

Laser Projection Keyboard

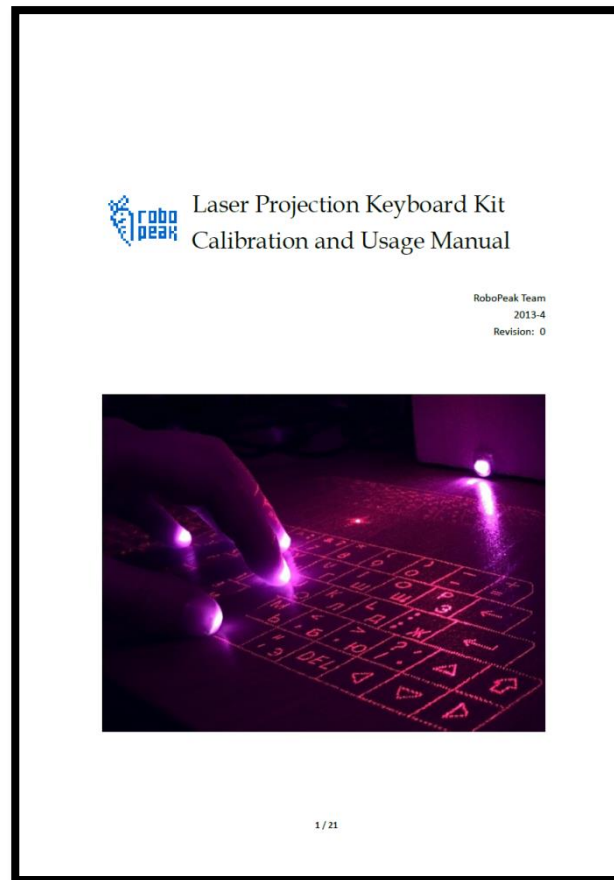
Quick Start Guide



RoboPeak Team
2009 – 2013
<http://www.RoboPeak.com>



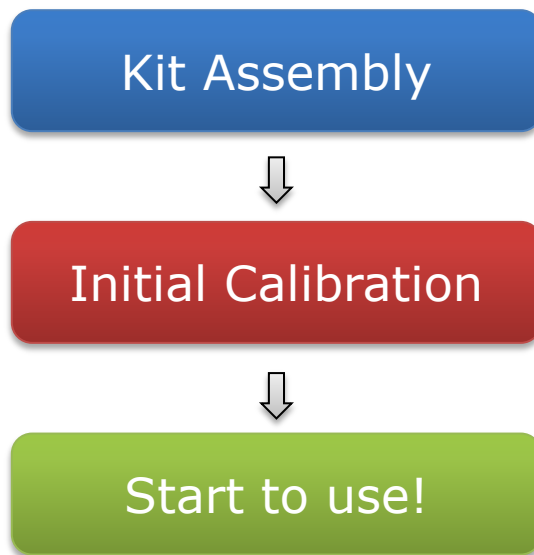
This document only provides basic information to help you use the kit quickly. If you encounter any problem that this guide cannot solve, please refer to the following manual for details:



LaserProjectionKeyboardKit-calibration_and_use

Basic Process of the Kit

You need to assemble and calibrate the kit first to make the kit work.
Enjoy the process of DIY 😊

