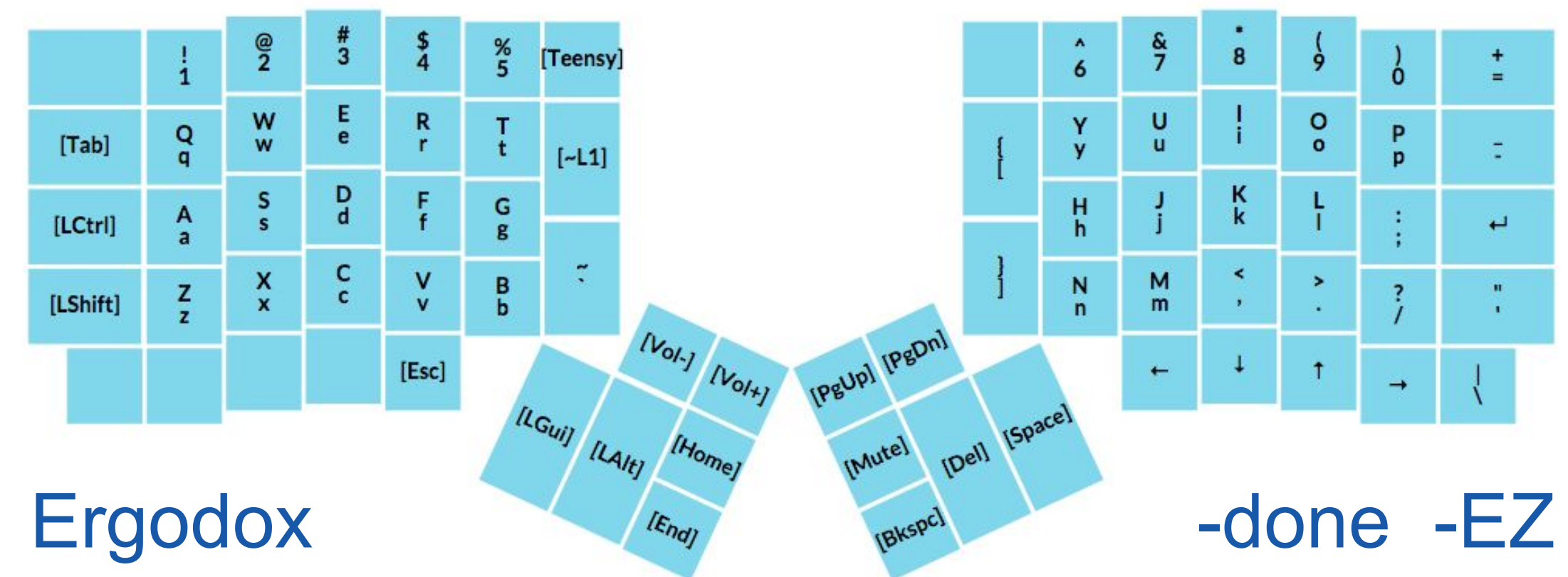
60% 80% TKL

100%

ISO



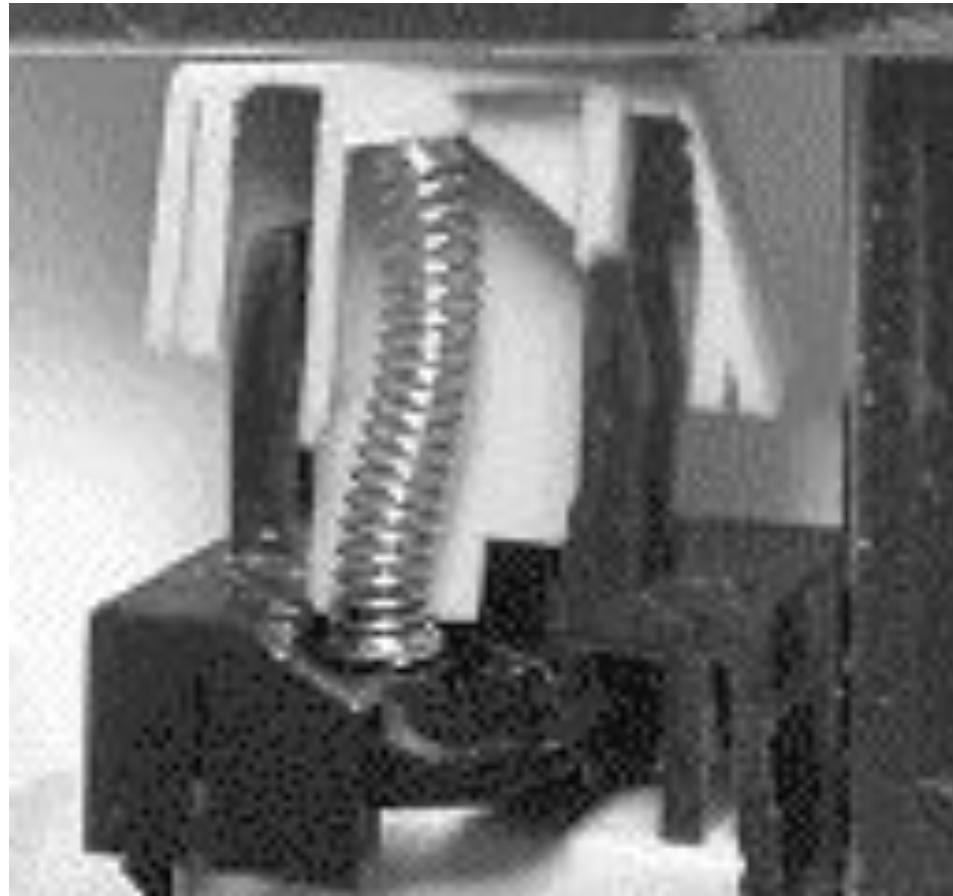
