# Azeron Gaming Keypad

Manual

## TABLE OF CONTENTS

# 1. 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 keypad comes with 26 programmable buttons and an analog thumbstick for complete control and maneuverability over your game.
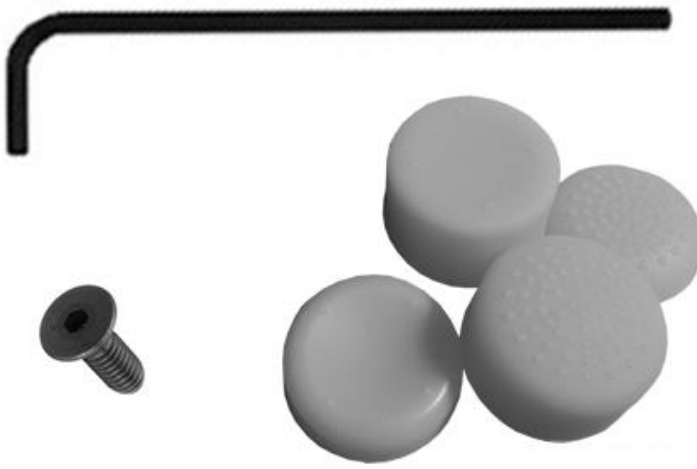
Its ergonomic wrist pad, adjustable key towers and adjustable thumb module delivers a perfect fit for your arm and minimized fatigue over extended gameplay.
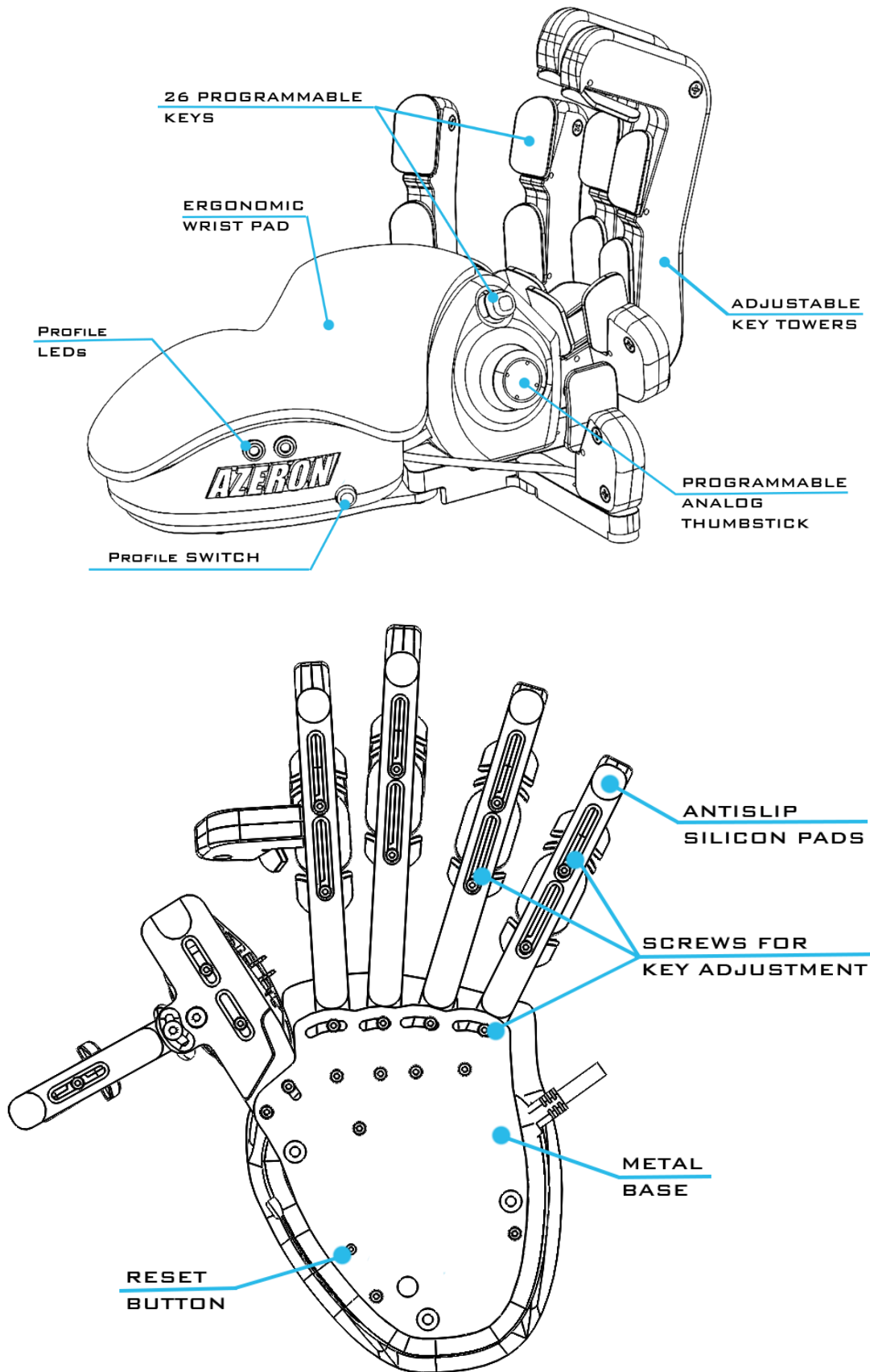
## 2. FEATURES

- 19 programmable buttons on towers
- 7 programmable thumb buttons
- A programmable analog thumbstick
- Adjustable button positions to fit your hand
- Stable metal base with antislip silicon pads
- Braided tower cables
- 2 meter (6.5 feet) USB cable
- Programmable Teensy++ 2.0 brain
- Easy accessible reset button