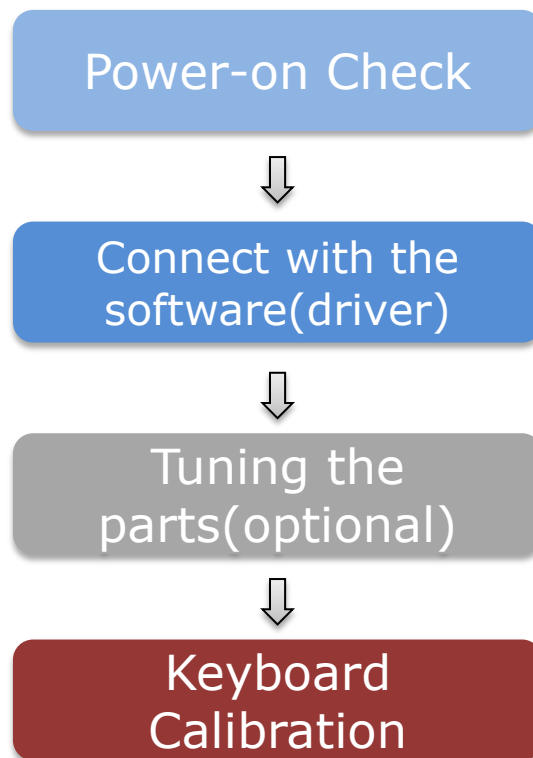


The following document will guide you how to assemble the kit



LaserProjectionKeyboardKit-Assembly

- Basic calibration process



Power-on Check

- Connect the assembled kit with your computer using a USB cable. You should see the keyboard pattern projected on your desktop:



Connect with the Software - 1

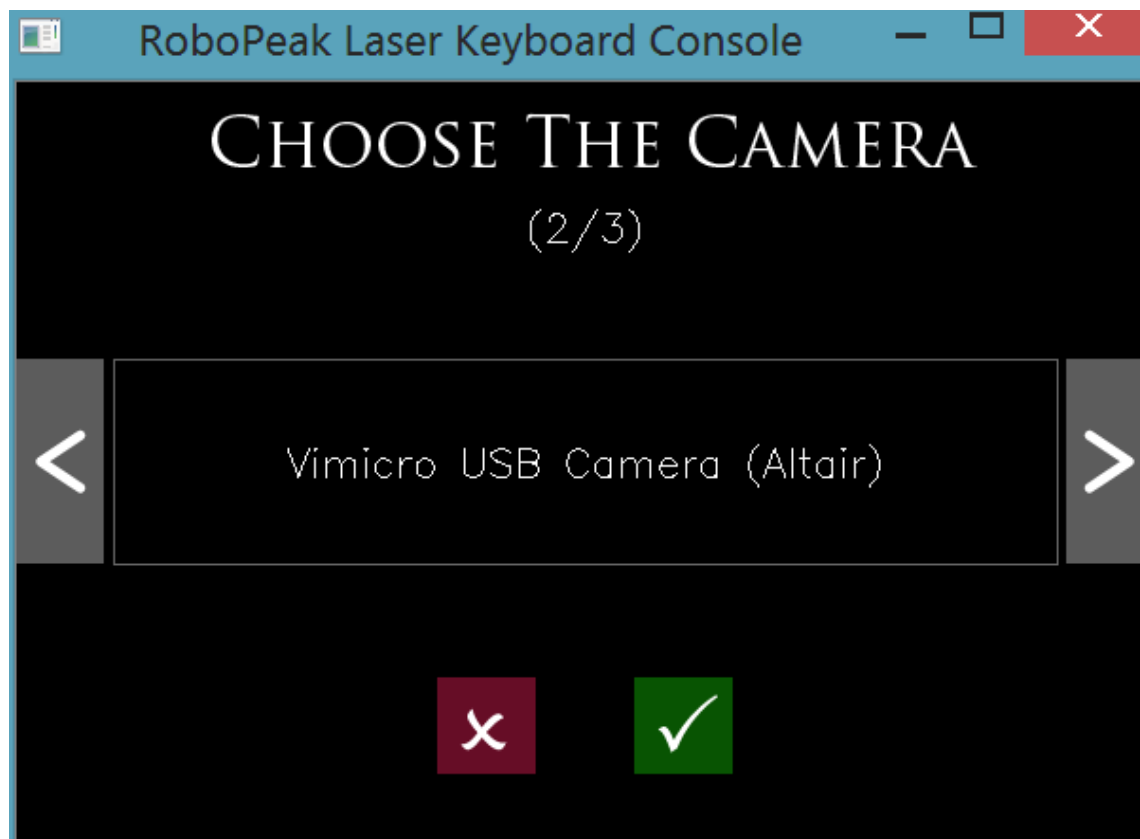
- The kit requires the related signal processing software designed by RoboPeak to work. Please run this software.
- The software supports both Windows and MacOS