Ortholinear - Planck



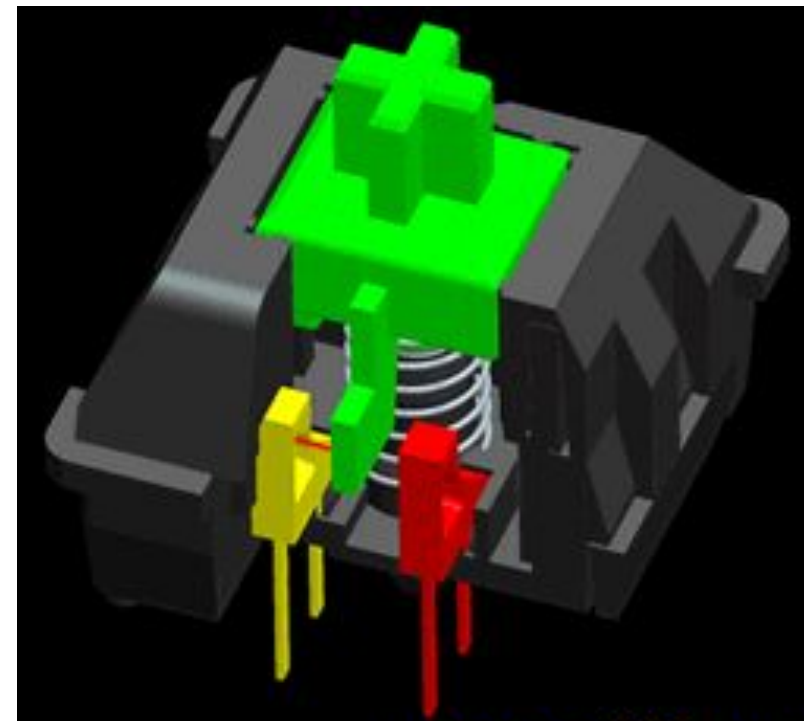
Ergodox

-done -EZ

Switches

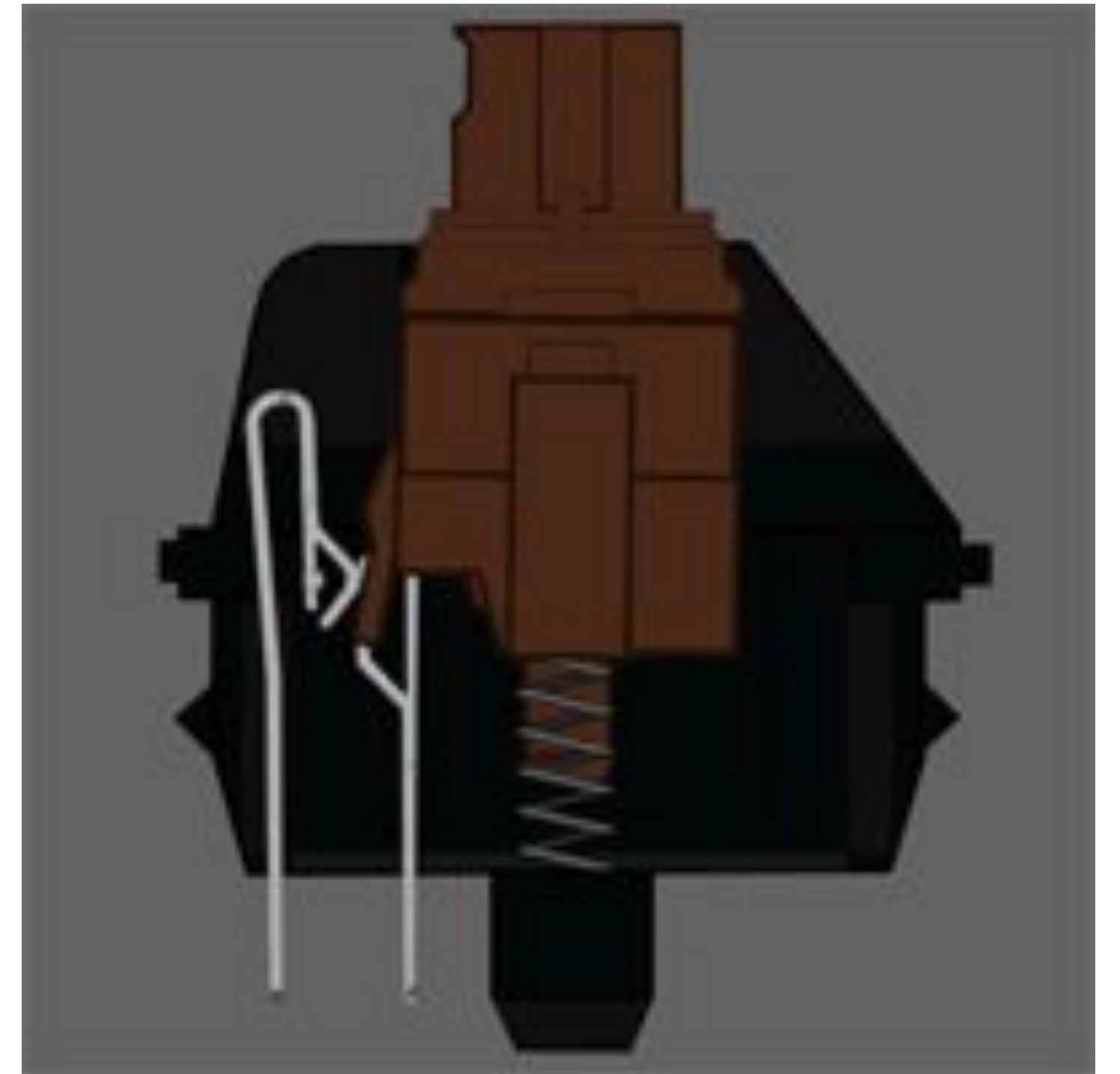