## PACKAGE CONTENTS

- Azeron gaming keypad
- USB cable
- Hexagon key for button adjustment
- Additional thumbstick caps (different shape)
- One hex screw for setting up the small tower near thumbstick
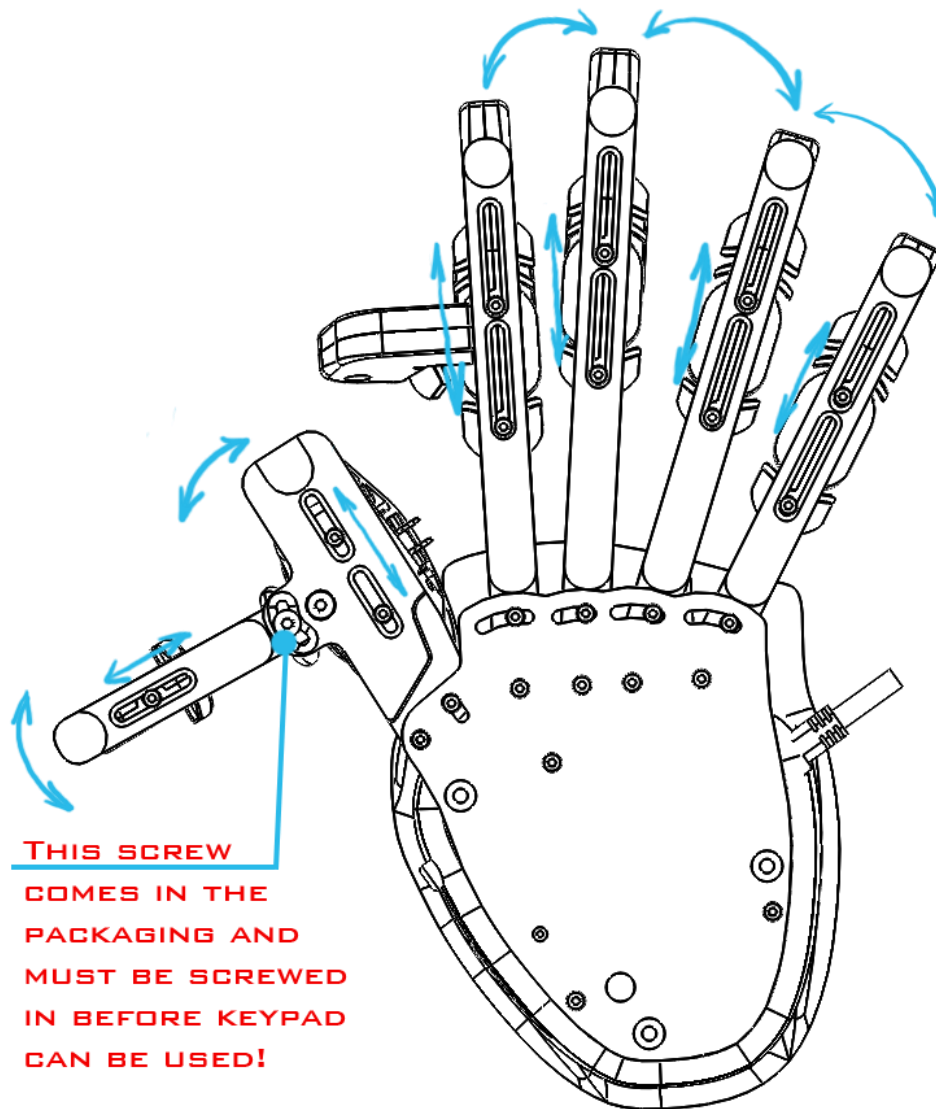
# 3. DEVICE LAYOUT

26 PROGRAMMABLE
KEYS

ERGONOMIC
WRIST PAD

Profile
LEDs

ADJUSTABLE
KEY TOWERS

AZERON

PROGRAMMABLE
ANALOG
THUMBSTICK

Profile SWITCH

ANTISLIP
SILICON PADS

SCREWS FOR
KEY ADJUSTMENT

METAL
BASE

RESET
BUTTON

## 4. SETUP YOUR AZERON KEYPAD

By using the included Hex key, it is possible to adjust each key tower position for your hand.



THIS SCREW COMES IN THE PACKAGING AND MUST BE SCREWED IN BEFORE KEYPAD CAN BE USED!
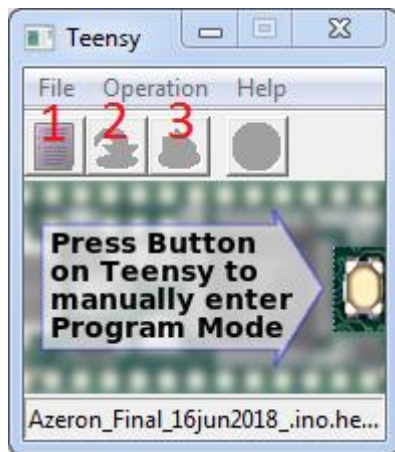
## 5. HOW TO UPDATE FIRMWARE MANUALLY

**Warning!** By updating the firmware, you may lose your saved profile settings.

**Step 1:**

Connect keypad to USB slot (don't connect to USB 3.0 if you don't have USB 3.0 drivers installed)
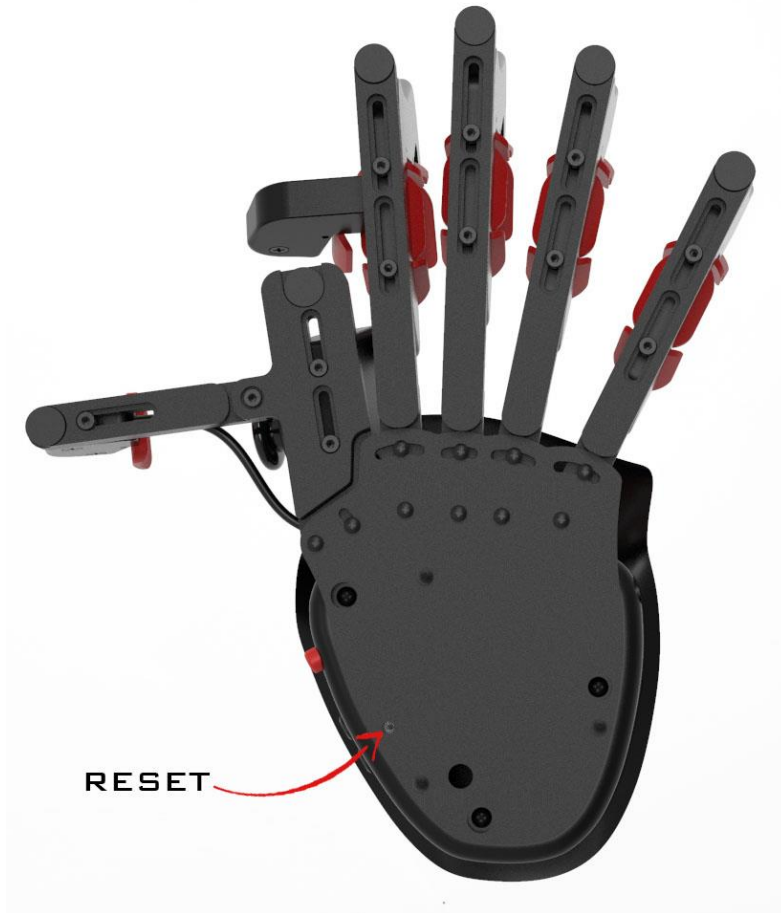
**Step 2:**

