



# AZERO

CYBORG

Manual

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## INTRODUCTION

The Azeron gaming keypad is a simple Plug-and-Play controller that sets up easily with our software. It can function as a joystick or as a keyboard or in hybrid mode.

The Azeron Cyborg keypad comes with 24 - 29 programmable buttons and an analog thumbstick for complete control and maneuverability over your game.

Its ergonomic wrist pad, adjustable key towers and adjustable thumb module delivers a perfect fit for your arm and minimized fatigue over extended gameplay.

The main advantage of the Azeron keypad is the ability to move in game character with one finger – the thumb (either in 360° mode or in WASD mode, depending what your game supports). All other fingers now can freely press other buttons while you are moving at the same time. The buttons are very easy to reach with a little flick of your finger, don't need to reach too far and stress your hand.

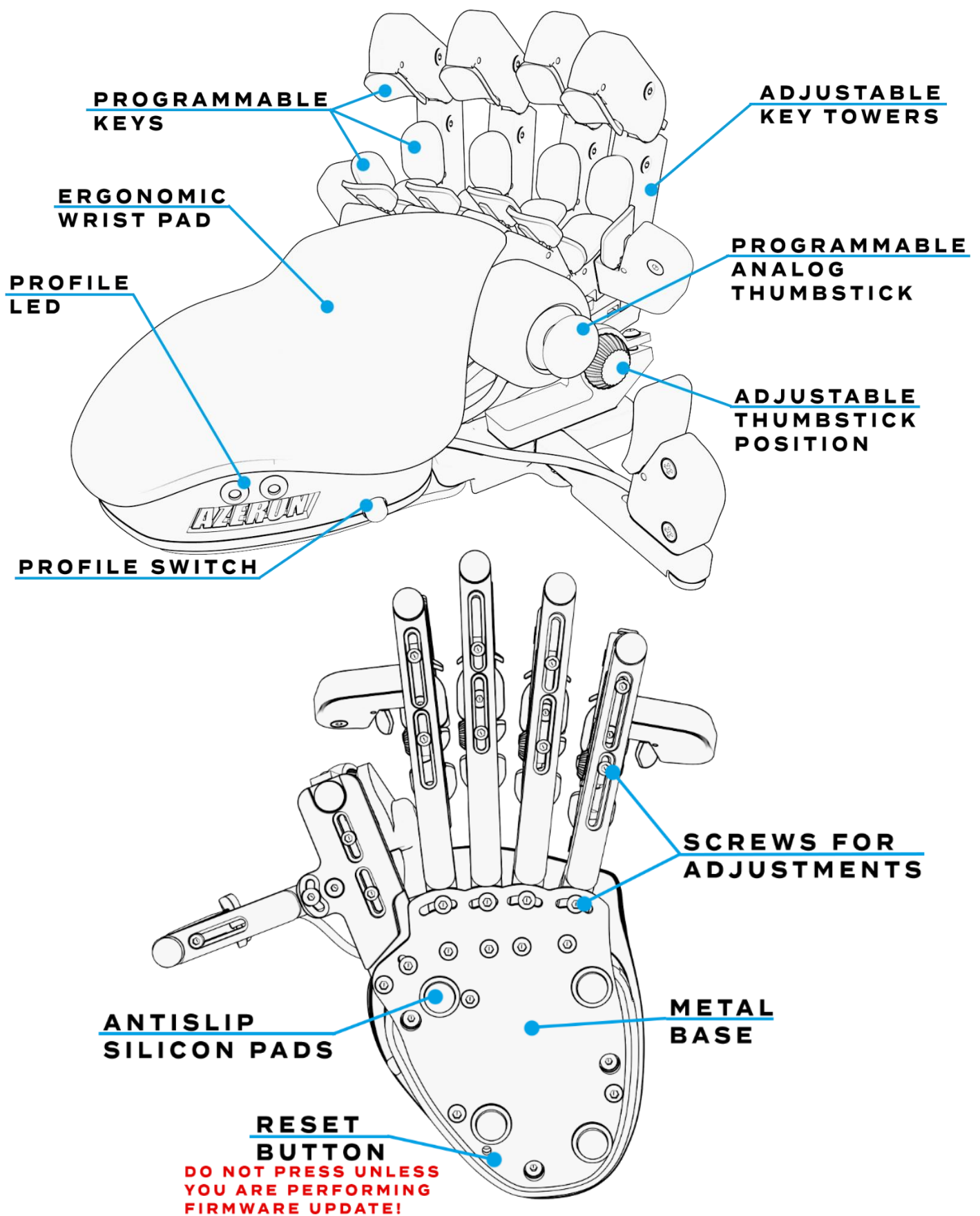
## 1. FEATURES

- 22 programmable buttons on towers
- 7 programmable thumb buttons
- A programmable full size analog thumbstick
- Adjustable button positions to fit your hand
- Stable metal base with antislip silicon pads
- Braided cables
- 2 meter (6.5 feet) braided USB cable
- Easy accessible reset button
- Omron micro switches
- On-board memory for your favorite keybinds

## PACKAGE CONTENTS

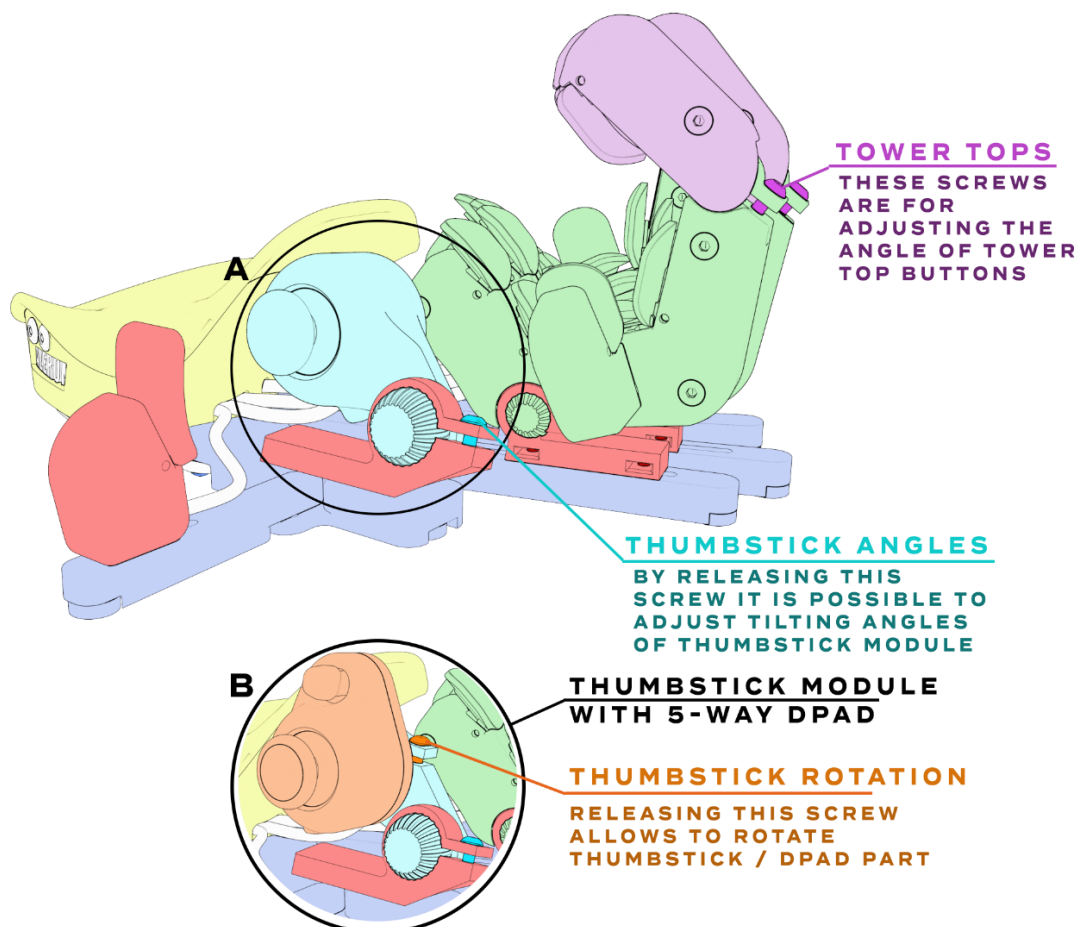
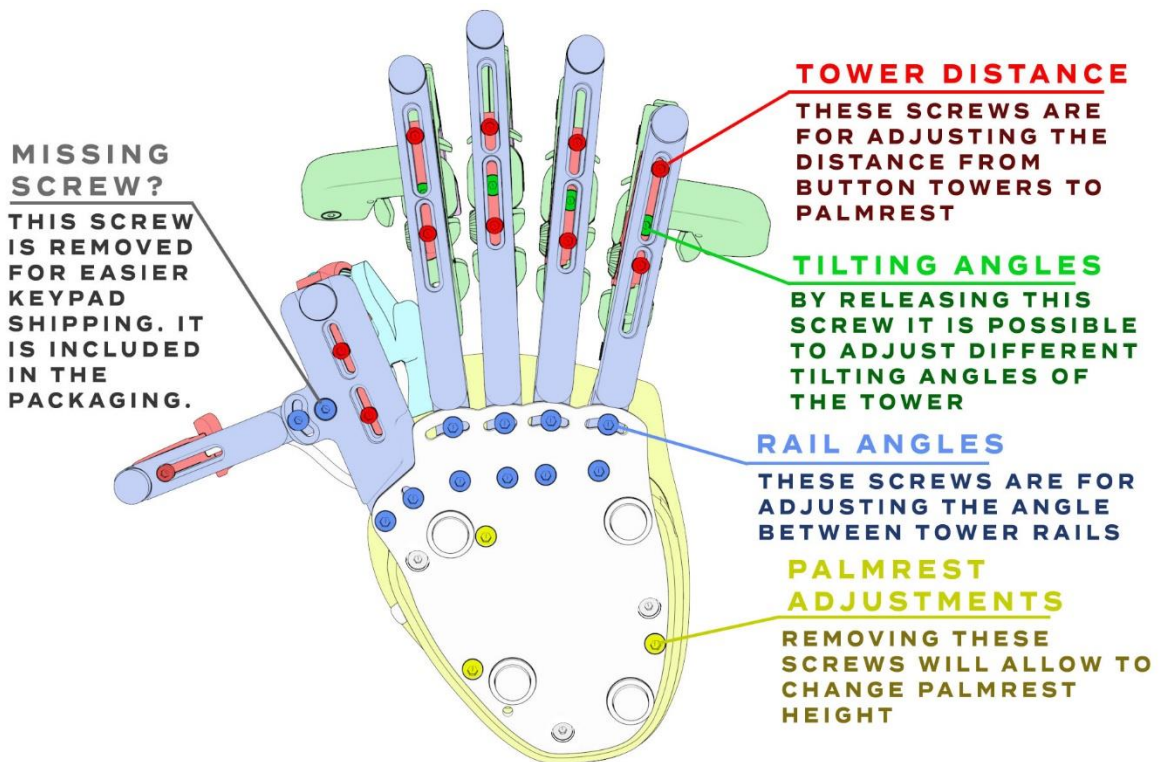


## 2. DEVICE LAYOUT



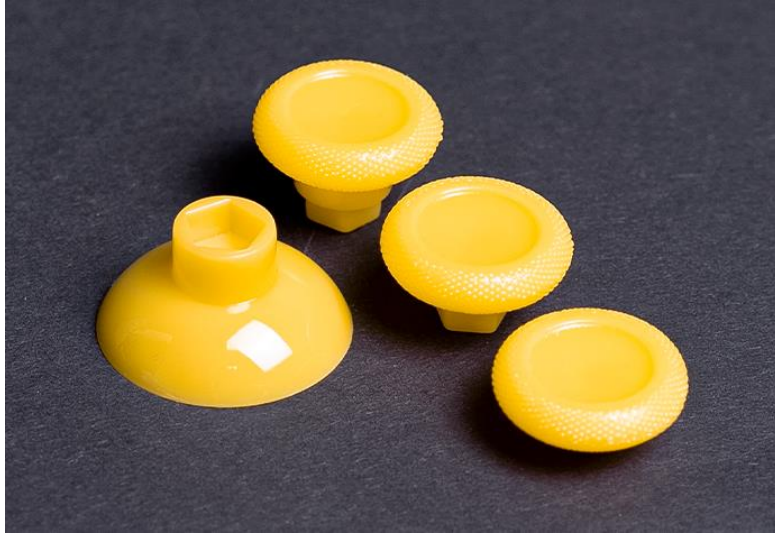


### 3. ADJUST YOUR AZERON KEYPAD



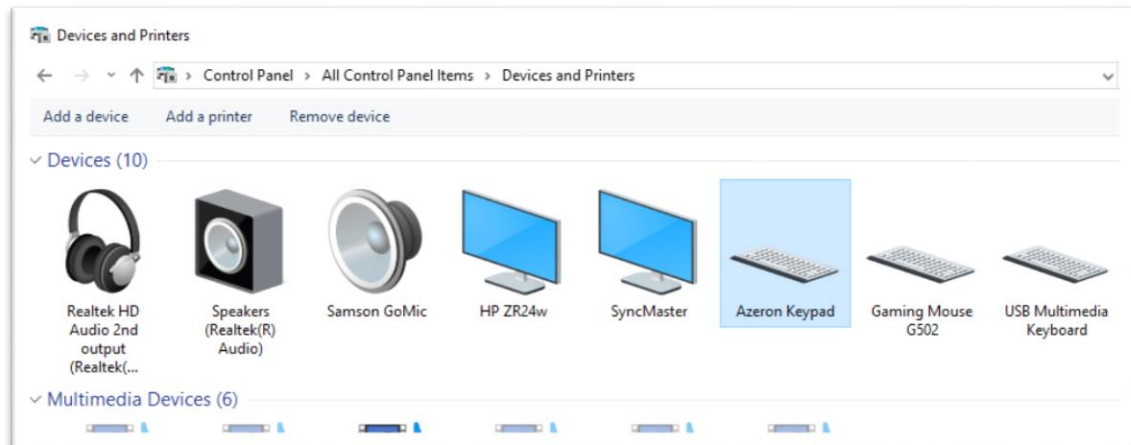
By using the included Hex screwdriver, it is possible to adjust key and thumb module positions for your hand.