BUCKLING SPRING



INFRA OPTICAL

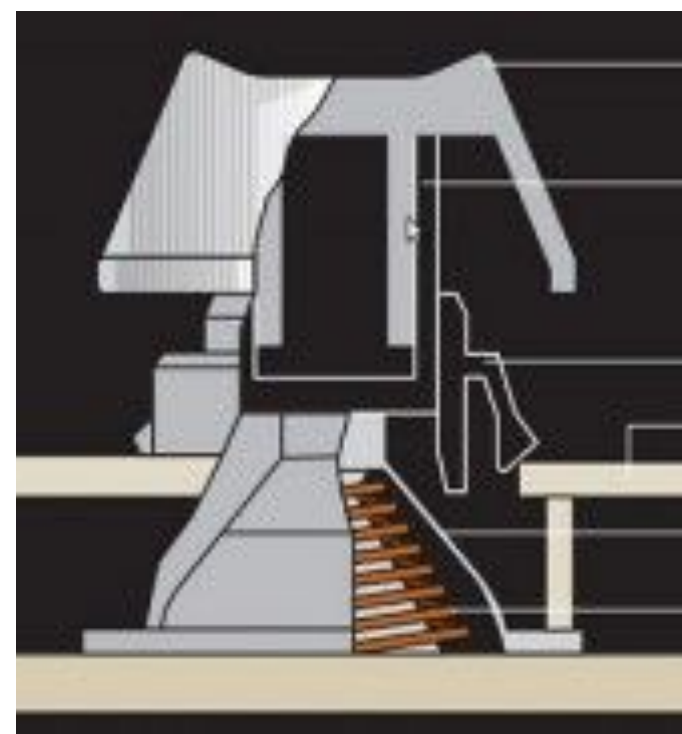
HALL EFFECT:
MAGNETS!