laserkbd

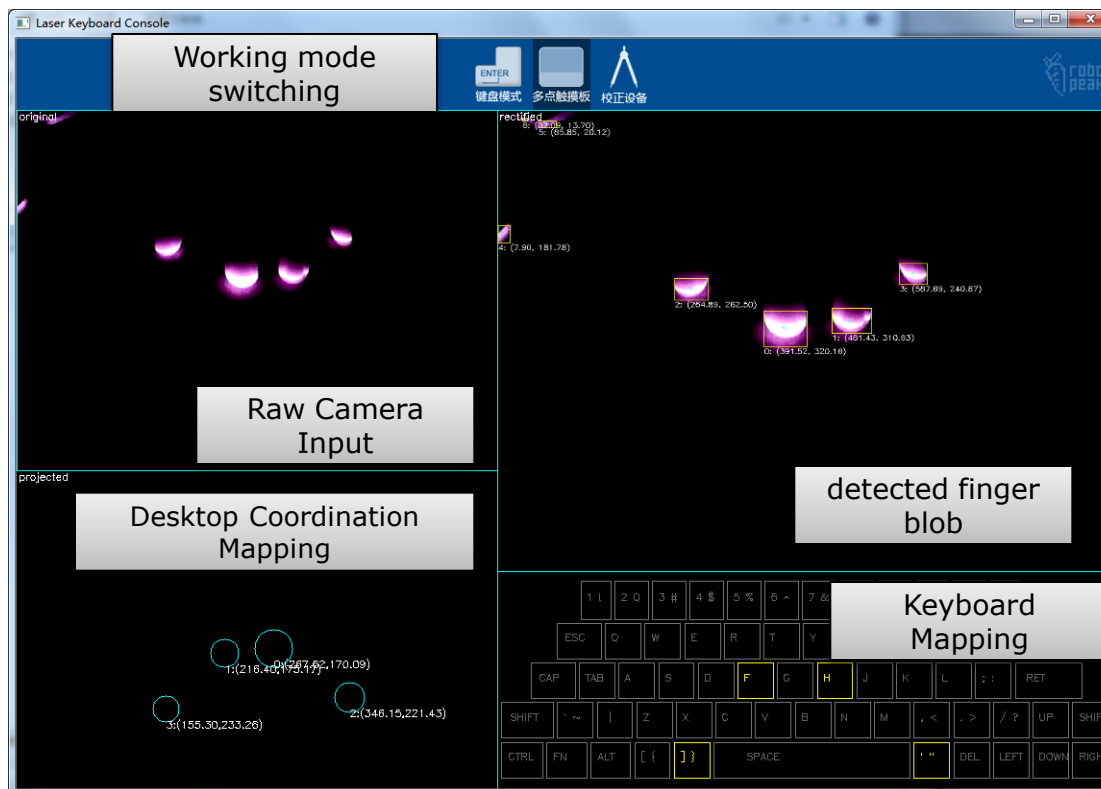
Connect with the Software - 2

- After the software launched, select the camera named: Vimicro USB Camera(Altair)