You can swap included thumbstick caps just by pulling them off with a little force:



## 4. INSTALLING SOFTWARE

First you need to check if your computer recognizes Azeron keypad. Plug in USB cable in PC. Go to Start – Control Panel – Devices and Printers, and see if under Devices shows up Azeron keypad.

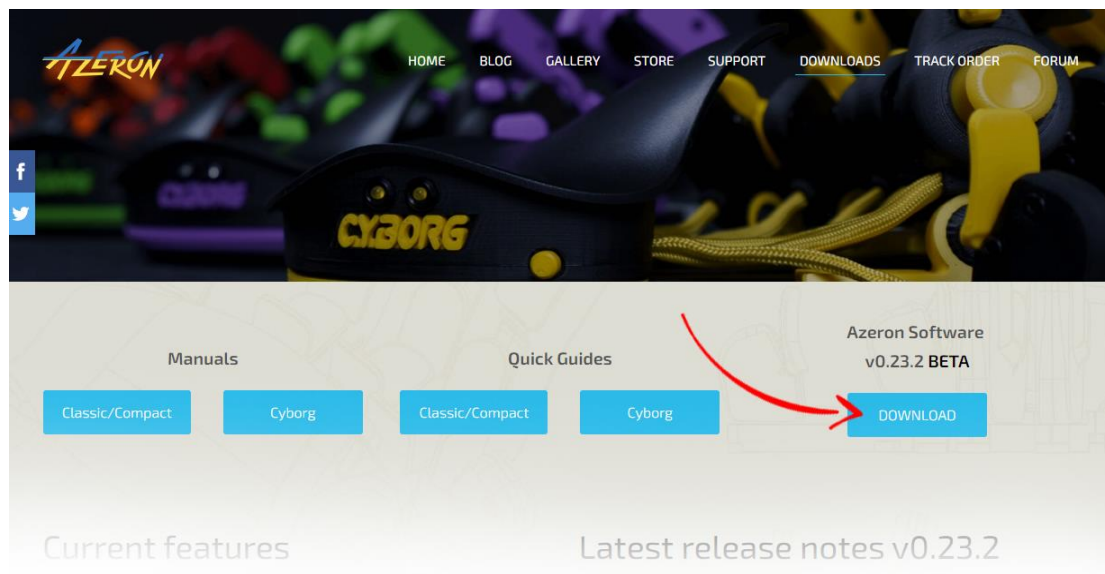


If it doesn't, and the LED lights are not turning on, make sure the USB cable is connected to the keypad properly. The USB cable should look like this when fully plugged in:





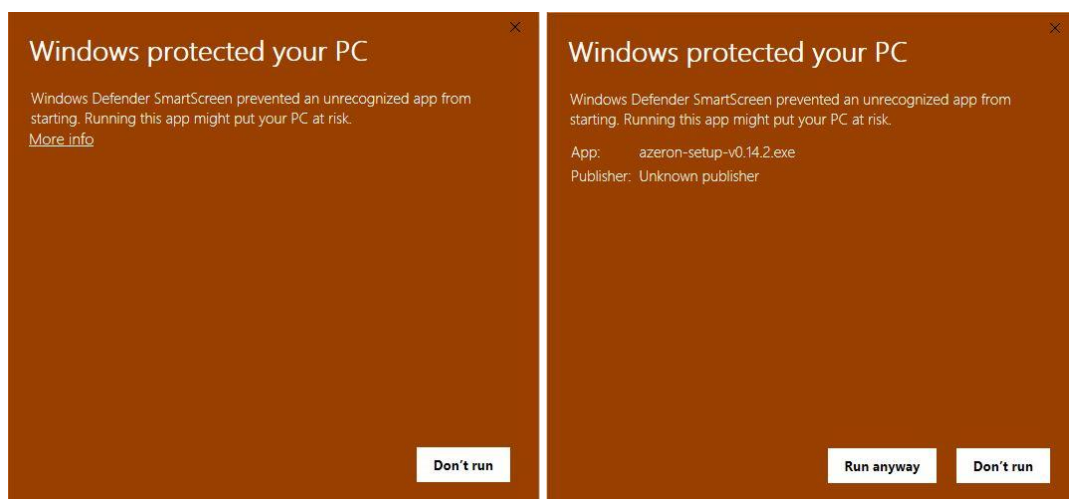
We are constantly working on new features and improvements, so make sure to go to our website (<https://www.azeron.eu/downloads/>) and download the latest Azeron software.



*When shipping out the keypad to you, it has already pre-installed latest firmware. So by default you don't need to install that.*

Go to the directory where you downloaded the software, then double click on Azeron-setup-vX.XX.X to install the software.

Sometimes Windows may prevent installation, because it is a new software it doesn't recognize:



Just click on the “More info” and then on “Run anyway”.

After that, the software will start to install. When it's done, there will be a shortcut icon on Desktop and in the Start menu.

In case the software installation stops midway and doesn't progress, make sure to pause your antivirus and try to install again.

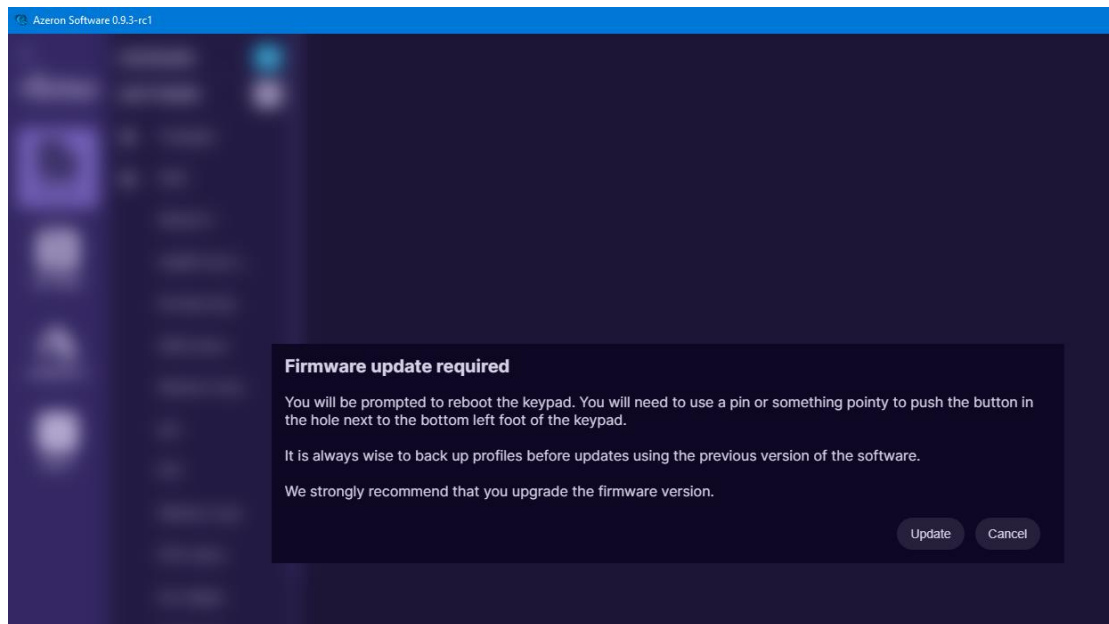
After the installation is done, plug in the USB cable of the keypad in PC and then launch the Azeron software.

*If you are not sure if your PC has the USB3.0 motherboard drivers installed, then we would suggest to use USB 2.0 port to avoid unpredictable behavior of the keypad recognition.*

*Also if you are using USB hub, the keypad may flicker and have power shortage. So make sure to use USB hub that can provide enough power or plug in the keypad directly in PC motherboard*

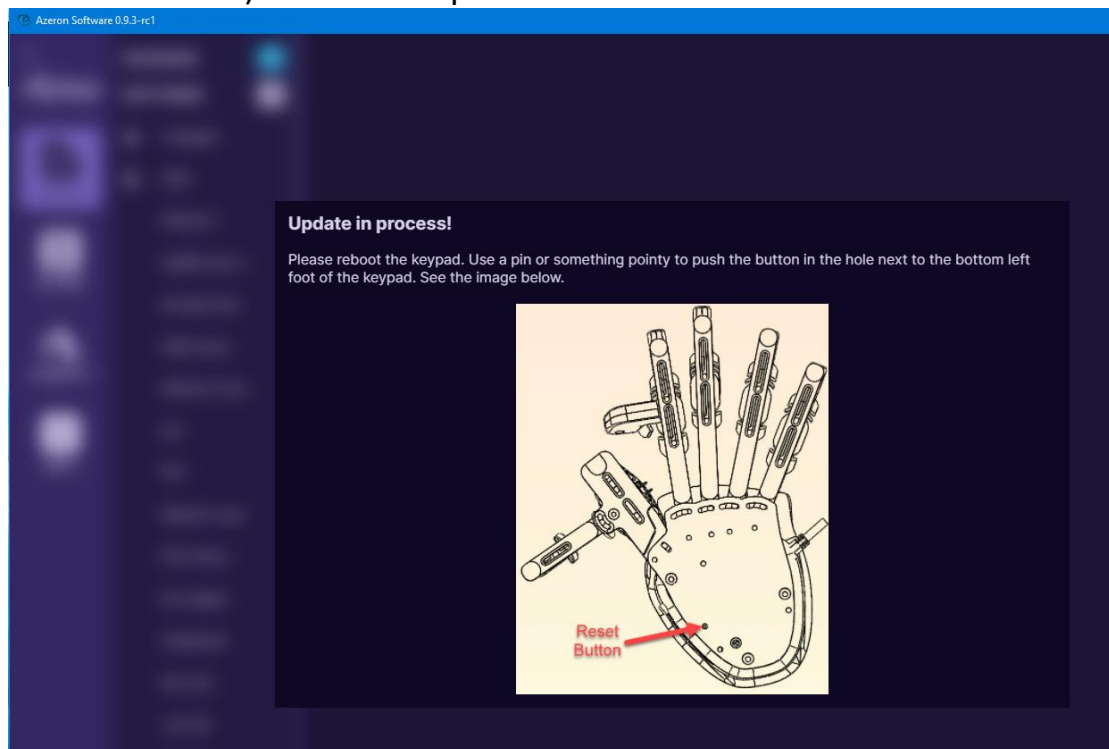
When opening Azero software, there are 3 options what could show up:

A) When opening software, it may show this screen:



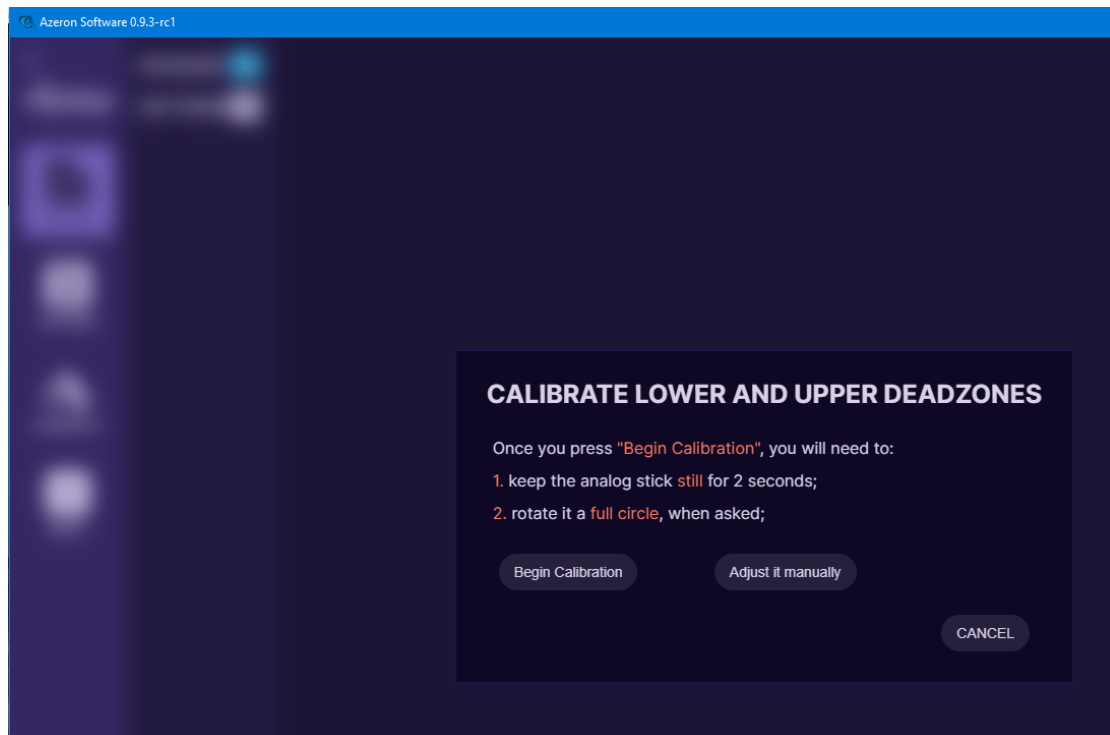
It means that the keypad requires firmware update. Click on “Update” at the bottom right corner.

