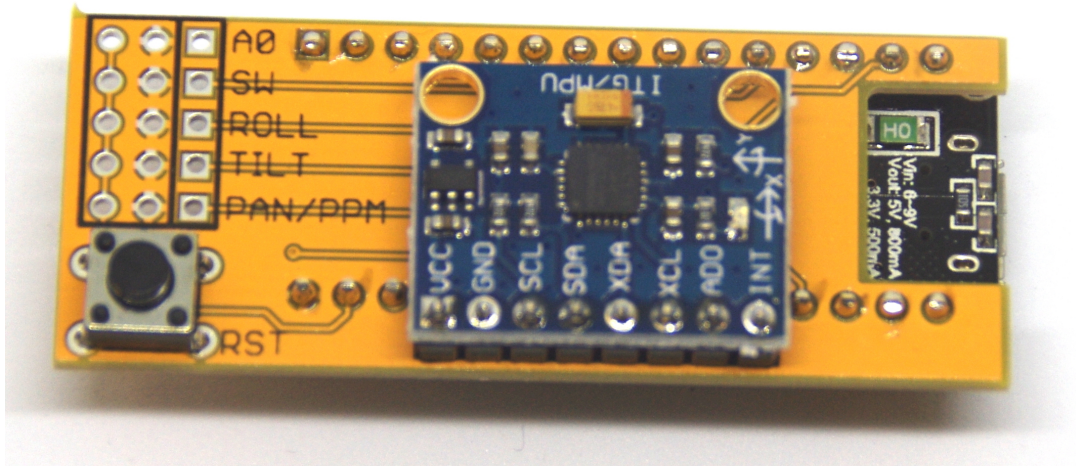
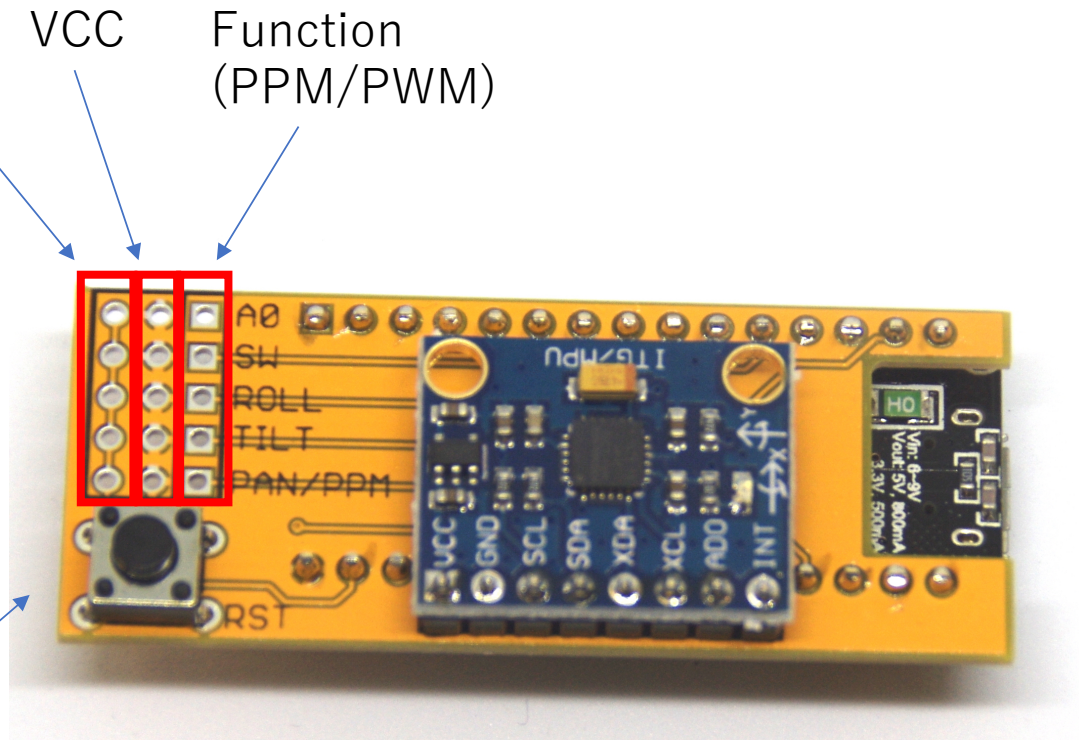
Head Tracker Manual