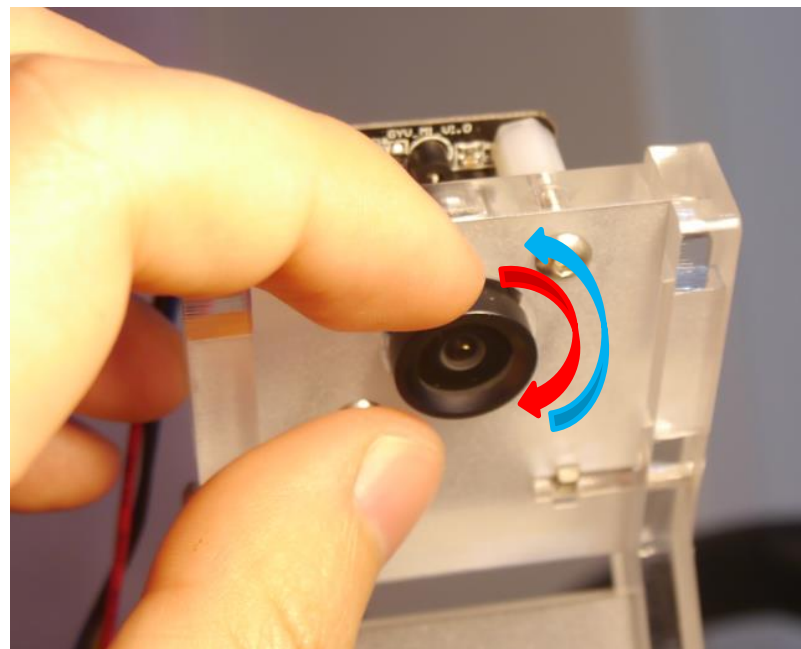
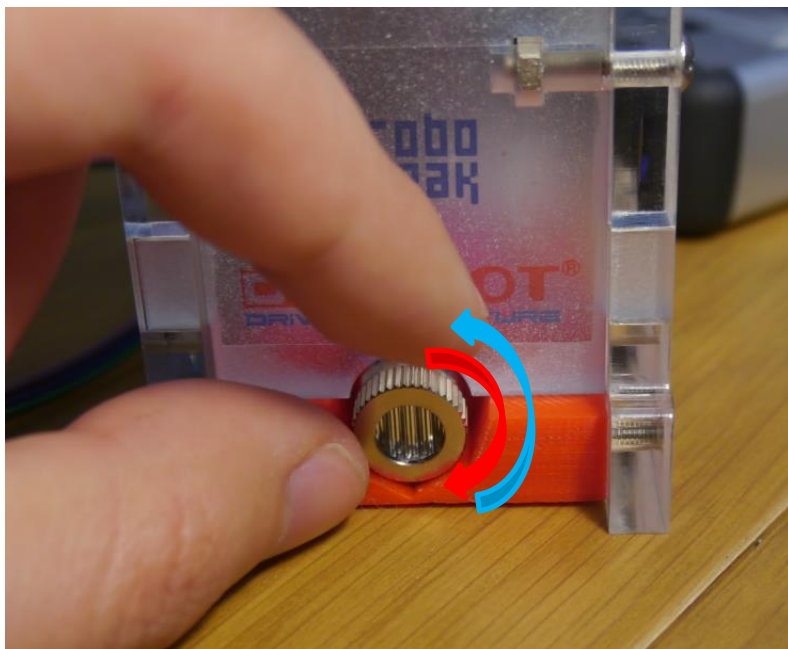
Connect with the Software - 3

- If everything works well, you should see the following window:
- Do not close this window. You will need its help in the following calibration process.



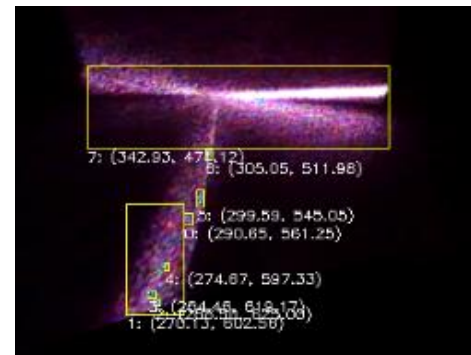
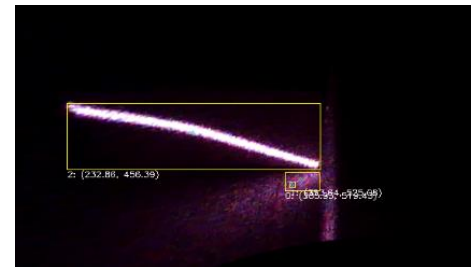
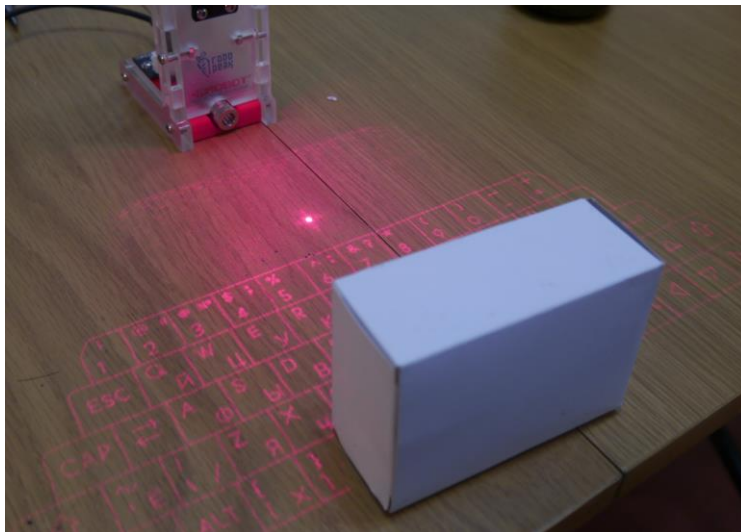
Tuning the parts – 1 (optional)