There will be a loading animation as it downloads the newest version. For older keypad versions (those that are using Teensy as their microcontroller) will need to press the reset button underneath:

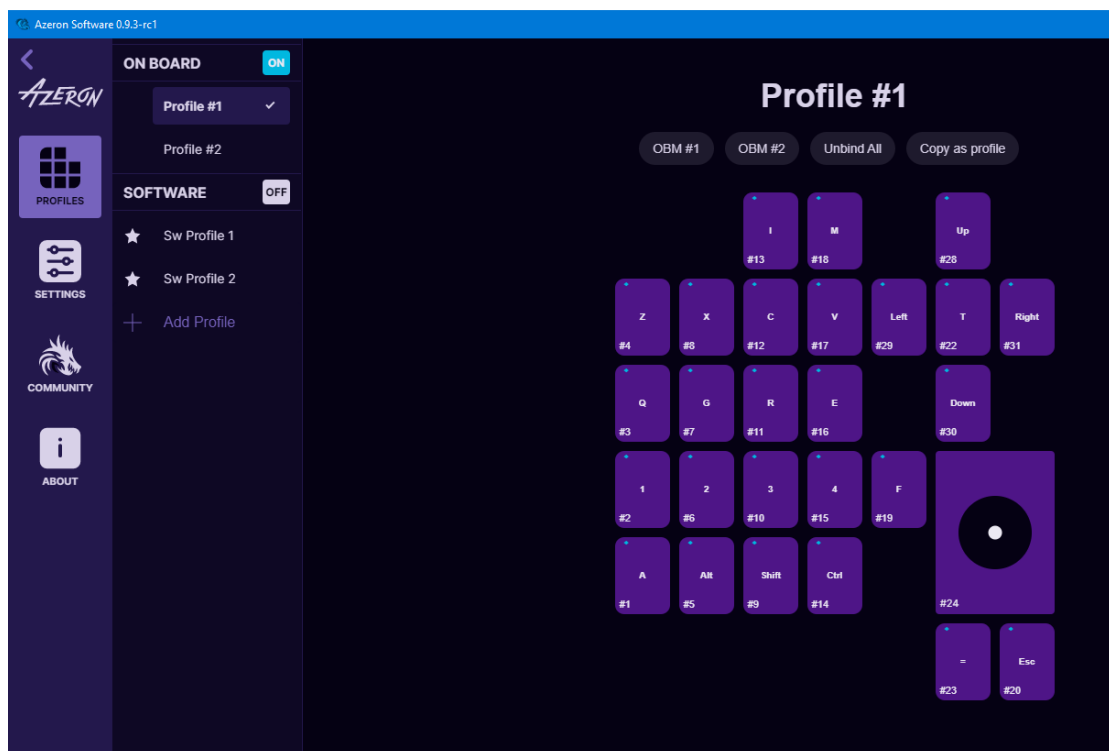


After firmware installation the keypad will restart. Wait until software connects with your keypad.

When the firmware update is complete the software will ask you to calibrate the thumbstick. Follow the directions on screen to complete the calibration.



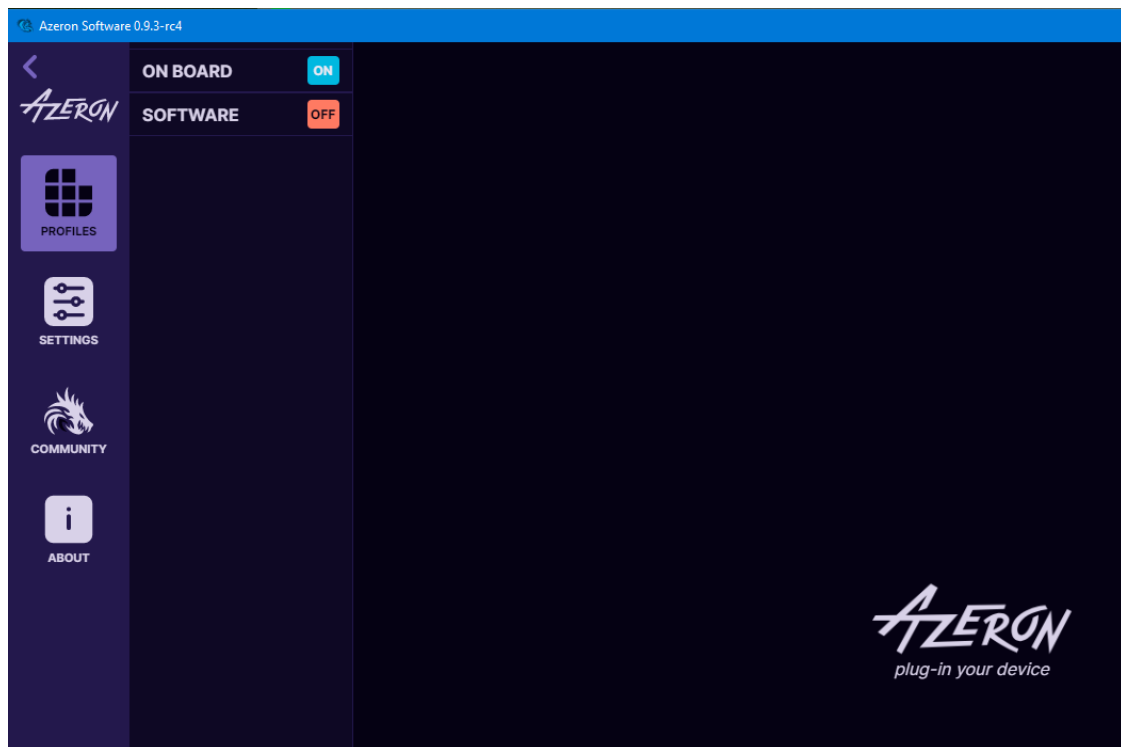
B) The second possible option when software opens up will look like this:



That means that everything is ready, the software and PC recognize the keypad and everything is up to date. You are ready to configure your keypad to your liking and start gaming.



C) Another option when opening software, it may be empty



It means, that the software cannot see the Azeron keypad. First of all, make sure you have plugged in the USB cable fully in the keypad. It should look like this:



Another possible solution is to close the software, unplug USB cable, wait until Windows no longer see the keypad, then plug in back the USB cable (make sure you are plugging in the USB directly in PC and not via USB hub! So that it has enough power), open the software again.

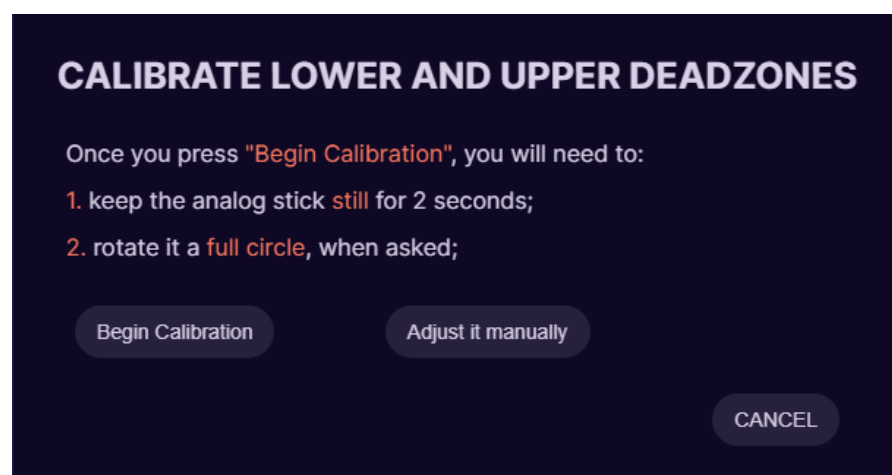
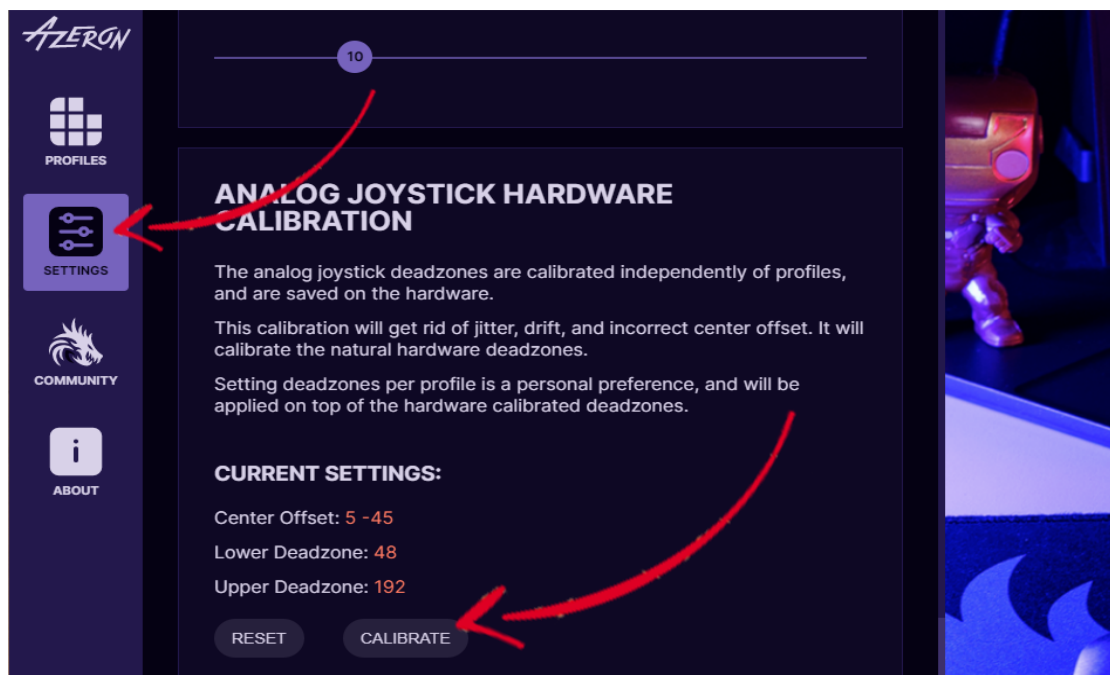
If that doesn't work, please contact Azeron support via email [info@azeron.eu](mailto:info@azeron.eu) or have a chat in [Azeron Discord](#)

## 5. HOW TO USE AZERON SOFTWARE

### 5.1. CALIBRATING THUMBSTICK

If you will be using your keypad for first time or just recently reinstalled software or firmware, then you need to calibrate the thumbstick. Here is steps on how to do it:

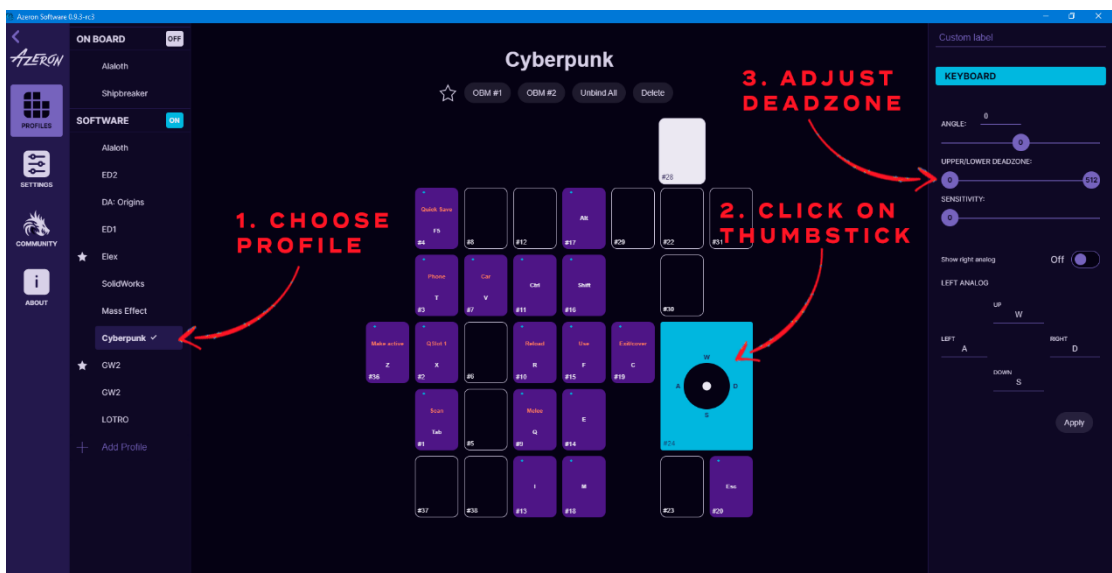
Plugin the USB cable of keypad to your PC. Open the Azeron software. Go to Settings. And press on button “Calibrate” and carefully follow the instructions on screen.





