# Getting Started with oblu

**A. If application is only tracking.**

1. Open the encasing.
2. Connect the battery and close the encasing as shown here.
3. Download and install the Xoblu app from Google Play store in any Smartphone with Android 5.0 or above.
4. Mount the oblu on the shoe. https://www.youtube.com/embed/NzN28zM-Pug
5. Open Xoblu, connect to oblu's Bluetooth and start roaming. https://www.youtube.com/embed/JFGIZ4KD8J8
6. If you want to insert map and tag points click here to understand.(optional)
7. To gain overall understanding about Xoblu's features. https://www.youtube.com/embed/gTIbe6dKuSY (optional)

**B. To log data from oblu's sensor into Windows /Linux PC via USB.**

8. Download and install Atmel USB driver. (free to download) (http://www.inertialelements.com/oblu/resources/avr_cdc.inf)
9. Here is the link for installation manual of Atmel USB driver. (http://www.inertialelements.com/oblu/resources/HowToInstallTheUSBDriver.pdf ).
10. How to update "oblu's" USB driver for Windows. https://www.youtube.com/embed/vn68SkMpZ1M
11. Download and install Python 2.7v. (free to download) (https://www.python.org/ftp/python/2.7.13/python-2.7.13.msi).
12. Download MIMUscope. (free to download) (http://www.inertialelements.com/oblu/resources/MIMUscope.rar)
13. Read this link before running MIMUscope (http://www.inertialelements.com/oblu/resources/README-MIMUScope.txt)
14. How to use "oblu" as a precision IMU. https://youtu.be/F5K0NTu02ro
15. How to analyze data of "oblu's" onboard sensors. https://youtu.be/0V-J-47Bmr0
16. How to use MIMUscope for calibrated data. https://youtu.be/wZh45xbIb_M
17. How to apply calibration file to "oblu" using MIMUscope. https://youtu.be/0Tg-m66GiXA
18. Explaining MIMUscope's features[optional] https://youtu.be/U9ZfSwn1tiQ

**C. To calibrate oblu using Python Scripts**

19. Download & install Anaconda 2.7v. (free to download) (https://www.continuum.io/downloads)
20. Download and Install Pycharm-Community- 2017. (free to download) (https://download.jetbrains.com/python/pycharm-community-2017.2.2.exe)

21. Download the Calibration scripts. (https://github.com/oblu-iot/oblu/blob/master/Calibration-Python.rar)
22. How to calibrate "oblu" using Python script. https://www.youtube.com/embed/hcjFDpQnHMk (need calibration devices)

### D. Using Python APIs via USB in Windows PC

23. Download scripts from here.

### E. Modifying oblu's firmware

24. Download oblu's open firmware.(oblu's pre programmed firmware is slightly modified version of this version) https://sourceforge.net/p/openshoe/_list/git
25. Download Atmel Studio http://www.microchip.com/avr-support/atmel-studio-7
26. How to compile the firmware of "oblu" https://www.youtube.com/embed/F4uhmESOI2I
27. How to program "oblu" with JTAG https://www.youtube.com/embed/fc1bCBb0DVs (need Atmel AVR Dragon & JTAG Cable)
28. Download USB Boot loader Batch Script http://www.inertialelements.com/oblu/resources/openshoe-bootloader.bat
29. Download and install FLIP from the link.(free to download)
30. How to install USB Bootloader driver for "oblu" https://www.youtube.com/embed/wCzG15_PJQs
31. How to program "oblu" via USB https://www.youtube.com/embed/5Eb2ASxXNiM

### F. Programming BLE of oblu.

32. Download and install PSOC Creator 3.3 or higher.(free to download) http://www.cypress.com/products/psoc-creator-integrated-design-environment-ide
33. Download the firmware for BLE 4.1 (free to download) https://github.com/cypresssemiconductorco/PSoC-4-BLE/blob/0690c59d3354a443bcea2224475308316c46e31e/100_Projects_in_100_Days/Day020_BLE_UART/UART_to_BLE.zip
34. How to program Bluetooth of "oblu". https://www.youtube.com/embed/-V4J3bwZpEE (need Cypress Miniprog 3).