- You may need to tune the following parts:
 - The direction and heading of the linear laser
 - The focus of the IR camera



Tuning the parts – 2 (optional)

- Prepare a square box with white color and place it in front of the laser keyboard
- Check the image displayed on the software window and adjust the laser head.

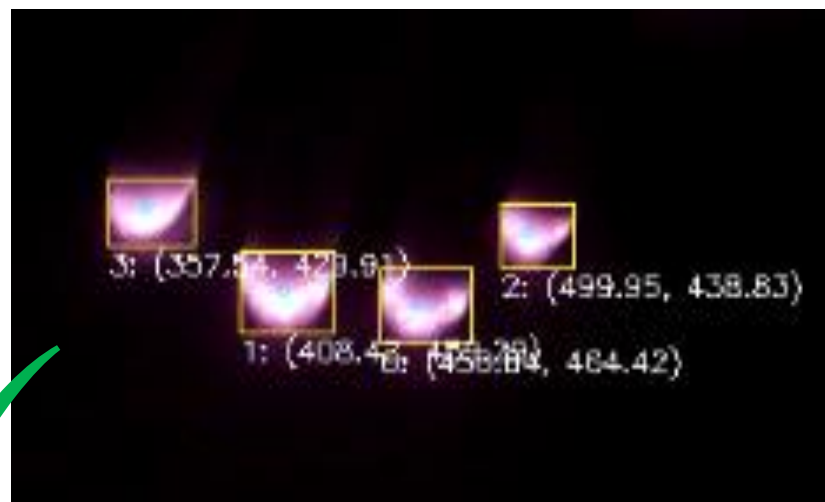


Tuning the parts – 3 (optional)

- Adjust the camera lens and check the image displayed on the software window to set the correct focus.



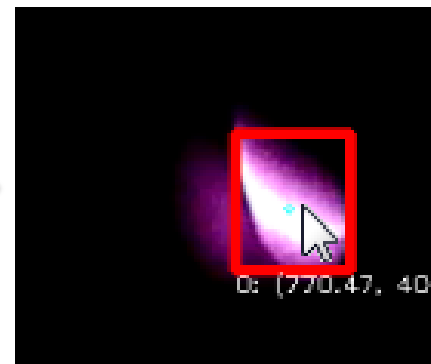
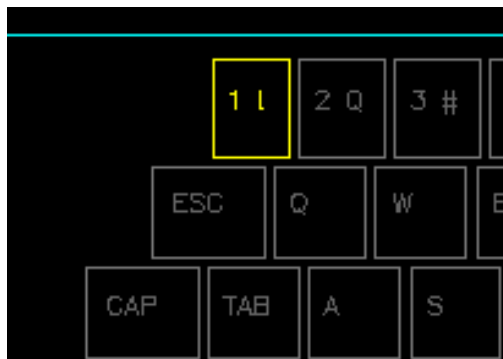
Not focused, the image is blurred