Open teensy.exe software



**Step 3:**

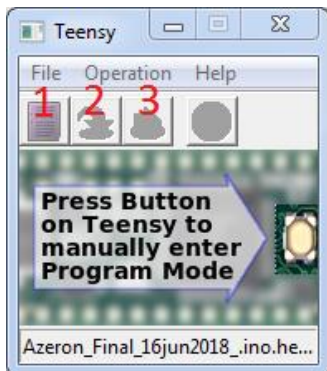Press on first button to load hex file (for example, "Firmware.hex")

**Step 4:**

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

RESET

## 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).
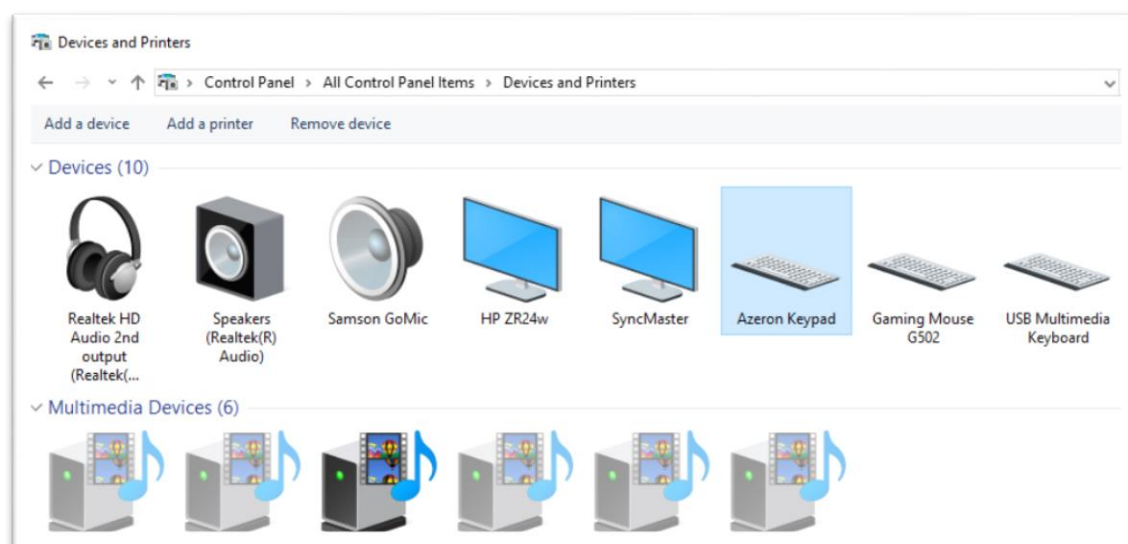
Now unplug and replug the USB cable in PC, before launching Azeron software.
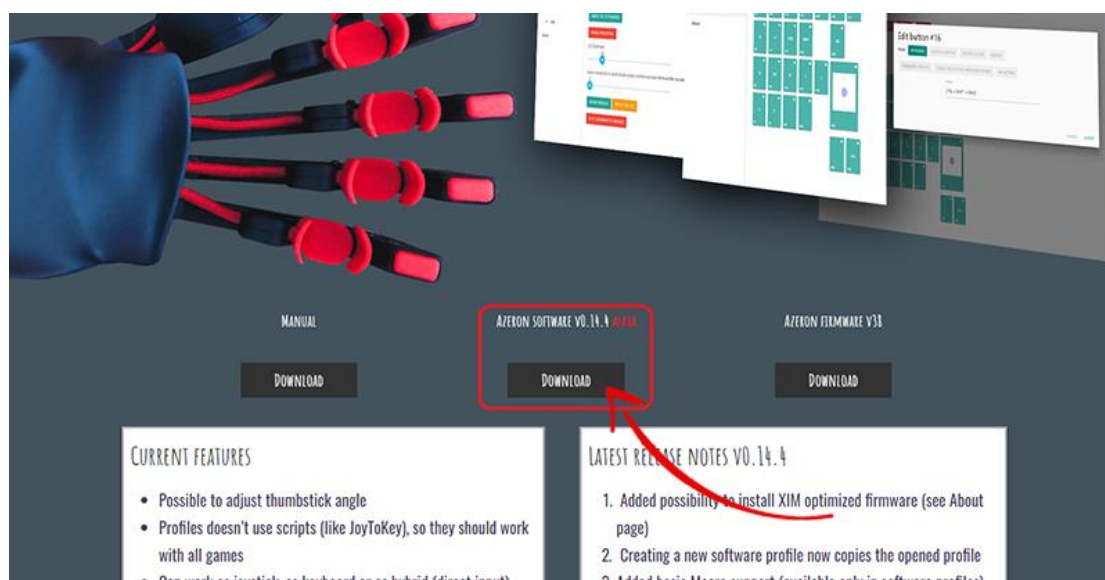
Done!