CHERRY MX



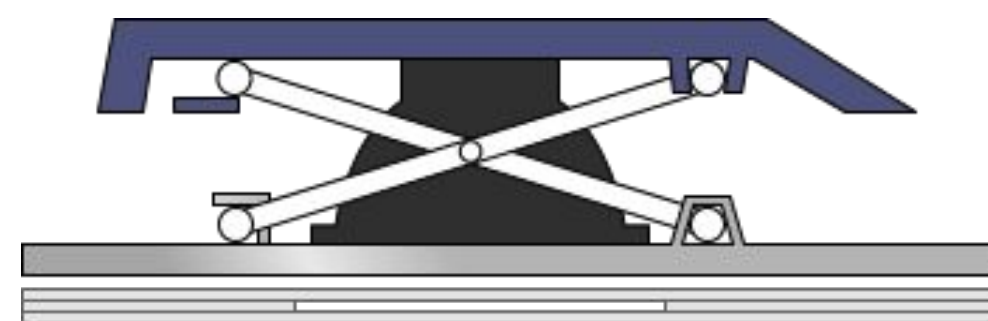
MEMBRANE



TORPRE



ROMER G



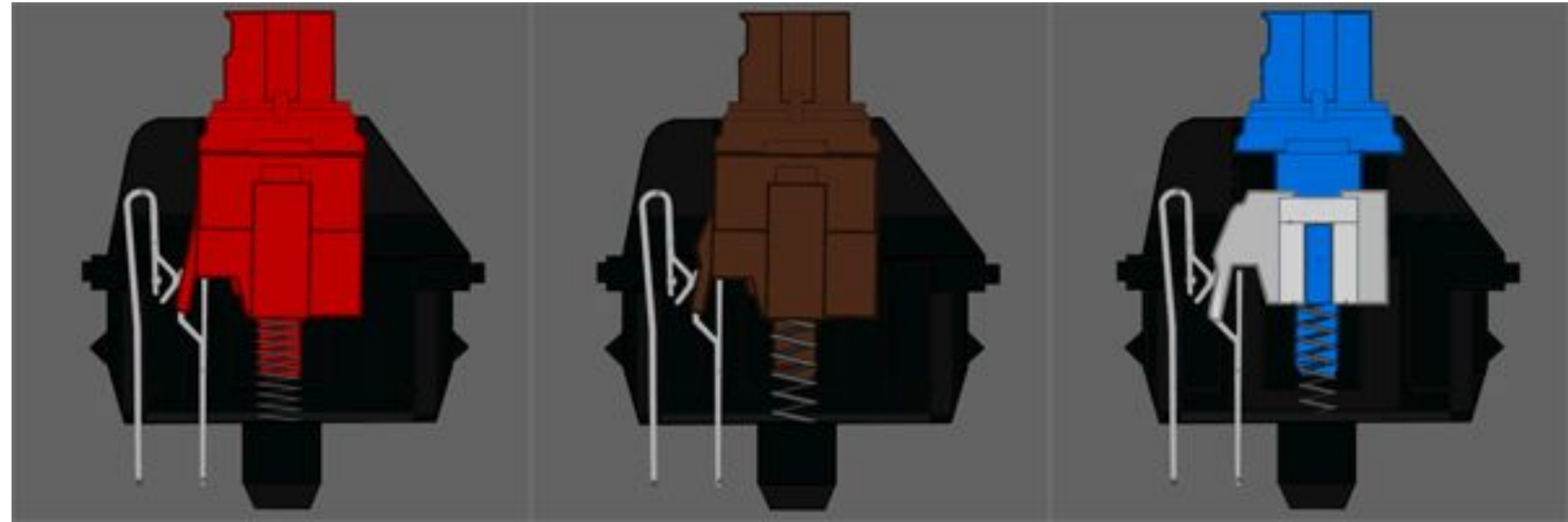
SCISSOR

MX Style Switches

Linear - Red, Black

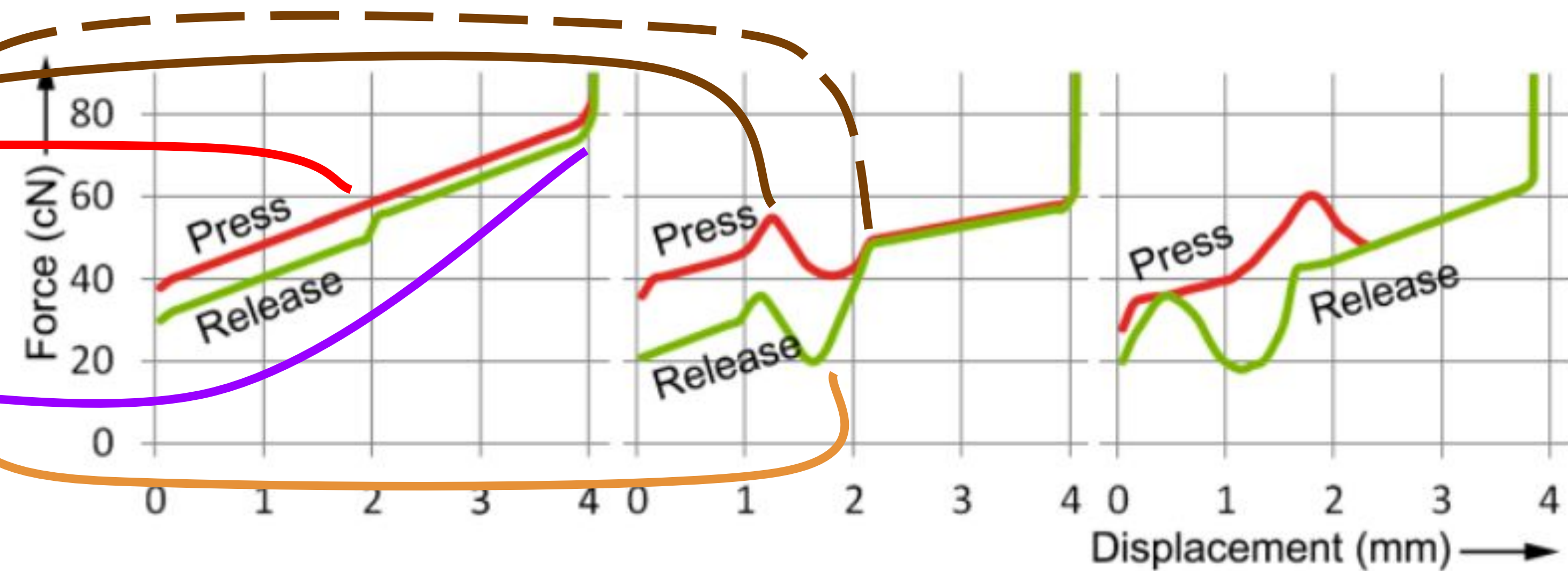
Tactile- Brown, "Clear"

Clicky - Blue, Green



Weight:

- Actuation
- Tactile
- Operating
- Bottom out
- Reset



My Desk



Razer Tartarus V2

KBDfans KBD75 R2

Roccat Leadr

Ducky Pocket

Corsair Void Pro RGB

Commands & Layers



Layer 0

Red Layer

Blue Layer

Green Layer

Frequent commands

Copy/Paste & Secondary

Numberpad

Text Notes

Thumb:

Scroll Press

Thumb Space

Thumb Hyper

D-Pad

Blue Lock (toggle)

Red Shift (momentary)

Green Shift (momentary)