In case you wish to use the included restrictor ring, then please follow [this video guide](#) or these setup steps:

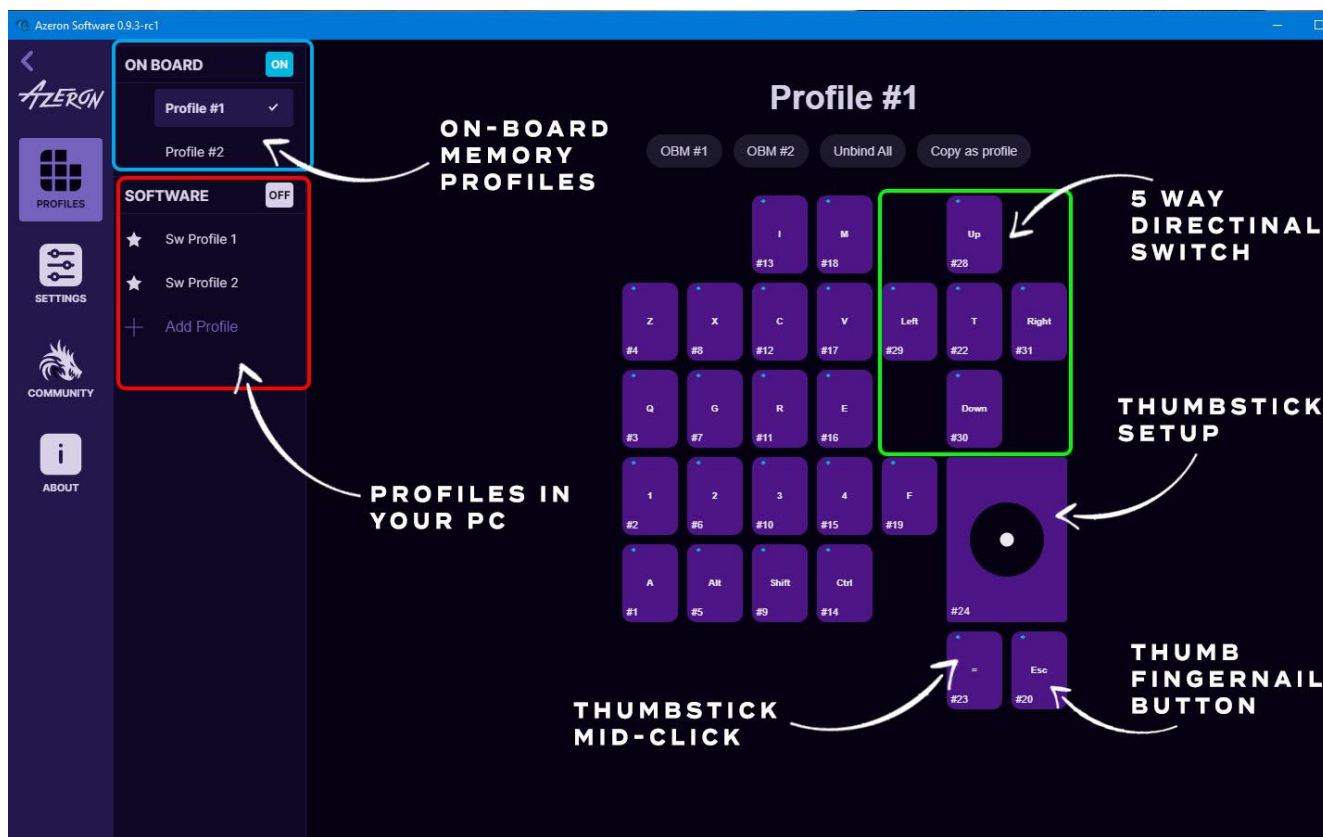
1. Make sure the restrictor ring is removed from the keypad.
2. Calibrate the thumbstick in the Azeroth software ([how to](#))
3. Remove the thumbstick cap
4. Put on the restrictor ring, make sure the concave part is on the thumbstick side.
5. Put back on the thumbstick cap
6. In the Azeroth software go in the thumbstick settings:



7. Take the upper deadzone and lower it to ~120. Make sure the thumbstick makes perfect circle at the edge when moved around. If not, then lower the deadzone even more.

## 5.2. INTERFACE OVERVIEW

There are 2 profile types available - on-board and software.



**On-board profiles** are saved in the keypad memory (so you can use the keypad on other PC or consoles and it will work with the saved settings). If you are using only on-board profiles, then Azeron software doesn't need to be opened while gaming, it is used just to setup buttons. If you are using **software profiles**, then the Azeron software needs to run in the background while playing the game.

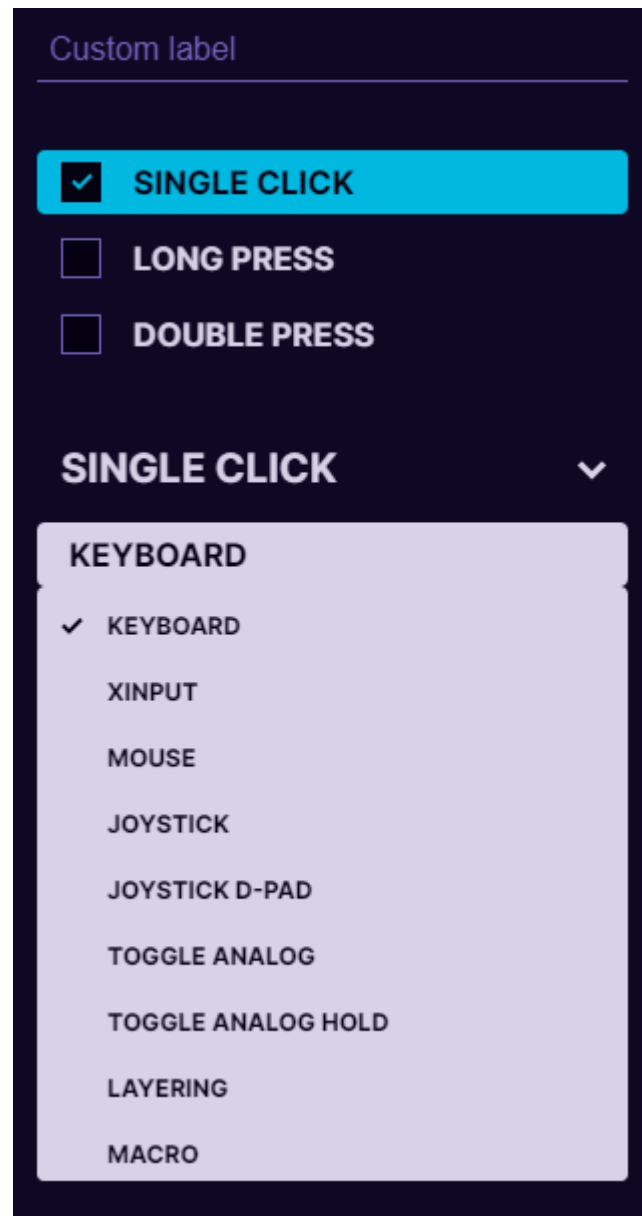
*Note! Macros and Layering features will not work in the on-board memory*



### 5.3. KEYBIND SETUP

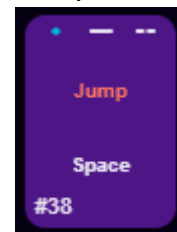
When pressing button on the keypad, the corresponding button will light up in the Azeron software.

To setup buttons, with your mouse click on the button you wish to setup, then on the right side panel choose between several modes.



At the top you can name the button by writing custom label, for example, “Jump”.

It is possible to setup several modes on one button at the same time – **single click**, **long press** and **double press**. If you choose all three modes, then the corresponding symbols will appear on top of the button:



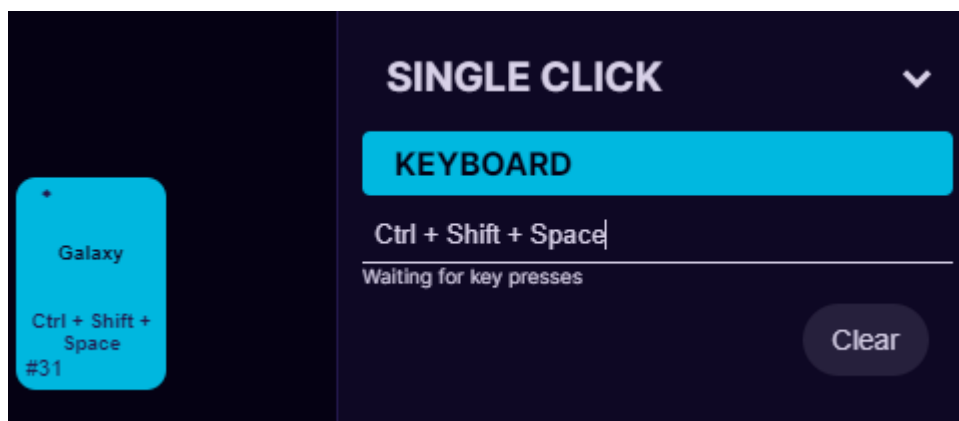
**Single click** keybind will execute immediately on button press. **Long press** keybind will execute only after the delay that you specify while holding down the button. **Double press** keybind will execute after the button is pressed 2 times.

*If you are using **Single click** and **Long press** modes on the same button, then there may be a small lag for **Single click** keybind. The shorter the **Long press** delay is specified, the shorter will be the lag on **Single click** keybind. If you specify very short delay, then there is a chance that **Long press** will be executed unintentionally, when you actually expect to have **Single click** keybind executed.*

### 5.3.1. Keyboard mode

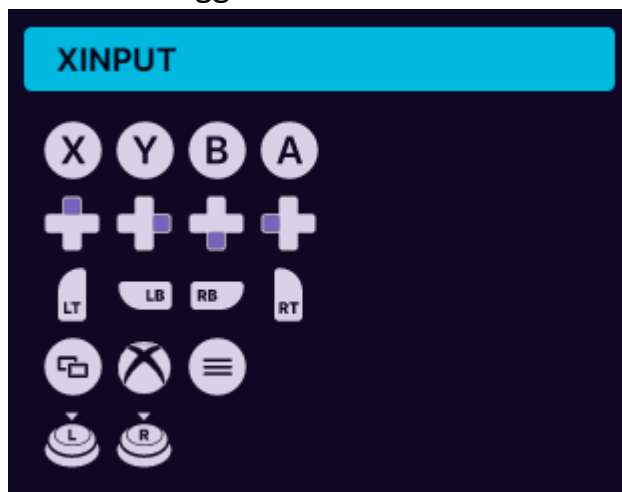
For **keyboard** mode you can setup a keyboard button to be used on Azeron keypad. It is also possible to setup button combinations on one key press (up to 3 button combinations).

*Only buttons not possible to setup currently are Right side modification buttons, they will always default to the Left side Shift, Ctrl or Alt. Also there is no simple way to setup special buttons, for example F13 F14 etc. But this will be included in the future software updates.*



### 5.3.2. Xinput button and Xinput trigger

Xinput allows the Azeron keypad button to act as an Xbox controller button or trigger.



Under **Xinput button** it is possible to setup:

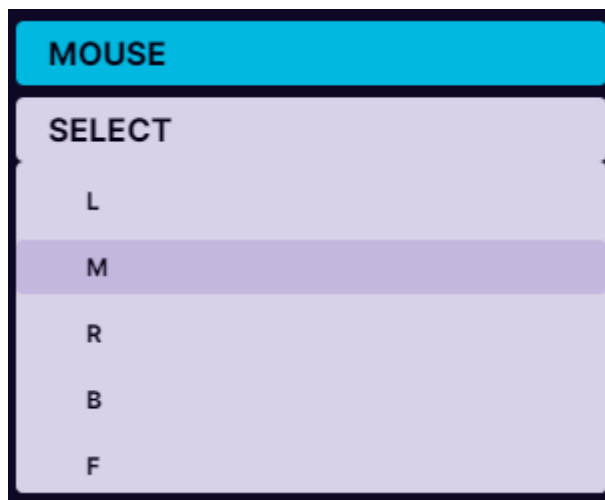
- Home
- Start
- X, Y, A, B
- Right Bumper, Left Bumper

- Push Right analog stick
- Push Left analog stick
- Back
- D-pad right, left, down and up

Under **Xinput trigger** it is possible to setup:

- Right trigger
- Left trigger

### 5.3.3. Mouse mode



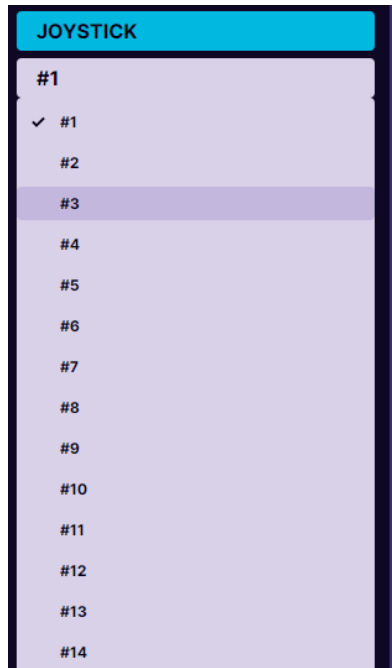
Under **mouse** mode the Azeron keypad button can act as a mouse buttons:

- Left click
- Middle click
- Right click
- Back
- Forward

### 5.3.4. Joystick button

In **joystick button** mode the keypad will act as a generic controller button (direct input of generic gaming controllers). If you are using Azeron keypad on consoles through XIM device (or similar adapter), then you need to setup all buttons as joystick buttons.

*Upon receiving your Azeron keypad or after reinstalling firmware by default the second profile in on-board memory will have all buttons setup as joystick buttons. So you can use Azeron on console via XIM adapter straight out of box.*



### 5.3.5. Joystick D-pad mode

In **Joystick D-Pad** mode the button can be setup as any function of the D-Pad (Up, Right, Down Left, Left, and also diagonally, for example Right Up or Left Down). This also will act as direct input of generic gaming controllers.