# 6. HOW TO USE AZERON SOFTWARE

## 6.1 INSTALLING AZERON 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, you will need to download Serial driver and install it.
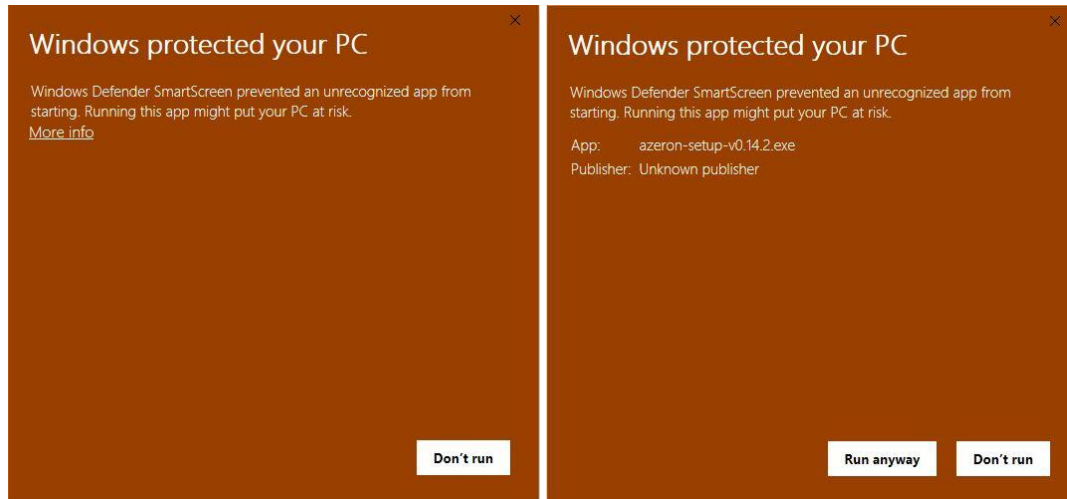
Now, to install Azeron software go to azeron.eu/software and download the latest software version:



Unzip the downloaded file (we have also included the Serial driver, in case you need it). Please pause or stop your antivirus before installation, so that software could work properly and automatically update the firmware too. Various virus scanners routinely complain about

installer. This is because it's a new program to them. You can check out the installer by using VirusTotal and satisfy yourself before you install.

Double click on azeron-setup-v0.14.4.exe to install it. Sometimes Windows may prevent installation, because it is a new software it doesn't recognize:



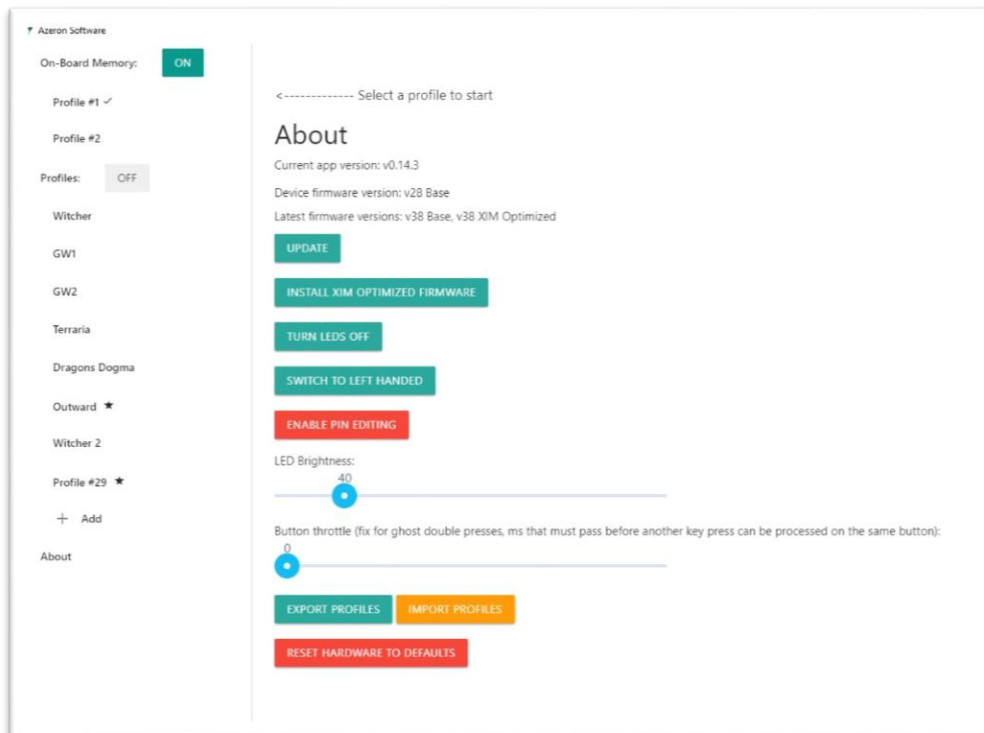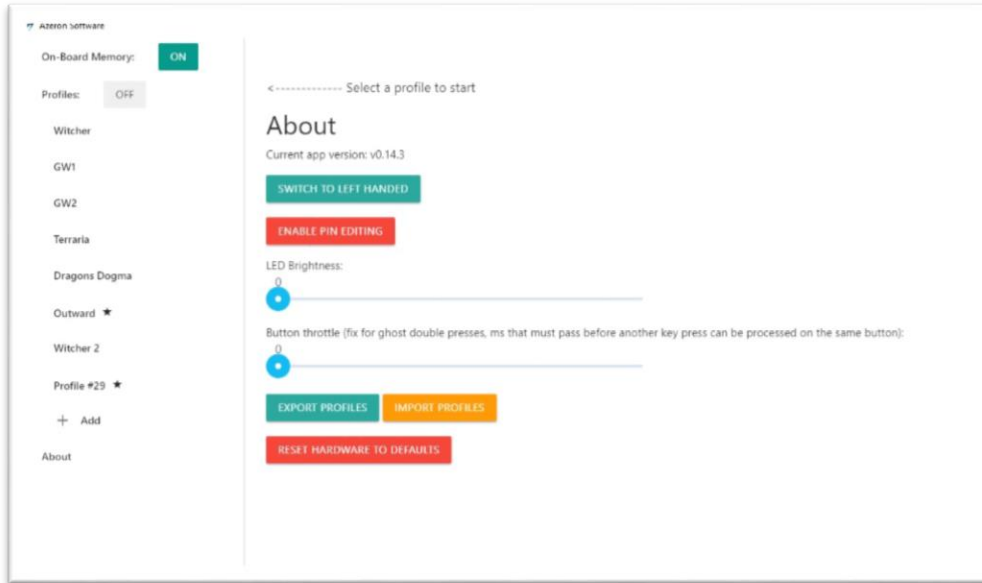Just click on the "More info" and then on "Run anyway".