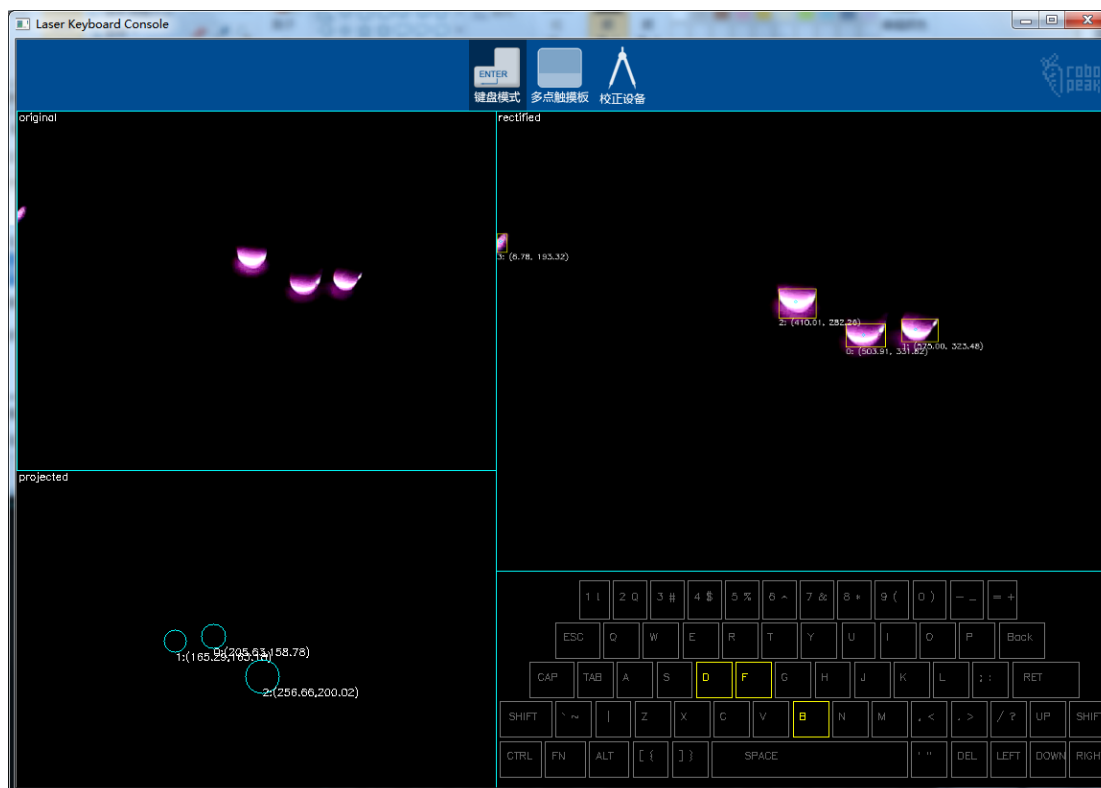
Correctly focused, the image is clear

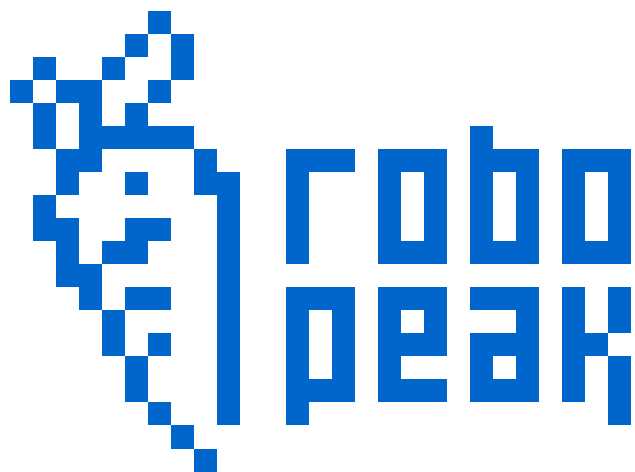
Keyboard Calibration

- Follow the tips displayed on the software window:
 - Place your finger to the place which is indicated by the flashing “key” on the software window
 - Click the related light blob on the window.
 - Repeat the above steps until the calibration is done.



- Your laser projection keyboard should work like a normal keyboard after you finished the previous steps in most cases.
- If you feel something wrong, please refer to the more detailed Calibration and Use manual for helps.





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