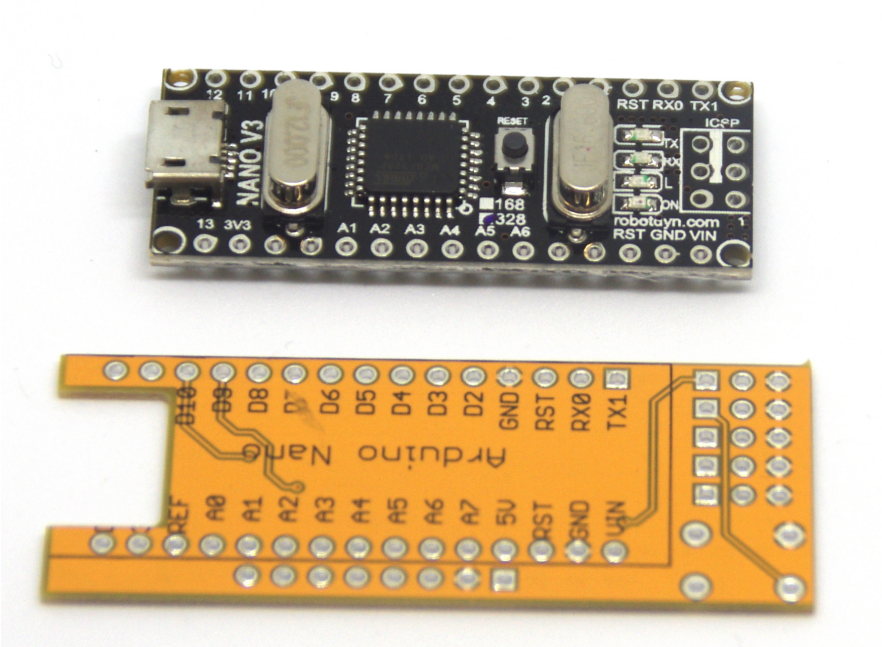
Pin Layout

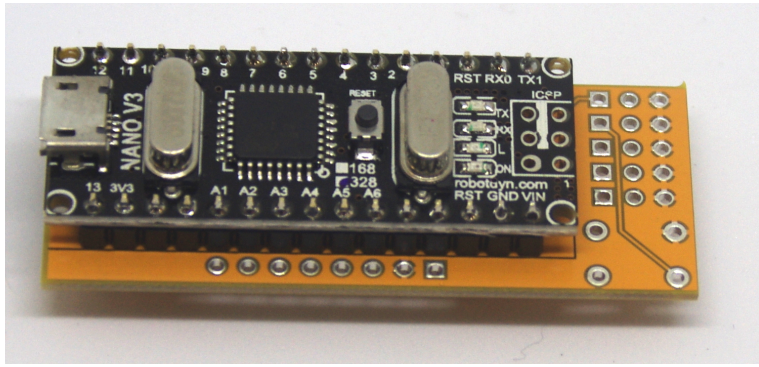


Reset Switch: to reset position to original.

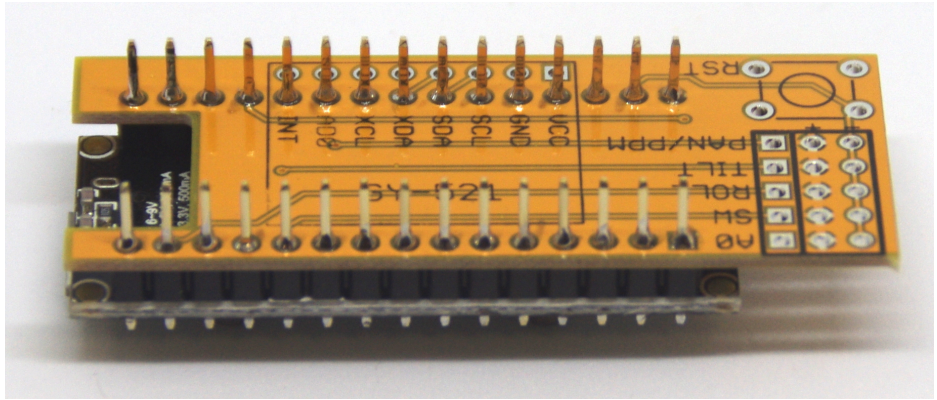
How to solder parts

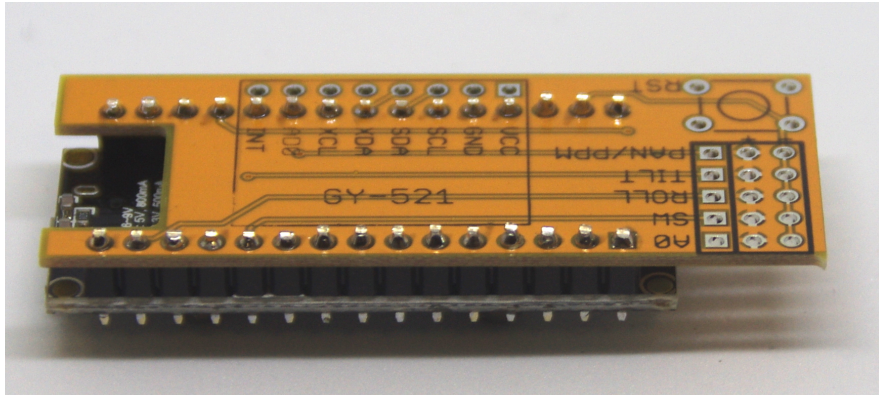
Soldering Arduino nano.