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.

## 6.2 WORKING WITH SOFTWARE

Plug in the keypad USB cable in PC and then launch the Azeron software.

In case the Azeron software doesn't show profiles in onboard memory and a lot of features are missing in About page, then you should close the software, unplug USB cable, wait until Windows no longer see the keypad, then plug in back the USB cable, turn on software again.

Here you can see comparison. In first picture the software does not recognize the keypad fully (missing profiles in On-board memory). In second picture the software has all the features.

## 6.2.1 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 (through XIM) and it will work with the saved settings). If you are using only on-board profiles, then Azeron software doesn't need to run while gaming, it is used just to setup buttons. If you are using software profile, then the Azeron software needs to run while playing the game.

## 6.2.2 BUTTON SETUP
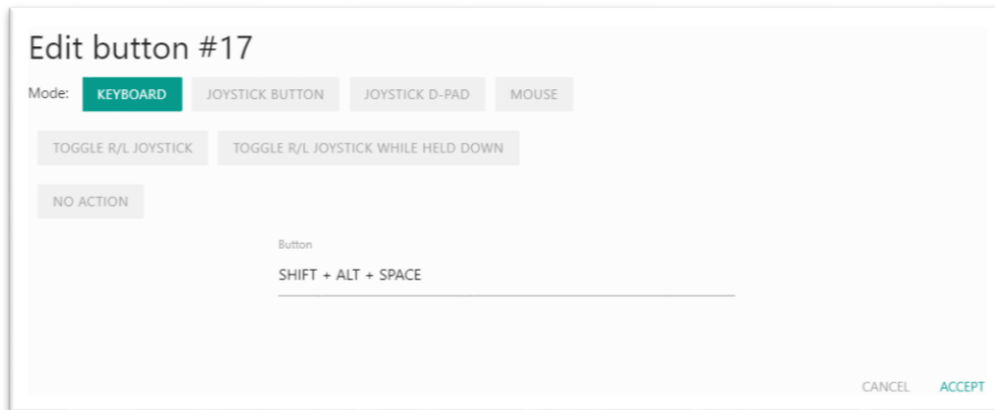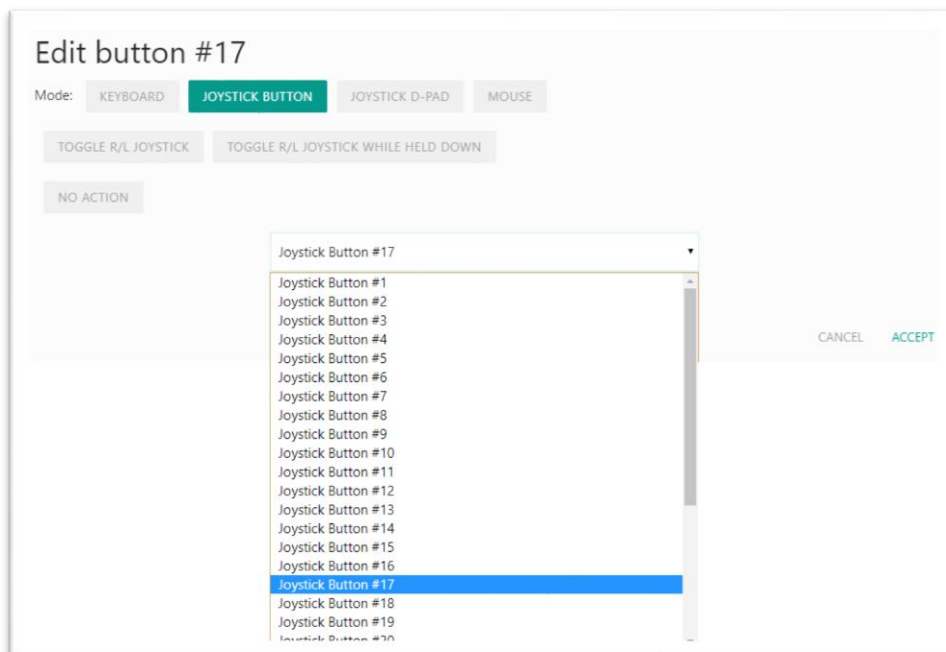
When pressing button on the keypad, the corresponding button will light up in the Azeron software.

To setup buttons, click on the button you wish to setup, then choose between several modes: keyboard, joystick, mouse, toggle or no action.