Arrow Keys

Gaming Device Managers

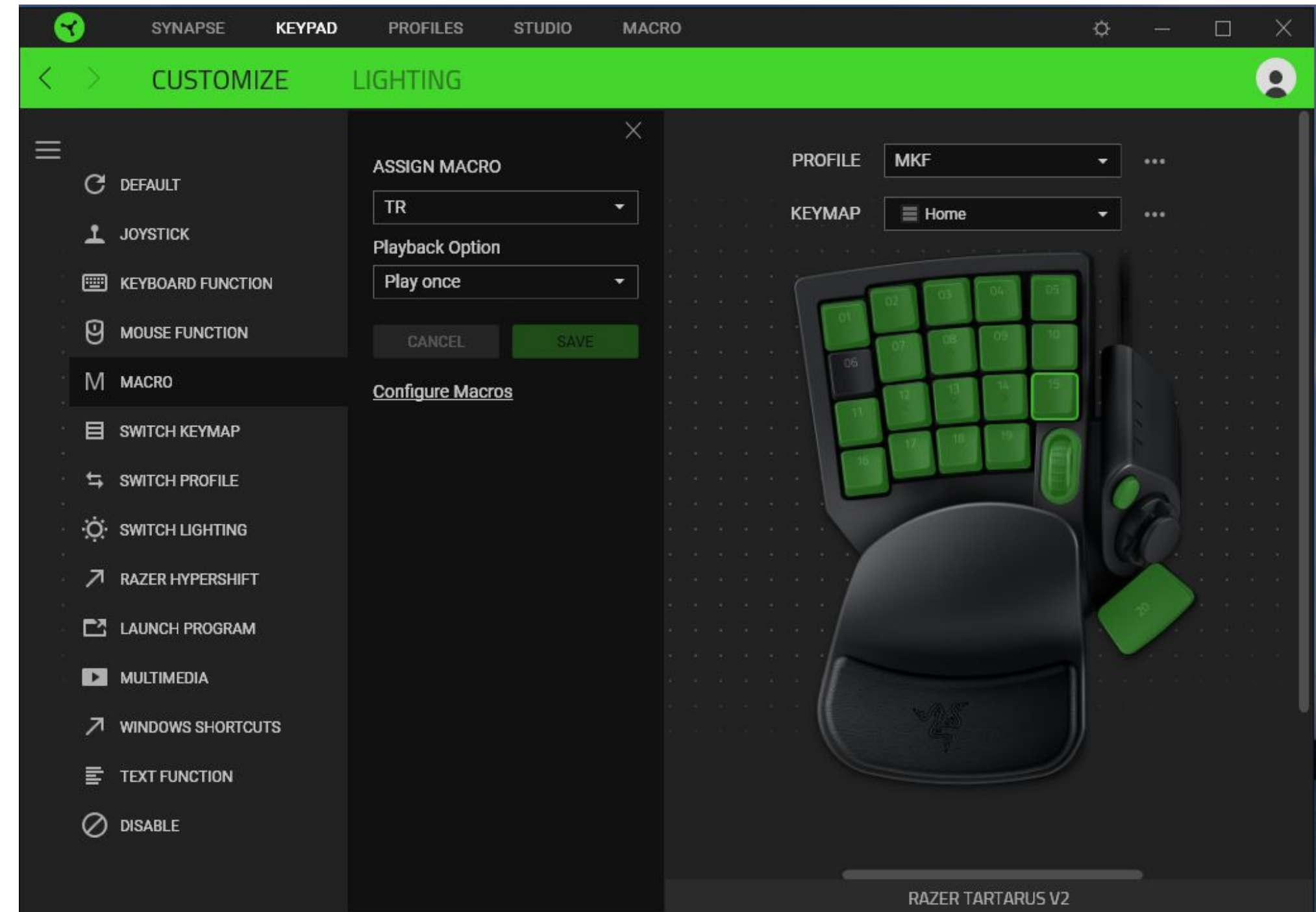
Software - Manages inputs to OS from attached HID

Intercept - translator:

- takes signal from recognized HID
 - software provides HID/Macro input to OS
- must be present and active on CPU/OS
- devices may be “plain” keyboard without intercept

Programmer:

- reconfigures proprietary HID
 - device provides HID/Macro directly
- may be required to be present and active on CPU/ OS
- required to program device



Programmable keyboards

SOFTWARE PROGRAMMED

- Software is similar to device manager software
- Software needed on one computer