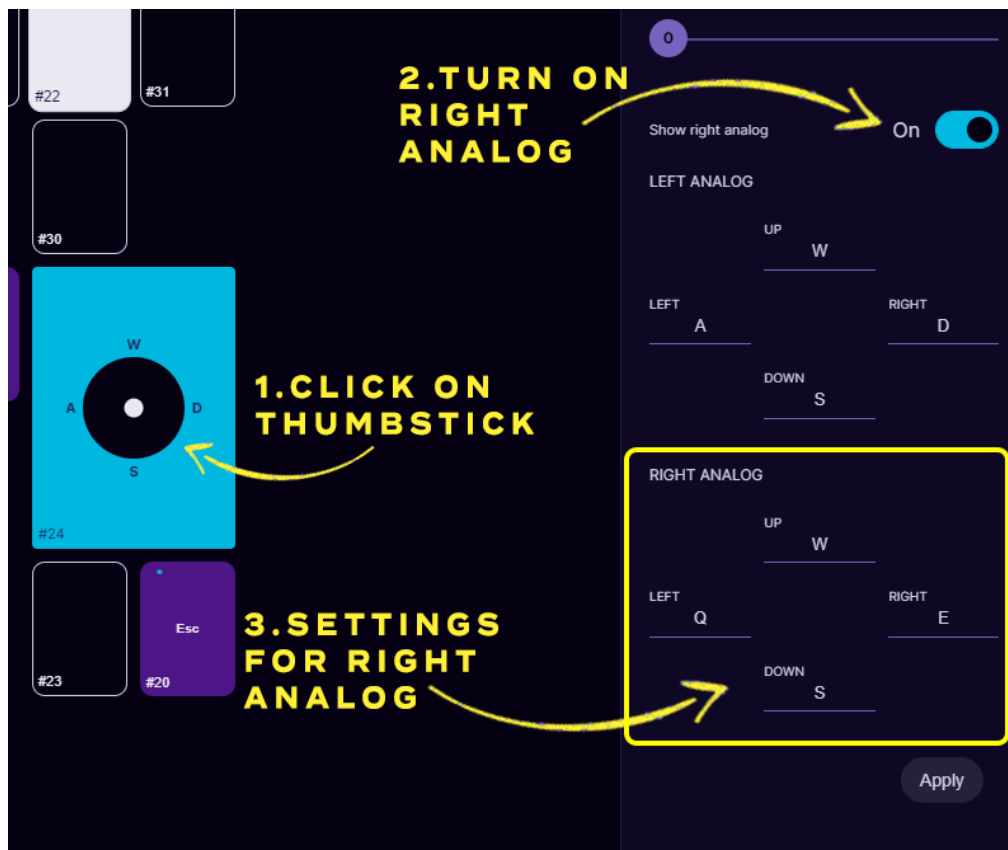
### 5.3.6. Toggle analog stick mode

On the keypad there is only one thumbstick, but you can setup a button to switch between two thumbstick settings.

If thumbstick is setup as an analog stick, then it will switch between Left and Right analog stick of the controller.

If thumbstick is setup as a keyboard (WASD for example), then you can setup also what keyboard buttons will be on the second thumbstick (for example QWES).

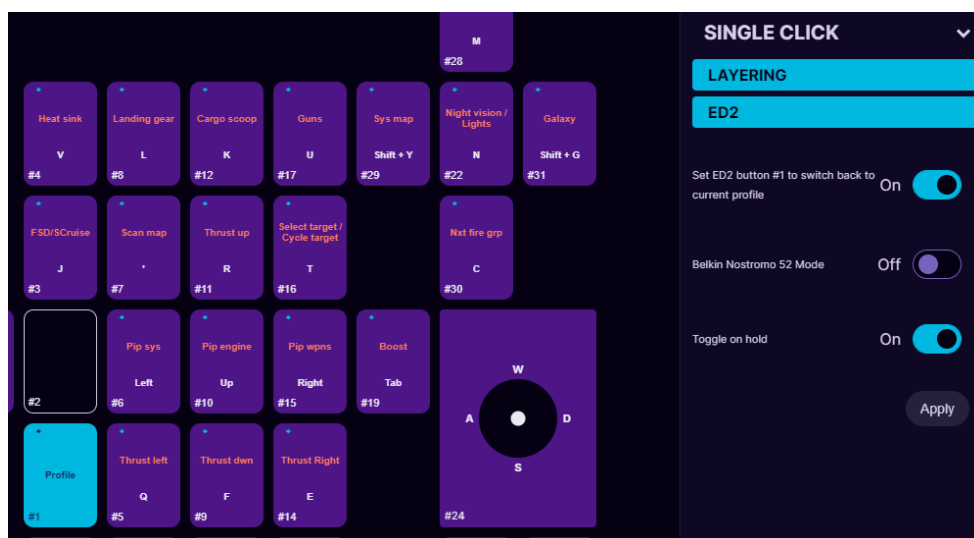
After setting "Toggle analog stick" on the button, make sure to go in the thumbstick settings, turn on the 2<sup>nd</sup> thumbstick and change the keybinds on it as you wish:



Mode **Toggle R/L joystick while held down** works the same as mode above, but the second thumbstick settings will work only while the button on the keypad is held down.

### 5.3.7. Layering

Any of the buttons can be programmed as a shift button to switch between several button layers on the fly thus increasing the number of functions that can be programmed into the other buttons by several times.





For example, in the picture above, we are editing button #1 as a switch button and we will set it up to switch to another software profile, which is called “ED2”. Now when pressing button #1 on the keypad, the keypad will switch to profile named “ED2” and will use the keybinds that are stored there.

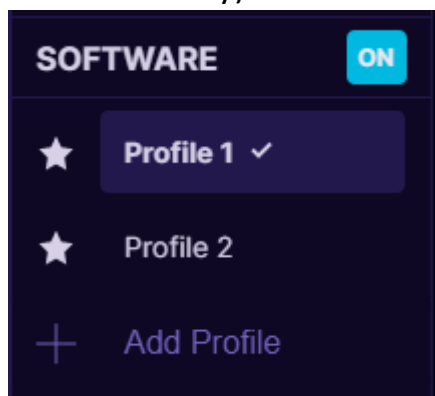
If we want that by **pressing again** button #1 we switch back to the previous profile, then we need to choose ON at the option “*Set ED2 button #1 to switch back to current profile*”.

If we want to access the 2nd layer buttons only while we hold the button #1, then the setting “**Toggle on hold**” must be ON.

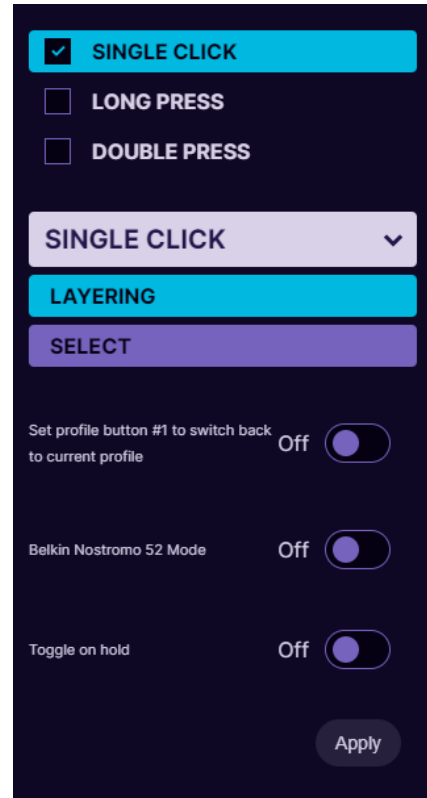
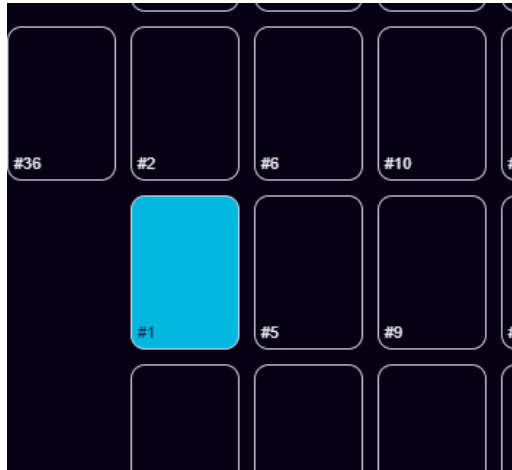
If we choose ON at the option “**Belkin Nostromo 52 mode**” then the held keys from the current profile binds will be released and the new profile binds for the pressed keys will automatically be pressed on profile change. For example, if on Profile 1 we hold button A, it spams AAAAAA, then we press profile switch button without releasing A, then it will start to spam B from the Profile 2. As soon as we release the profile switch button, it will continue to spam A.

### How to setup layering step by step:

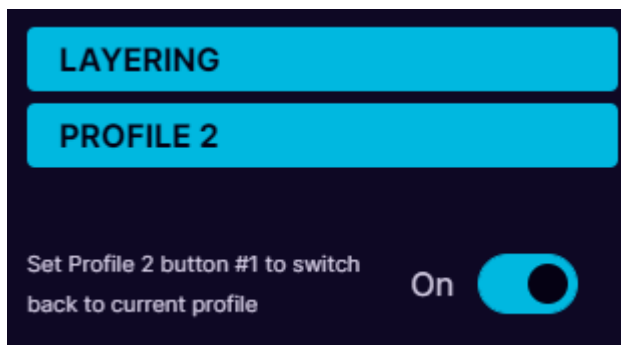
1. Create 2 profiles in software section (layering will not work in on-board memory):



2. Activate Profile 1, select on the button you wish to use as layer shift. Pick Single Click and choose Layering from the dropdown menu



3. Then under Layering Select Layer2, which will act as our 2nd layer for buttons.

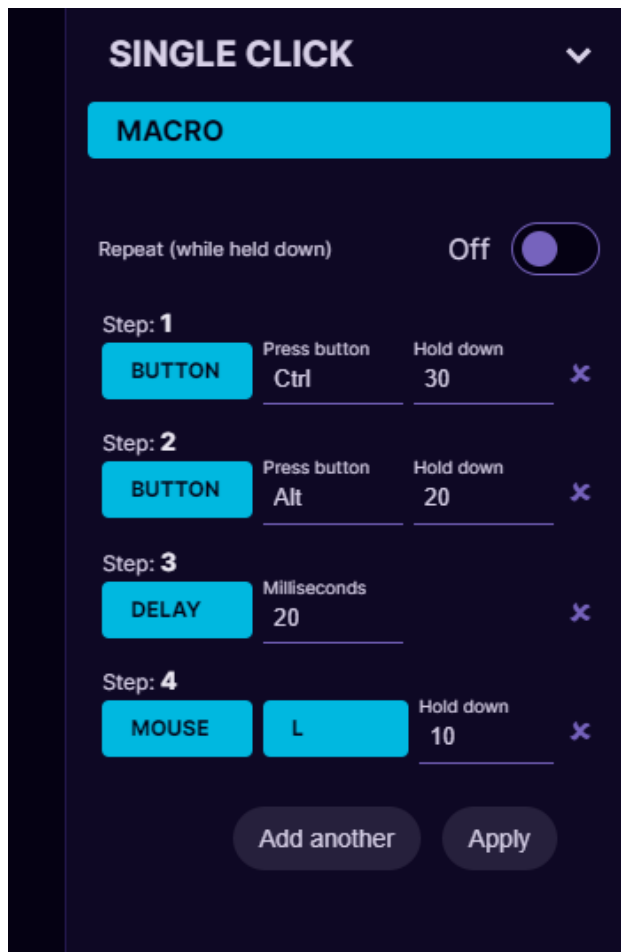


4. Turn ON the option “Set profile button #1 to switch back to current profile” to be able to switch back to Profile 1 with the same button.
5. Setup one set of keybinds in Profile 1 and another setup of keybinds in Profile 2.

### 5.3.8. Macro

It is possible to setup macros on keypad buttons. When choosing **Macro** mode for the button, it is possible to program several keyboard keypresses, mouse buttons and delays in the sequence you wish. You can also choose how long is the keypress and delays in milliseconds (avoid

using too small values for delays and keypresses, otherwise it may not register). It is also possible to turn on a repeat for the macro while the button is held down.



*Macro function is available only in software profiles! Currently it is not possible to save Macro in on-board memory due to the Teensy PCB limitations.*

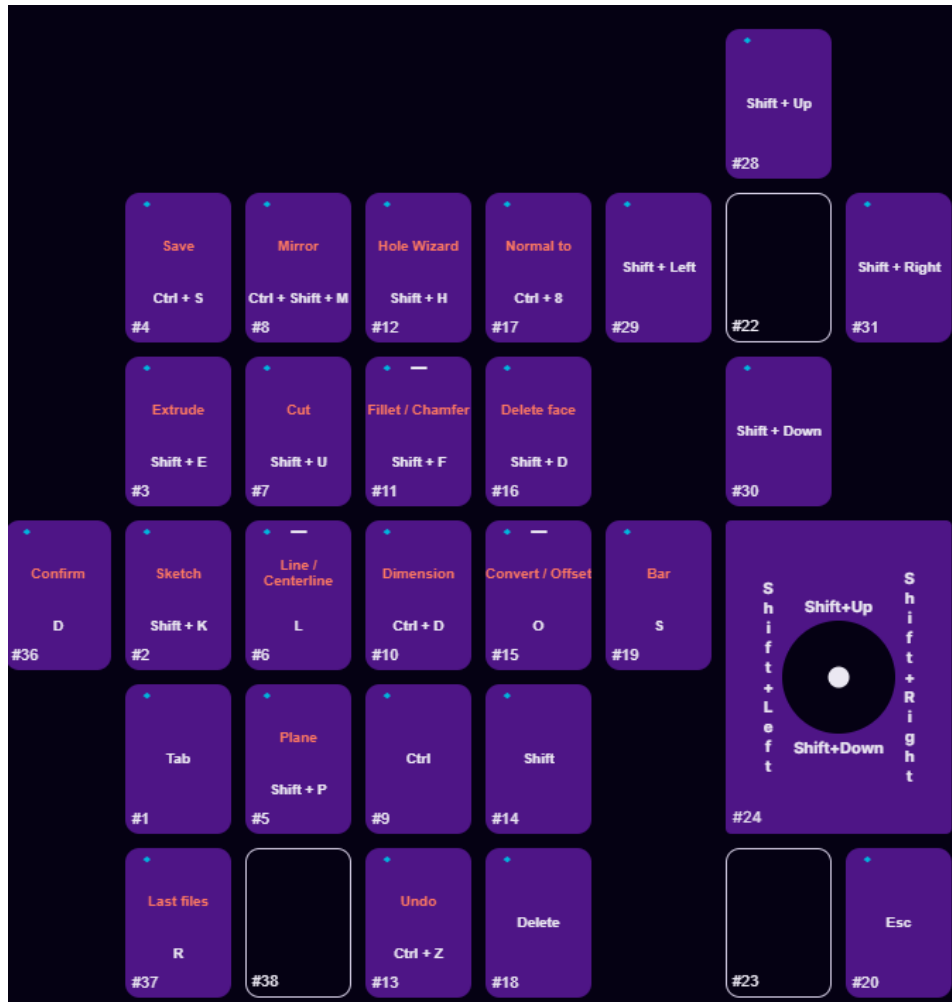
*We are planning to add more advanced macro functionality in future software updates.*

### 5.3.9. No action mode

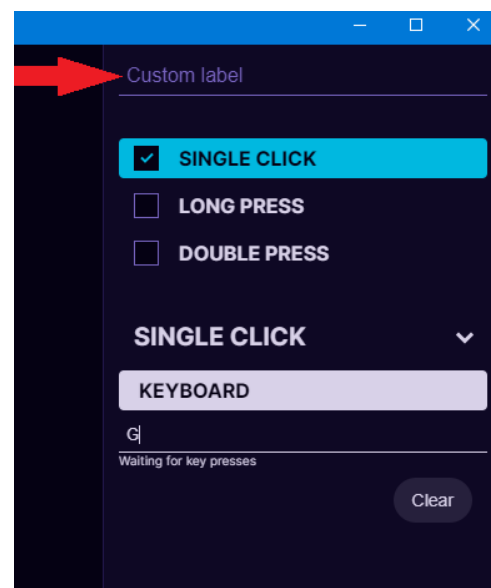
In **No action** mode the button will be “empty” and do nothing. You can also remove the keybind by **right clicking** on the button. Or press “**Unbind All**” at the top to remove all keybinds and labels.