For **keyboard mode** you can setup any keyboard button to be used on Azeron keypad. It is also possible to setup button combinations on one key press.
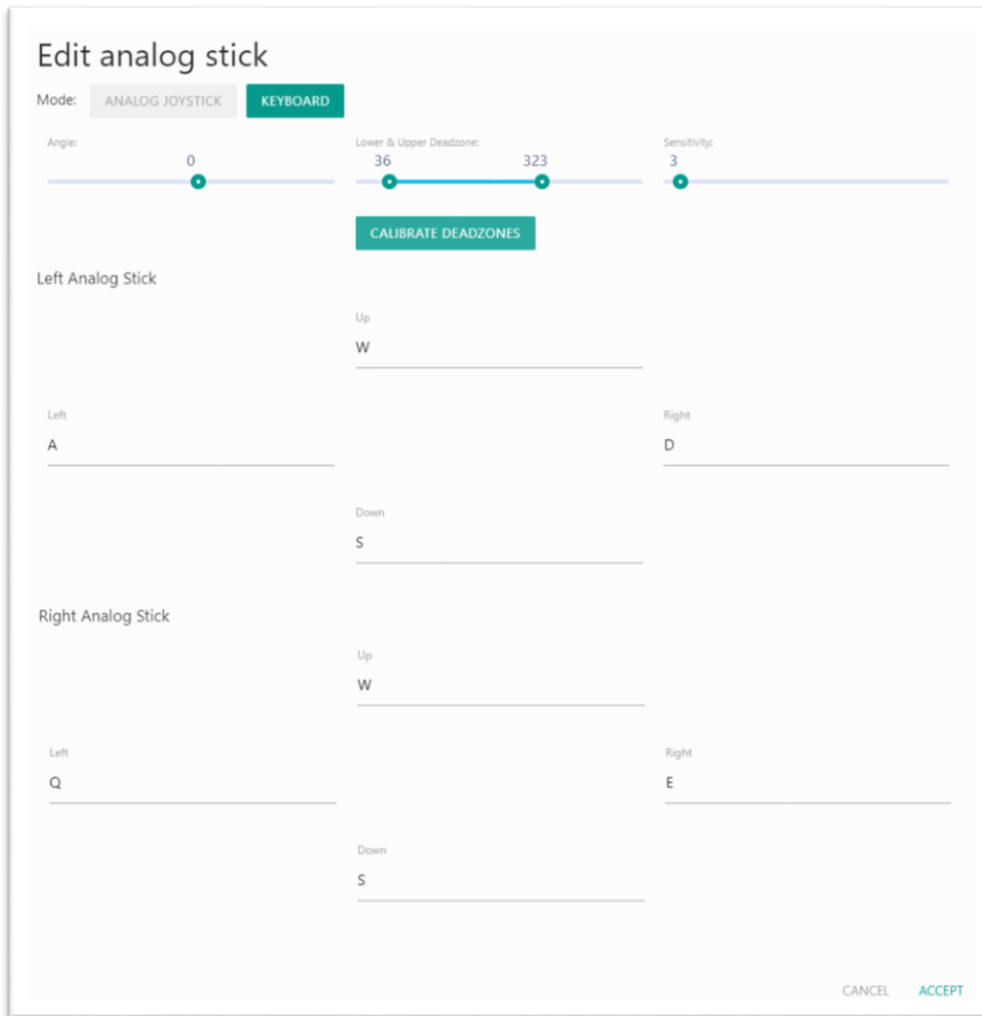
In **joystick mode** the keypad will act as a joystick button (it can be used in games which require gaming controllers (direct input)). If you are using Azeron keypad on consoles through XIM device, then you need to setup all buttons as joystick buttons.



In **Joystick D-Pad mode** the button can be setup as any function of the D-Pad (Up, Right, Down Left, Left, etc.).

In **Mouse mode** the button can be setup as mouse button left click, right click, mid-click, forward and backward.

On the keypad there is only one thumbstick, but you can setup a button to switch between two thumbstick settings. In **Toggle R/L Joystick mode**, a button press will toggle between 2 settings in the Thumbstick options. If thumbstick is setup as an analog stick, then it will switch between Left and Right analog stick. 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).

**Mode Toggle R/L joystick while held down** works the same as mode above, but the second thumbstick settings will work only while button is held down.
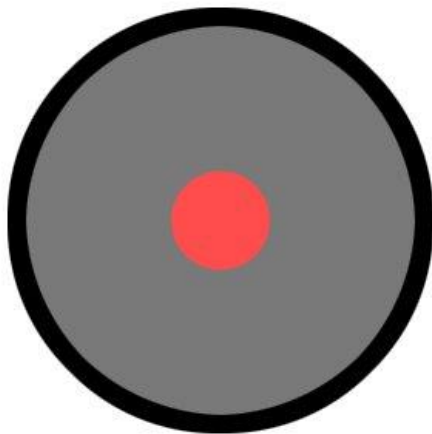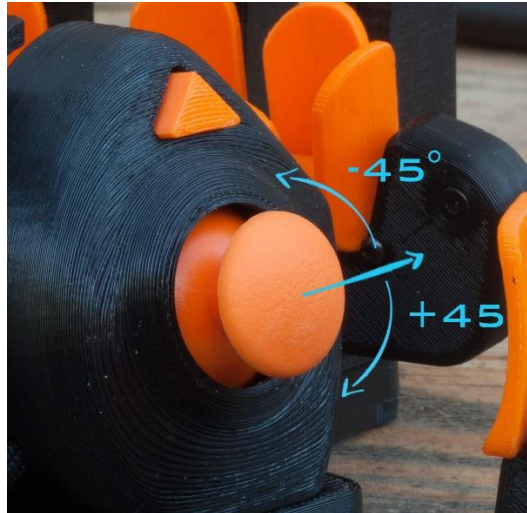
In **no action mode** the button will be "empty" and do nothing.

### 6.2.3 THUMBSTICK SETUP

Thumbstick has 2 modes – it acts as analog stick or as a keyboard buttons.



With **angle setting** it is possible to rotate the forward direction for thumbstick:

**Deadzone** is an area from the center of the thumbstick that won't recognize input if the stick is moved within it. The setting is percentage 0-100% starting from center.



When we think about dead zones, this is usually the kind of thing we're envisioning: a very small area in the center of the stick within which input is ignored. The size of the area is simply our best guess at how far a loose, worn-out stick is likely to wiggle on its own, without physical input.

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.

**Sensitivity** setting controls how sensitive thumbstick feels as percentage 0-100%. The lower the value the more sensitive is the thumbstick. Default is 3 or 4.

## 6.2.4 CALIBRATING DEADZONES

In thumbstick options you can use **Calibrate Deadzones** wizard, which will setup the best deadzone settings for your thumbstick (thumbstick on each keypad may differ a little due to the analog stick manufacturing tolerances and quality control). When opening the Wizard, it will instruct you step by step what must be done. First step is leaving the thumbstick still for 2 seconds (that will calibrate the lower deadzone). Second step is slowly rotating thumbstick in circles (that will setup the upper deadzone).
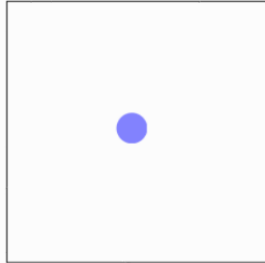
Note! Calibration must be done for each profile separately.