1. Set up behavior in software
2. “Flash” programming to device(s)

HARDWARE (INTERNAL) PROGRAMMED

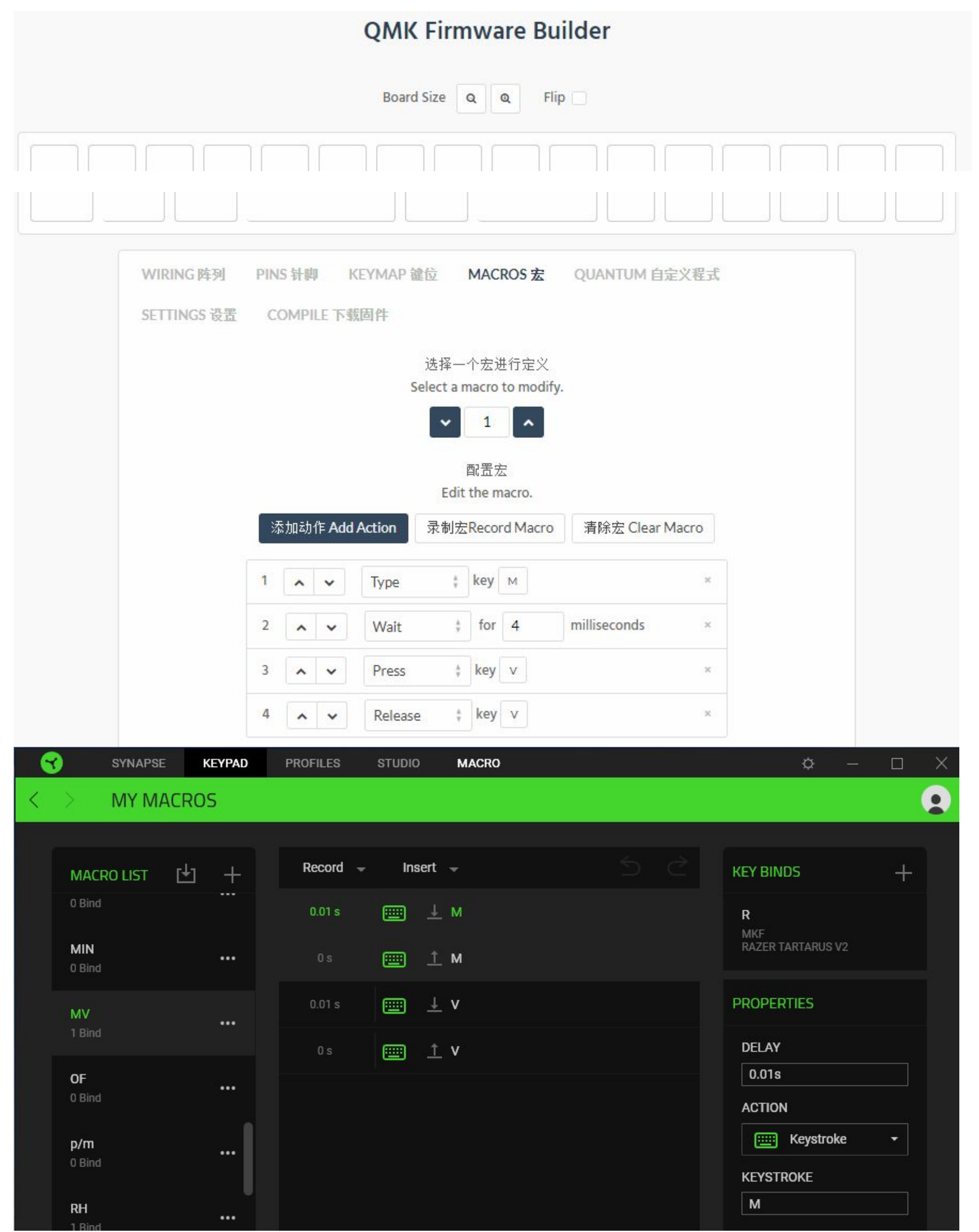
- Reprogram entirely on device
- Usually much more limited behavior

1. Enter programming mode
2. Enter keystroke unicode or type out macro

Setting up Macros

Enter actions individually, Record or Record and Edit

- “Type” single keypress & release
- “Press” depress and hold
- “Release” release held key
- “Wait” pause before next
- “Set Interval” stock time between actions



IT Problems and concerns

- Unapproved software
 - “portable” versions of software - if allowed
 - talk to IT - many devices are from reputable companies
- “beta” releases - can be buggy
 - save your profiles, layouts, macros and installers for roll back.
- User profiles - non-local issues
 - some manager software does not work well on network drives or mirrored user profiles
- Firewalls
 - some manager software downloads updates that are packaged as EXE files, which may be blocked.
 - identify files, download in approved fashion and install as approved.

Rehash

- simplify repetitive or common tasks with Macros
- by using HIDs to drive Design Software
 - Gaming peripherals
 - Mice
 - Gamepads
 - Mechanical keyboards
 - Macropads
 - 60%, TKL, Full, Ortho, Ergo
 - Keyboard shortcuts
- Problems and work arounds with IT department permissions

Thanks

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