### 5.3.10. Button labels

You can setup custom names for each button for easier overview of your keybinds. Similar to this (white color is keybinds, darker color is custom button names):

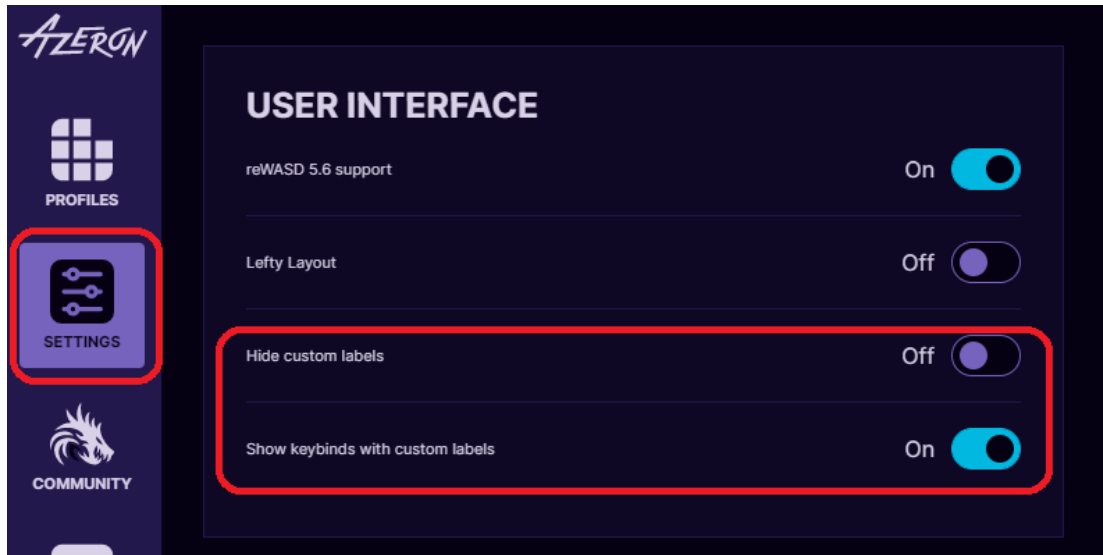


To setup custom name - click on the button and then write the name in field “Custom name”:



In the software Settings under *User interface* you can choose to:

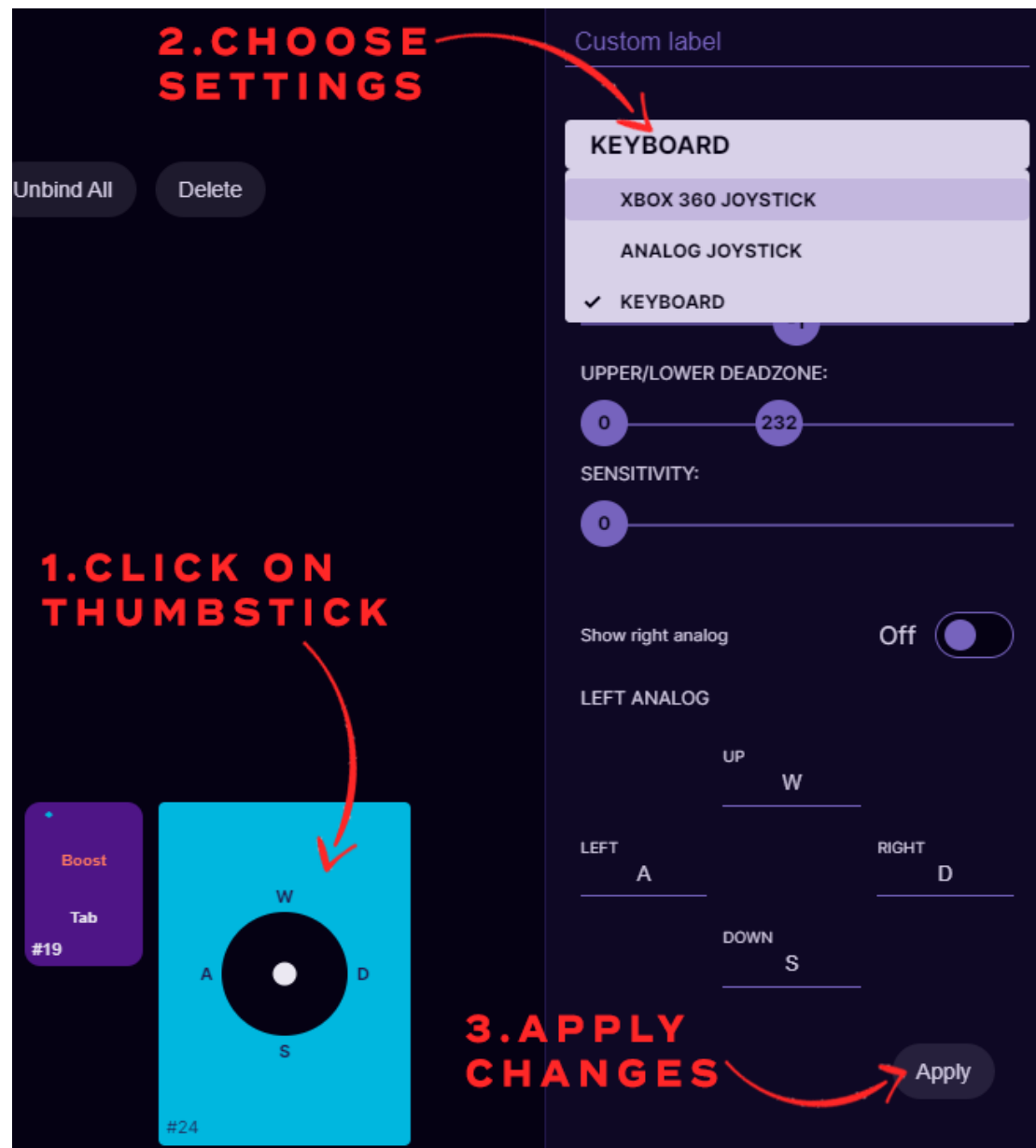
- Show labels only, without keybinds
- Show both labels and keybinds
- Hide all labels





## 5.4. THUMBSTICK SETUP

Thumbstick has two modes – it can act as analog stick or emulate keyboard buttons.



**Xbox360 analog stick** will work the same as an Xbox controller analog stick. It has 360° movement and analog capabilities like if you move the thumbstick a little, then a character in video game will walk slowly, but if you move it to the outer edge, then character will start running.

*This mode will work with any game that support Xbox controller and in the same time can work together with mouse and keyboard binds. You can see the list of games that support such simultaneous input here:*

*[https://www.pcgamingwiki.com/wiki/List\\_of\\_games\\_that\\_support\\_simultaneous\\_input](https://www.pcgamingwiki.com/wiki/List_of_games_that_support_simultaneous_input)*

*If a game doesn't support simultaneous input or is supported only partially, then the game user interface may flicker between Xbox controller and keyboard&mouse interface when trying to use Azeron keypad together with mouse. In that case you can setup analog stick with keyboard keybinds, such as WASD to have better gaming experience.*

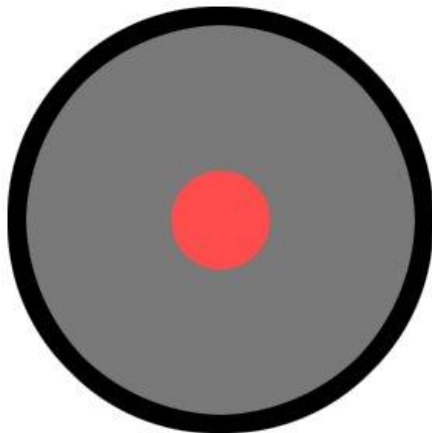
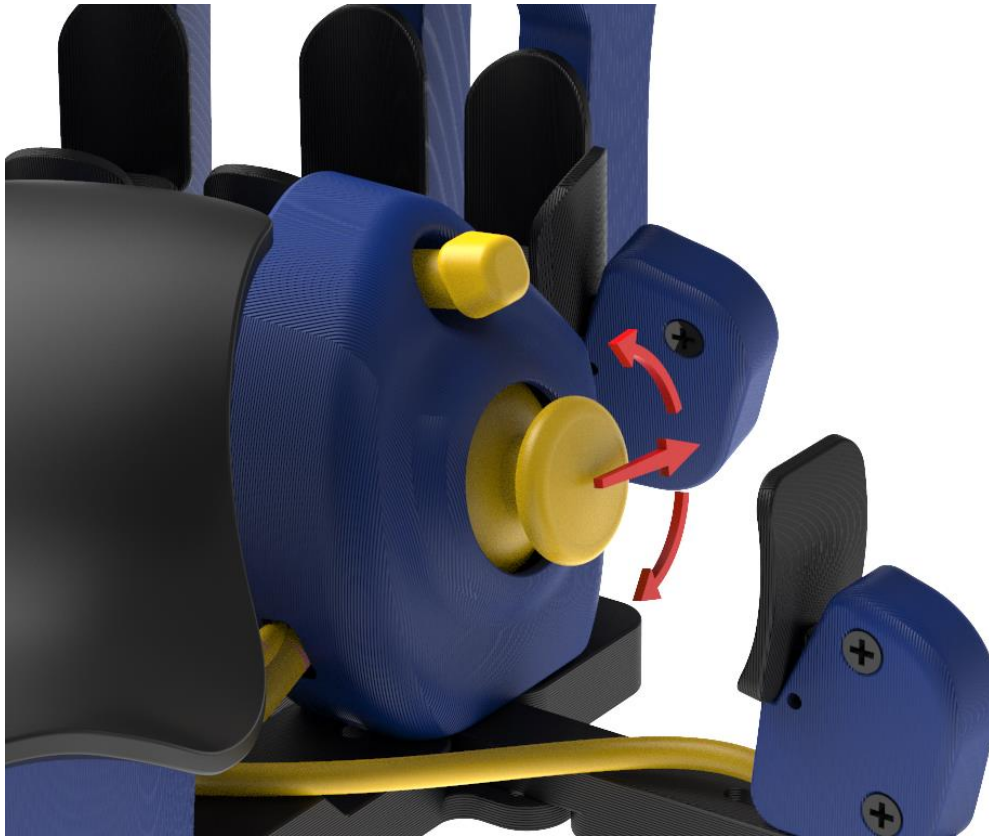
**Analog joystick** mode will work as generic joystick analog stick with a direct input. It will work in games that are compatible with any controller, not only Xbox controller, but the same as with **Xbox360 analog stick** mode, the game has to support simultaneous input.



In **Keyboard** mode analog stick will work in 8 directions with keybinds provided for 4 directions, such as WASD or similar. It is possible to setup 2 separate keybinds on thumbstick and switch between them on the fly (see more information at [5.3.6. Toggle analog stick mode](#))



It is possible to change the forward direction for thumbstick with **angle slider** up to 180° in each direction.



**Lower deadzone** is an area in the center of the thumbstick that won't recognize input if the stick is moved within it. The higher the value, the bigger the circle is in the center where thumbstick movement won't register.

If a **lower deadzone** is set to 0 or very low value, then the thumbstick may be too sensitive to every micro movement (even your cat sneezing) and it may have a flickering motion in Azeron software and a character in video game may move around even if you are not touching the thumbstick. In that case you need to set the **lower deadzone** value higher until it stops moving by itself (for example something between 10 – 65 is a good value). Please note, that if you have completed the calibration on your thumbstick ([5.1. CALIBRATING THUMBSTICK](#)) then here the settings you change for the

thumbstick will add up to the settings that were applied via calibration tool.