## Calibrate Lower and Upper Deadzones

Please slowly move the joystick a few full circles. The slower you move, the more accurate it will be.
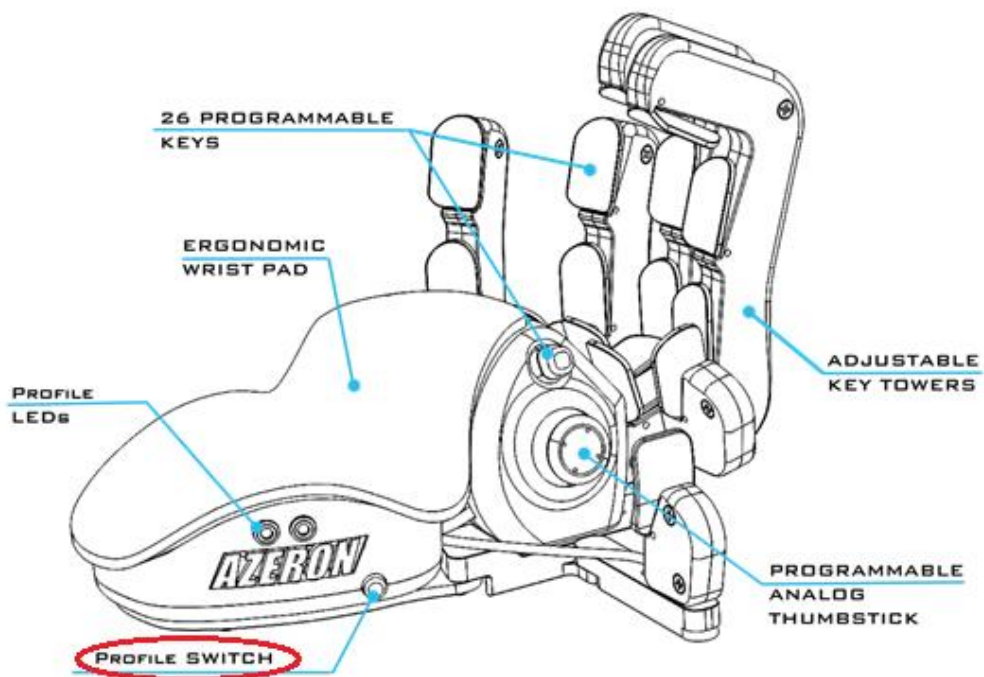
The calibraation will stop on it's own. Just keep making full circles, until it stops.

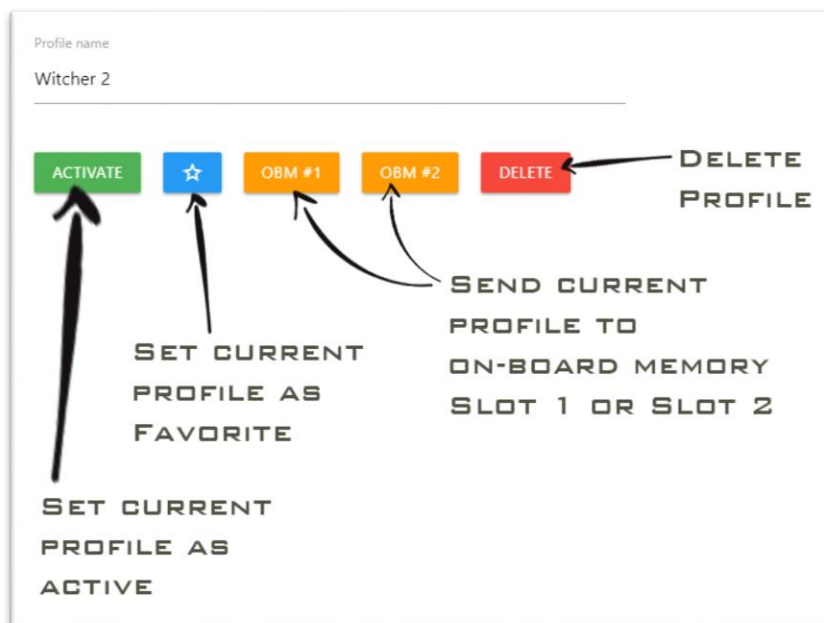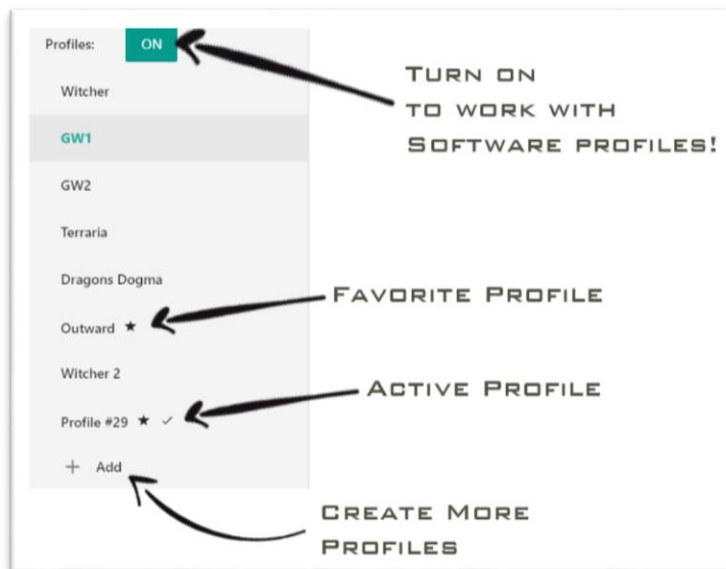Note that, while calibrating, the rotation angle setting is ignored.

## 6.2.5 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 Azeron software must be running in the background while playing the game.