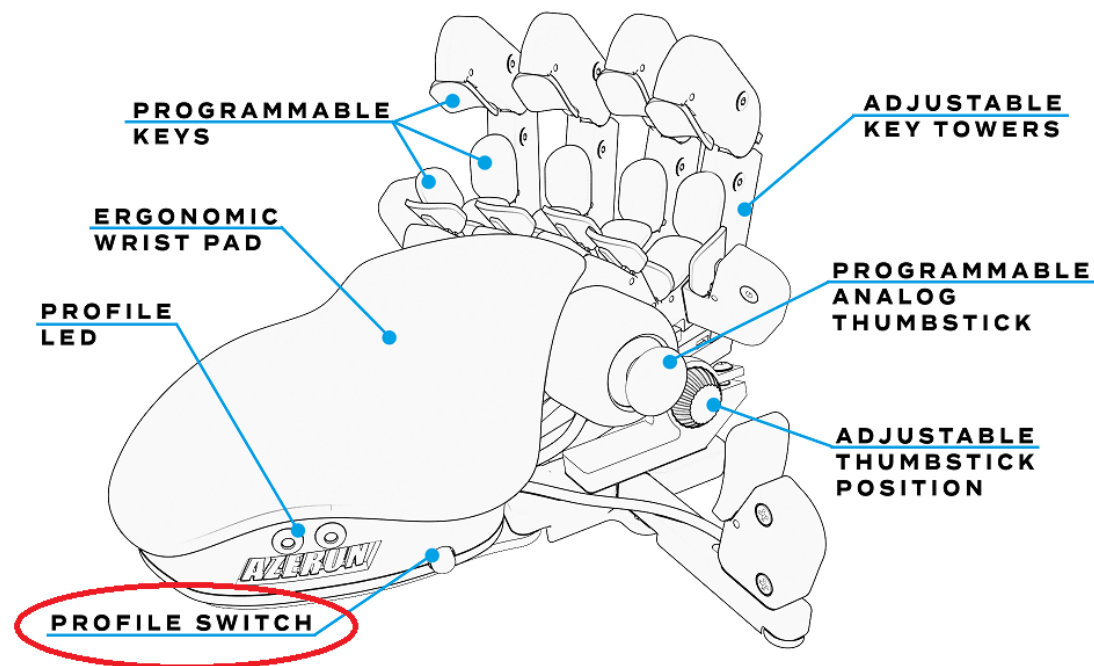
**Upper deadzone** determines how far is the outer diameter of the thumbstick travel zone. The lower the value the smaller the circle. So the lower the value, the less movement you will need with your thumb for your video game character to start moving with maximum speed. For example, if you are playing a fast paced FPS game and need extremely fast direction changes, you can lower the upper deadzone very low, even up to 50. Then even the tiniest movement with your thumb will already register the direction change. Using this technic together with restrictor ring is the best, because then also the thumbstick physically doesn't need large movements to hit the edges, less travel.

If you are not sure what deadzone settings you should use, just go through the Calibrate Deadzones wizard, and the software will choose the best settings for your thumbstick. See [5.1. CALIBRATING THUMBSTICK](#)

**Sensitivity** setting controls how sensitive thumbstick feels. The lower the value the more sensitive is the thumbstick. Most of the time good values are 3-10.

## 5.5 PROFILES

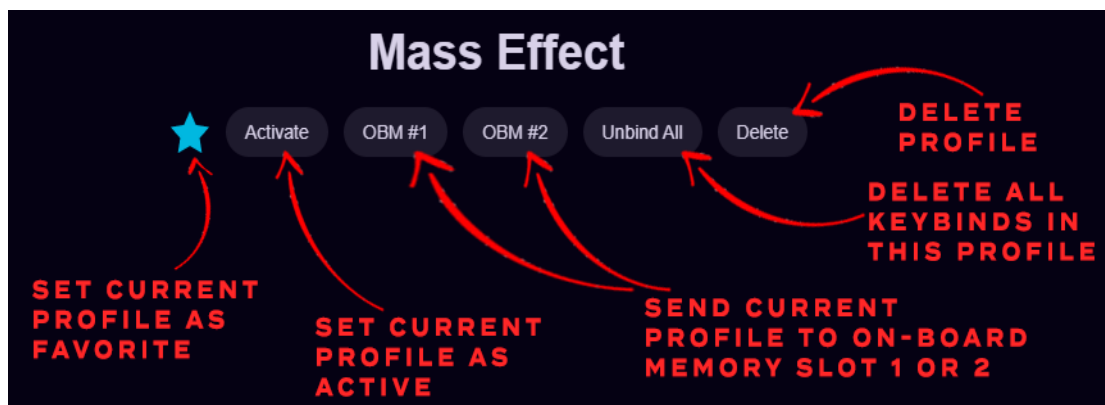
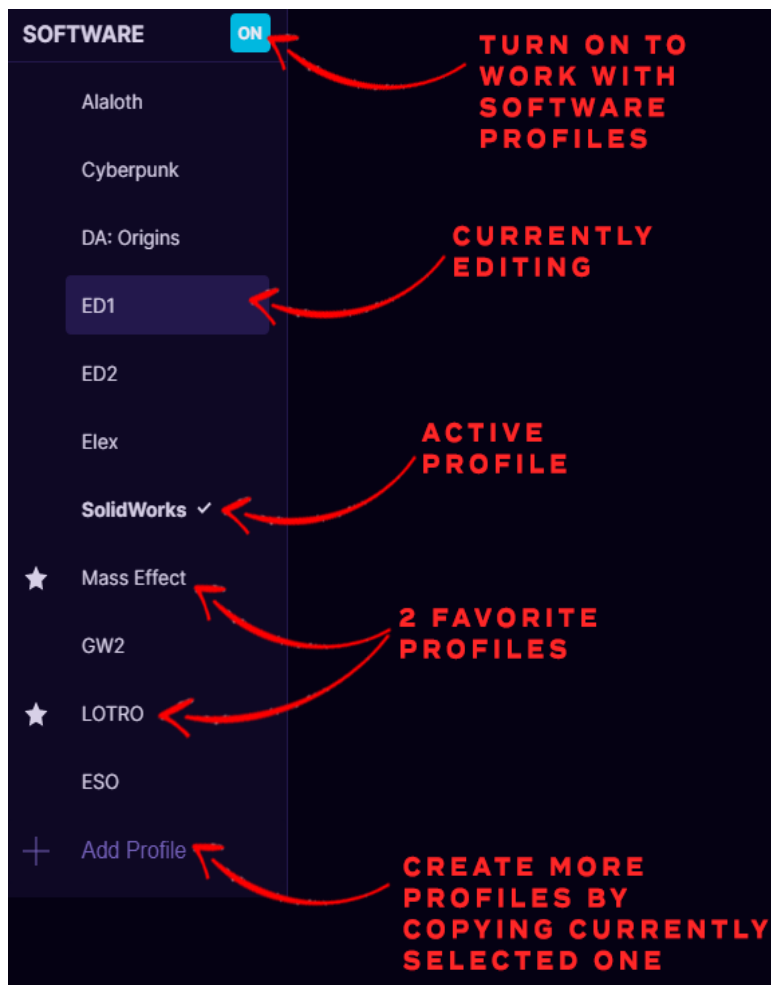
To switch between the two on-board memory profiles, you need to press Profile switch on the side of the keypad. If you are using first profile, then there will light up one Profile LED, for second profile it will light up both Profile LEDs.



To work with software profiles, you need to turn them on by pressing ON button near “Profiles:”.

Note! When using software profiles, the Aeron software must be running in the background while playing the game.

If you are using Software profiles, it is possible to choose 2 profiles as favorite and then switch between them with **Profile switch** similar as on-board memory profiles. Or you can activate any selected profile with **Activate** button.

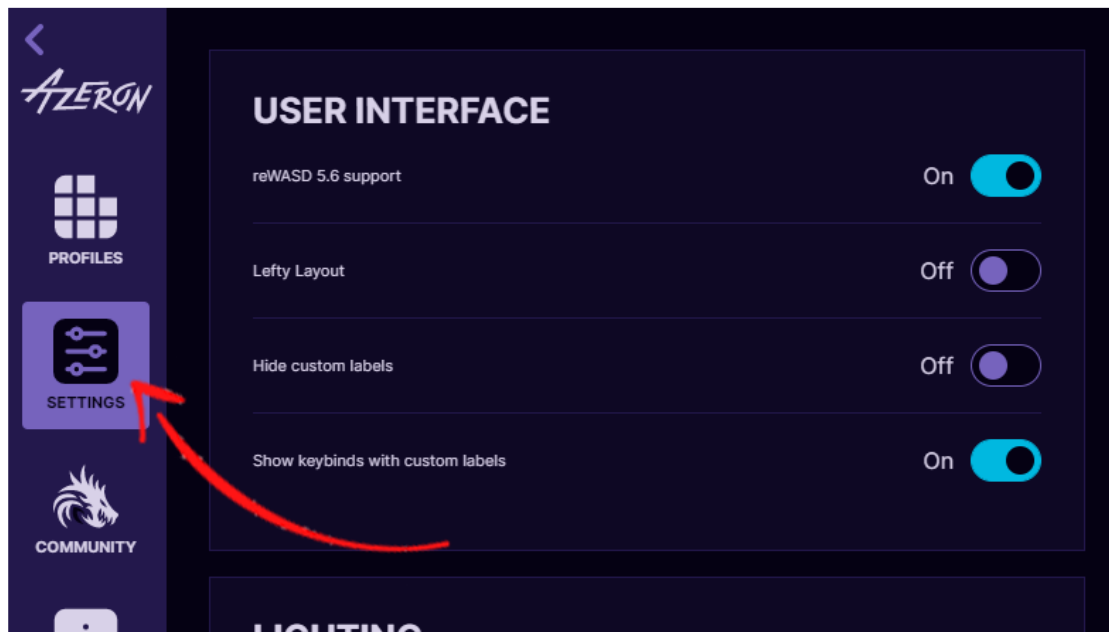


Any software profile can also be sent to On-board memory, by pressing **OBM#1** or **OBM#2**. Note that Macro will not work in on-board memory profiles.

At the bottom of the profile list is button **+ Add Profile**, which will create a new profile by copying already selected profile.

## 5.6 SETTINGS

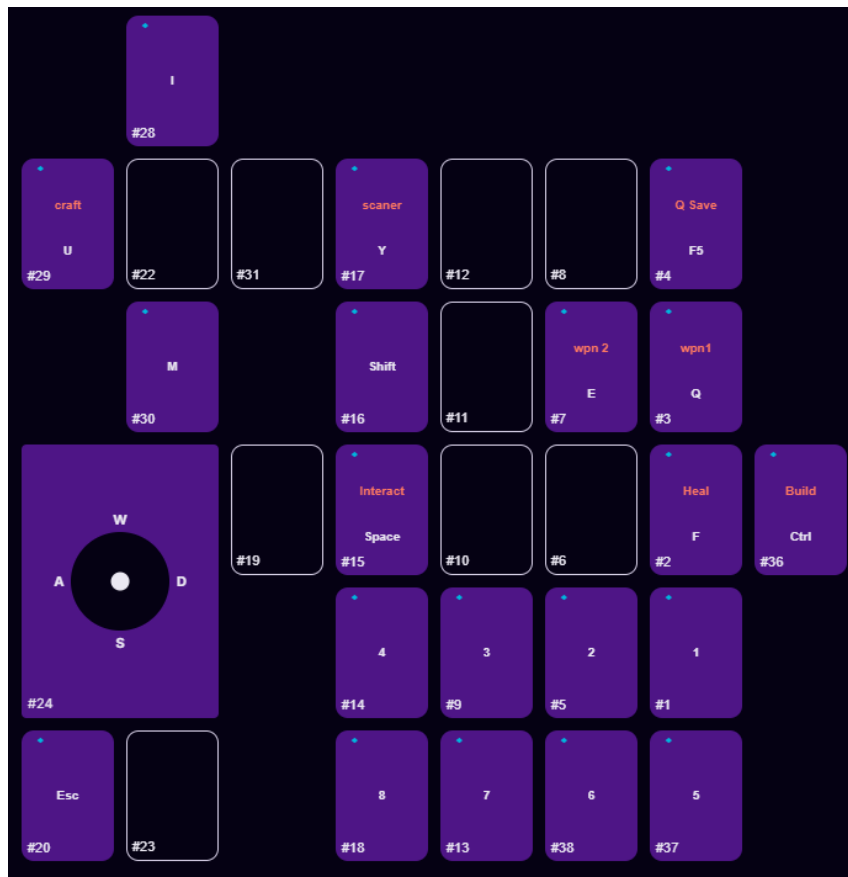
At the left side of the software you can select **Settings** button to access all the software and keypad settings:



At the top of the Settings you can see the interface options:

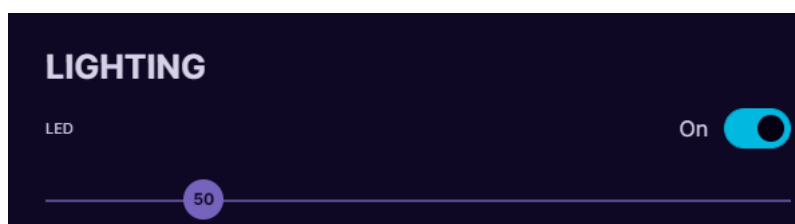
**reWASD 5.6 support** allows to use 3<sup>rd</sup> party software with more advanced options, called reWASD. By turning this setting ON, Azeron keypad will use older version communication protocol to be compatible with older reWASD version.

**Lefty layout** will switch the button interface for keypad that is meant for left handed people (keypad in right hand, mouse in left hand). The button layout will look like this:



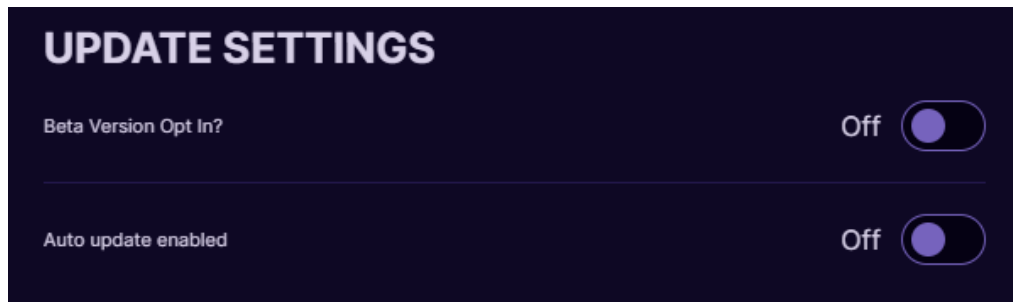
**Hide custom button labels** will hide the labels for each button you have created, only keybinds will be visible.

**Show key binds together with custom button labels** (visible only if Hide custom button labels is OFF) will allow to switch between 2 modes – having visible only button labels or visible labels together with keybinds.

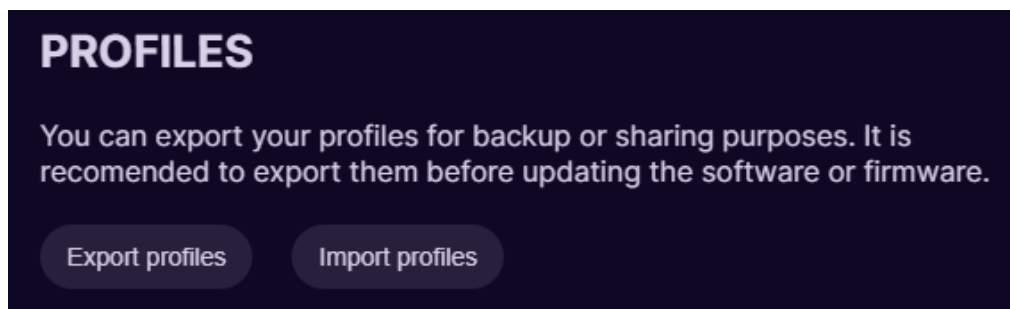


**Lighting** Turn LEDs OFF or ON will completely turn off the Profile LEDs on the side of the keypad. **LED brightness** slider adjusts the Profile LEDs. The higher the value, the brighter the LEDs will glow.





**Update settings.** By turning On the “Auto update enabled” it will offer to install the newest software version as soon as it is released. If you are ok to use beta version of the newest release and test new features before they are “polished”, you can turn On the “Beta Version Opt in” option. If there will be newer version available, then **Update** button will be visible. To update to newer firmware version, just press the button **Update** and follow the instructions on the screen.



At the **Profiles** option it is possible to **Export** and **Import** your profiles. You can back up all of your profiles in .JSON file, to prevent any accidental deletion when reinstalling software or Windows, updating firmware, etc. Note that it will save only profiles that are in the software and not in the On-board memory!

## GLOBAL BUTTON THROTTLE

Button throttle helps with accidental or ghost double-presses. It determines the amount of time (in ms) that must pass before the key can be pressed again.

**Type 1:** Default - measures time between button presses.

**Type 2:** Holds the button down to prevent double presses.



TYPE 1



TYPE 2

10

**Global button throttle.** In case one or more of the buttons are starting to make double clicks (switch debounce), you can setup button throttle here in milliseconds. That is the time that must pass between keypad will register next keypress on the same button.

*Note! The button throttle currently works on all buttons in the same time, it can't be setup separately for each button.*

## ANALOG JOYSTICK HARDWARE CALIBRATION

The analog joystick deadzones are calibrated independently of profiles, and are saved on the hardware.

This calibration will get rid of jitter, drift, and incorrect center offset. It will calibrate the natural hardware deadzones.

Setting deadzones per profile is a personal preference, and will be applied on top of the hardware calibrated deadzones.

### CURRENT SETTINGS:

Center Offset: -4 65

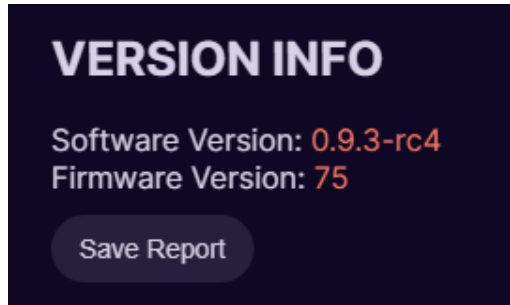
Lower Deadzone: 10

Upper Deadzone: 415

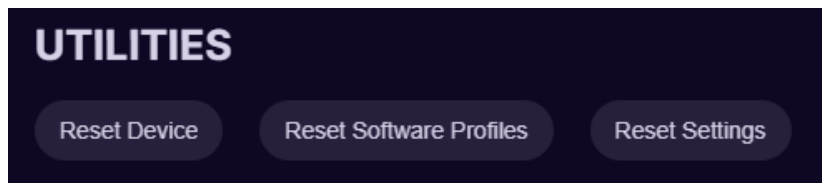
RESET

CALIBRATE

**Analog joystick hardware calibration.** Here you can **reset** the deadzones to zero values or **Calibrate** the thumbstick to optimal settings. When calibrating, carefully follow the instructions on screen. See more information at [5.1. CALIBRATING THUMBSTICK](#)



**Version information.** Here you can see what software and firmware you are using. **Save report** button will create a report file that can be sent to customer support to help identify any issues.



**Reset Device** this option will reset your keypad to factory setting, basically reinstalls firmware, deletes all settings and restarts software.

**Reset Software Profiles** will delete all profiles in the software.

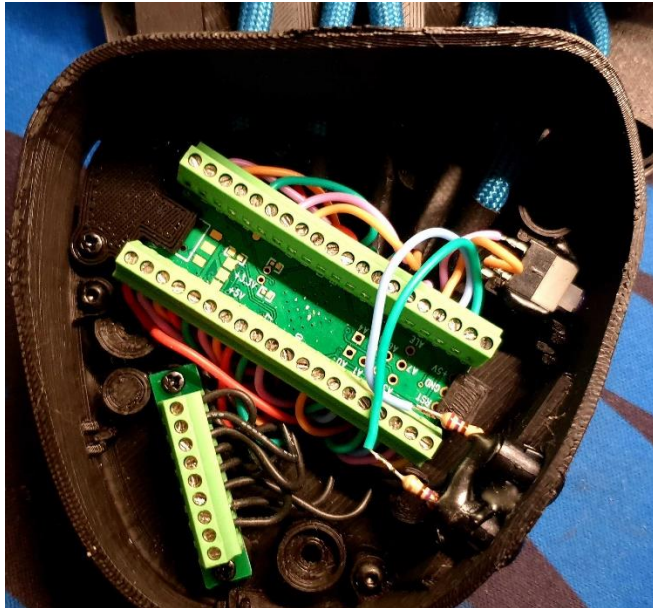
**Reset Settings** this option will reset all settings in the software to defaults.

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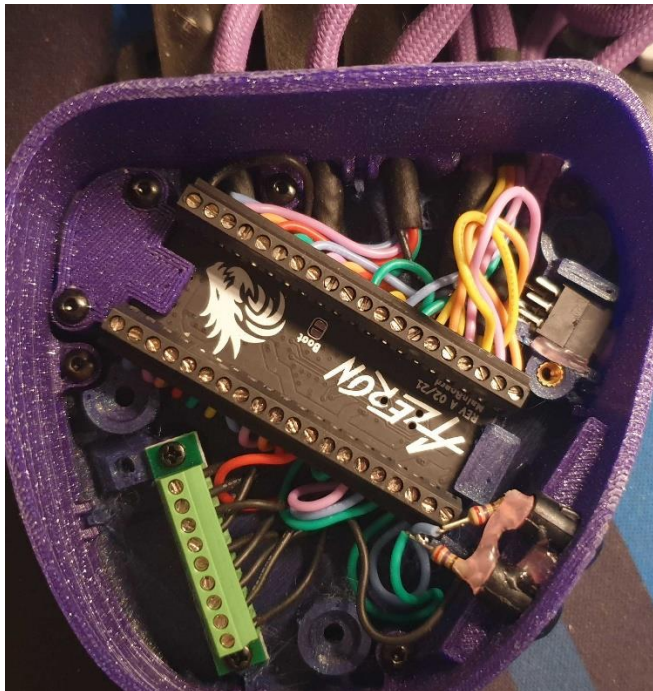
## 6. HOW TO UPDATE FIRMWARE MANUALLY

**Warning!** By updating the firmware, you may lose your saved profiles and settings. Export them before flashing firmware ([In Settings/Profile](#))!

The manual firmware installation is possible only for keypads with a Teensy PCB. Here are the pictures on the difference:



Teensy PCB



New Azeron PCB

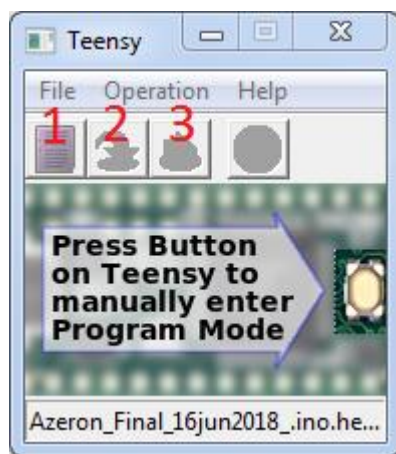
Download the Azeroon firmware from <https://www.azeron.eu/downloads/> Make sure you download the correct one – Classic and Compact keypads has different firmware than Cyborg and Cyborg Compact.

### Step 1:

Plug in your keypad to PC USB slot (don't connect to USB 3.0 if you don't have USB 3.0 drivers installed)

### Step 2:

Open teensy.exe software (included with the firmware)

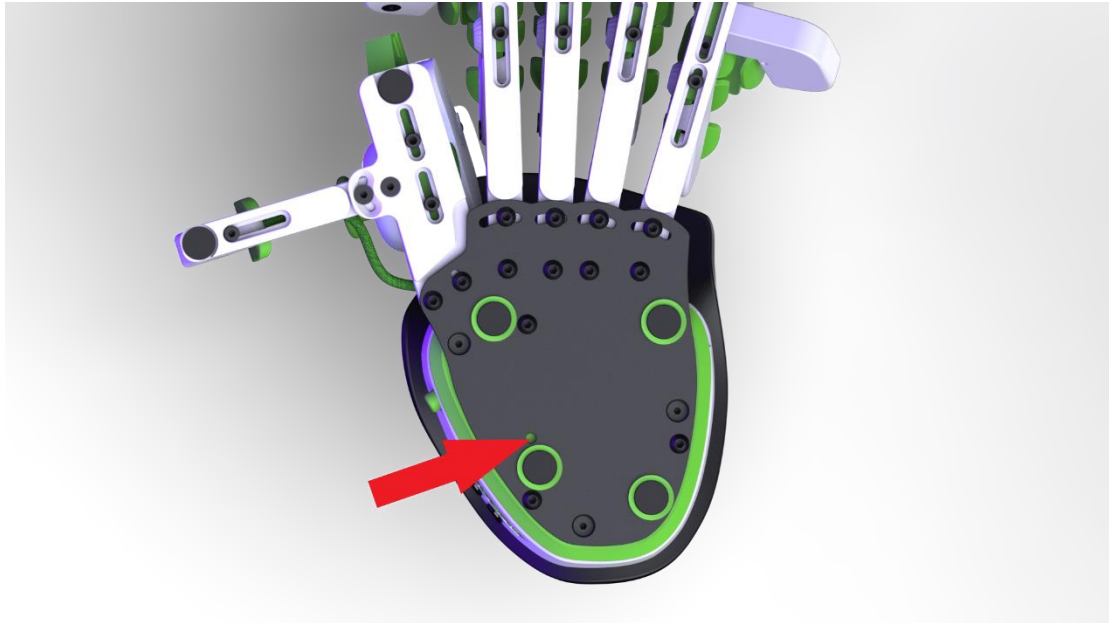


### Step 3:

Press on the first button to load hex file (for example, "Azeron-fw-60.hex")

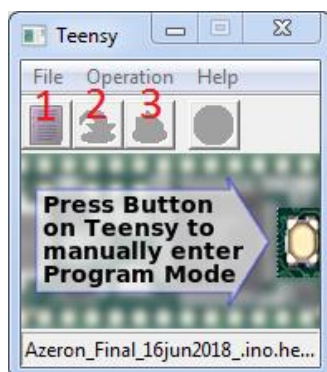
### Step 4:

Reset Azeroon keypad by pressing reset button in the hole shown in the picture (you can use the included hex screwdriver):



### Step 5:

Wait until button 2 is available in Teensy software. Then press button 2 to upload firmware.



### Step 6:

After that, press button 3, to restart Teensy. Wait until at least one Profile LED has turned on at the side of the keypad (that means, keypad is on and running).

Now unplug and re-plug the USB cable in PC, before launching Azeron software.

Done!

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## 7. TIPS AND TRICKS

- It is possible to setup **button combinations**, by putting Shift (or Ctrl, or Alt) on the mouse and combine it with buttons on the keypad, to setup more than 22 commands. For example, Shift + 1, Shift + A, Ctrl + W etc. Or you can use [Layering feature](#) in software profiles to get more keybinds.
- To make it easier to get used to the keybind setup – we recommend creating a new character in the game and **learn new skills** one by one together with your character while leveling or start with games that doesn't have a lot of keybinds
- It is known that using **grip tape** on the buttons and palmrest feels premium :)
- It is possible to change **thumbstick caps** to Elite xbox magnetic caps
- Our [Discord community](#) is the best place where to solve problems, search keybinds, get ideas and find likeminded people
- To get access to more **advanced macros** and other options– it is possible to setup Azeron keypad as generic joystick and then use 3<sup>rd</sup> party software JoyToKey to setup more advanced macros on each button.
- Azeron keypads are compatible with 3<sup>rd</sup> party softwares, such as reWASD and JoyToKey.

**WARNING! Do not keep the keypad near heat sources or in hot places!**

**Contact us** for more information: [info@azeron.eu](mailto:info@azeron.eu)

**Discord** community and support: <https://discord.gg/9tw9pju>

**Webpage:** [azeron.eu](https://azeron.eu)