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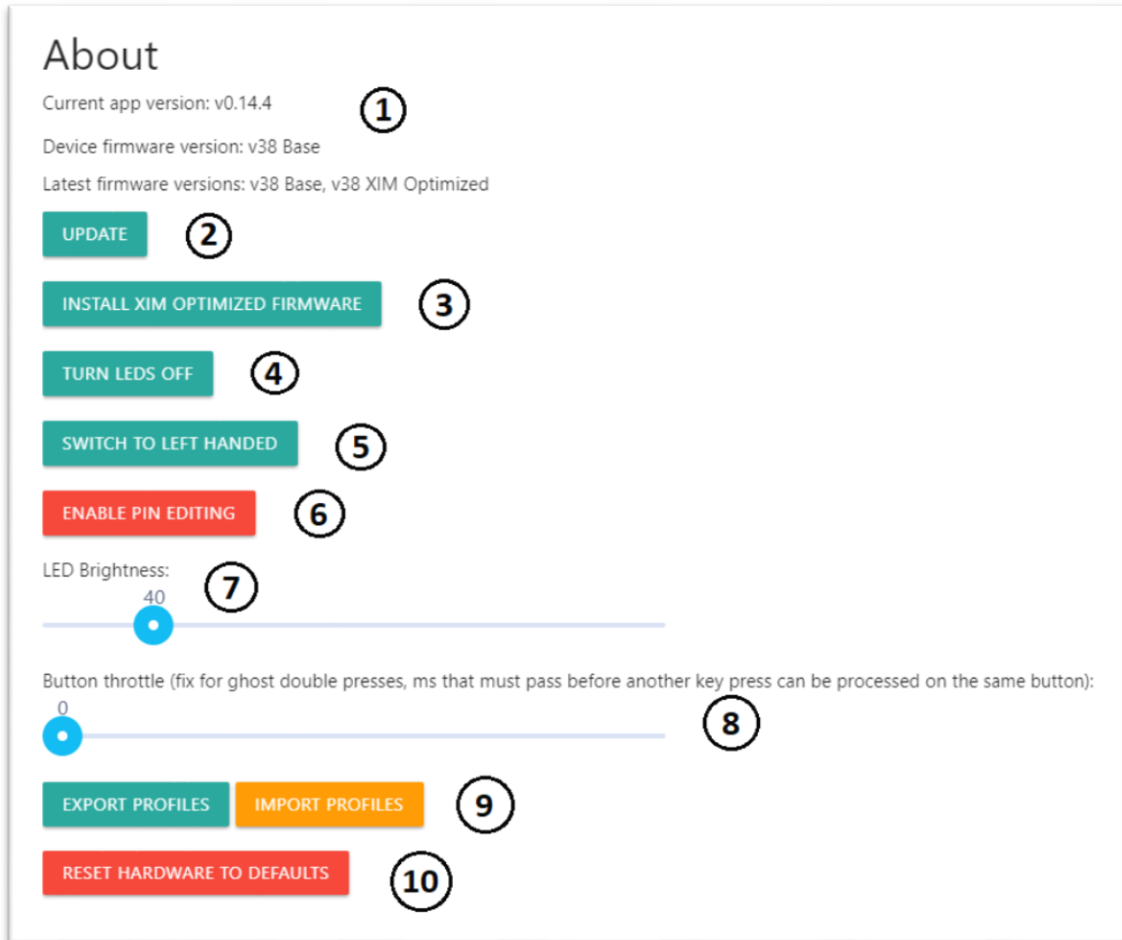




Any software profile can also be sent to On-board memory, by pressing **OBM#1** or **OBM#2**.

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

## 6.2.6 SOFTWARE OPTIONS (ABOUT PAGE)

(1) At the top of the About page you can see the software version number and also what firmware your keypad has and if there is available newer version firmware.
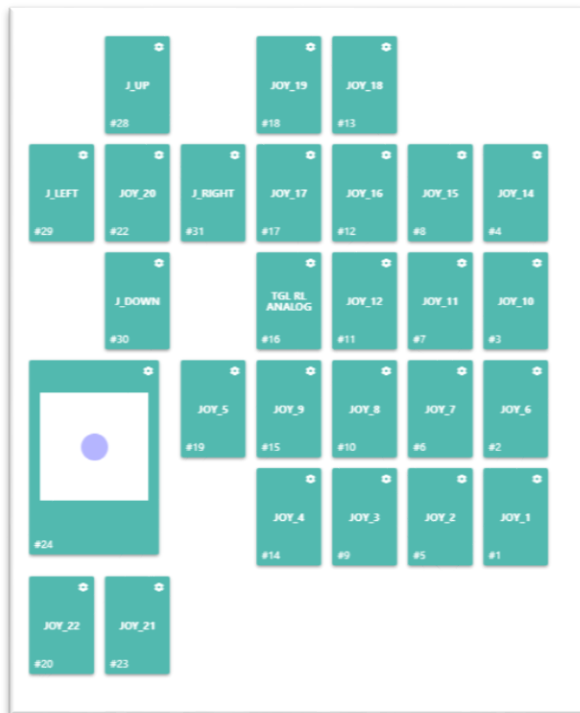
(2) To update to newer firmware version, just press the button **Update** and follow the instructions on the screen: at first step you will have to press on the Update button when ready, then by using included hex screwdriver you need to press Reset button under your keypad, and then just wait until everything is updated. After a firmware is updated we highly recommend re-plugging USB cable and restarting software.



(3) If you are using Azeron keypad on consoles through XIM device, then it is possible to **Install XIM optimized firmware**, which removes all unnecessary features, leaving only one profile in the on-board memory with joystick settings, but still keeping possibility to adjust thumbstick angle, deadzones and sensitivity.

(4) **Turn LEDs off** will completely turn off the Profile LEDs on the side of the keypad.

(5) **Switch to left handed** will switch the button interface for keypad that is meant for left handed people (keypad in right hand, mouse in left hand):

(6) **Enable PIN editing** is meant for advanced button settings, if you ever need to change the PIN layout on the Teensy++ 2.0 board.

(7) **LED brightness** slider adjusts the Profile LEDs on the side of the keypad. The higher the value, the brighter the LEDs will glow.

(8) **Button throttle**. In case one or more of the buttons are starting to make double clicks, 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.

(9) **Import / Export Profiles**. You can back up all of your profiles in one .JSON file, to prevent any accidental deletion when reinstalling software or Windows, updating firmware, etc.

(10) **Reset hardware to defaults**. This option will delete all on-board memory profiles, restores everything to default settings. It is the same as reinstalling firmware in the keypad.

## 7. TIPS AND TRICKS

- It is recommended to setup space bar button on the mouse, so the running and jumping in the same time is effortless
- 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.
- To make it easier to get used to the key setup – we recommend creating a new character in the game and learn new skills one by one together with your character
- In case the software doesn't recognize keypad, you need to close the software, remove USB cable from PC, wait until Windows no longer see the keypad, then plug in back the USB cable, turn on the software again (see page 9 and 10)

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

Contact for more information: azeron.keypad@gmail.com

Facebook: https://www.facebook.com/Azeron.Gaming.Keypad/

Webpage: azeron.eu