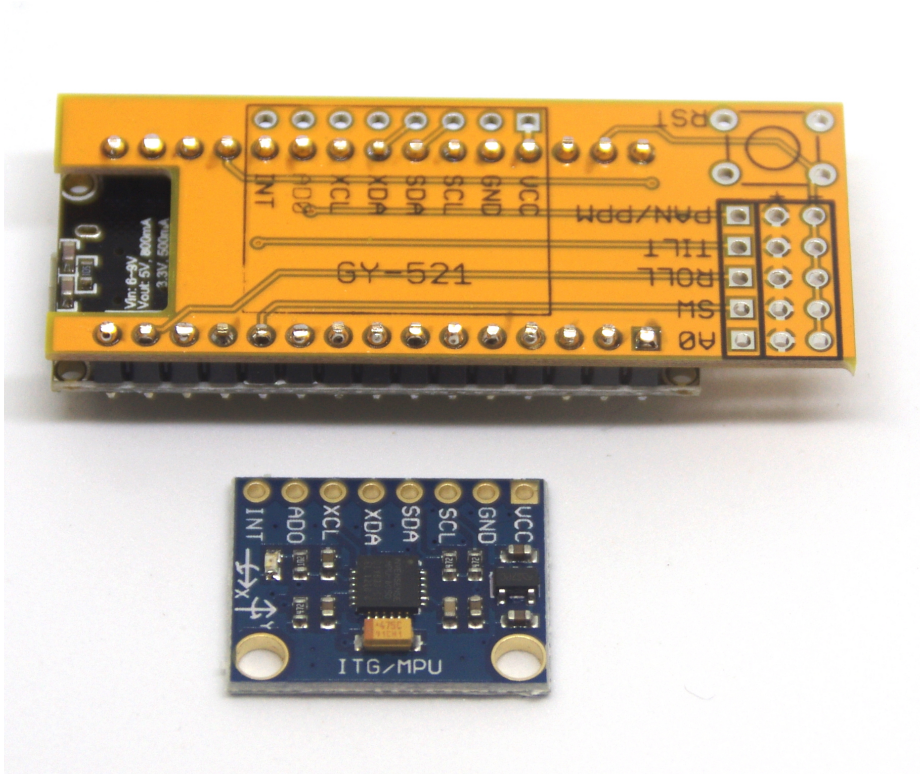


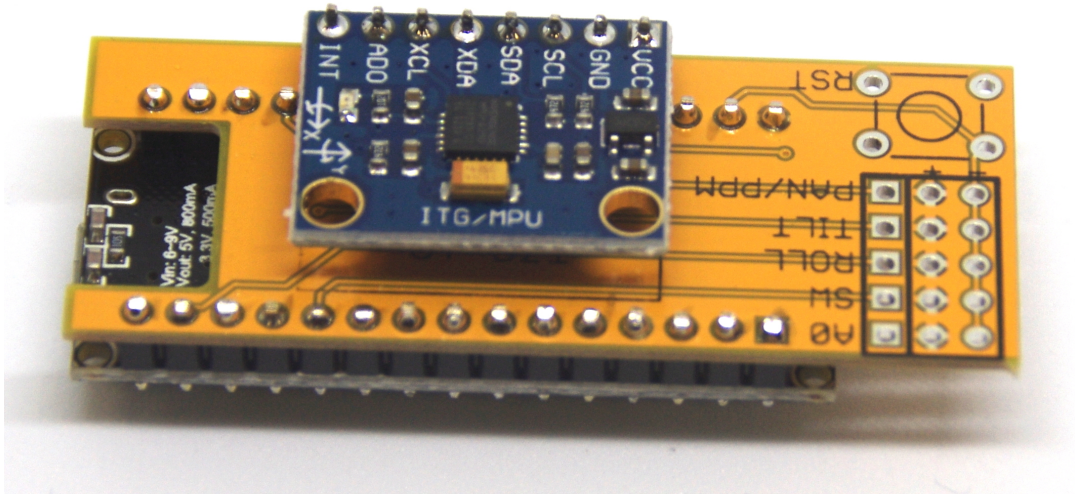
Cutting pins for making space to solder MPU sensor.



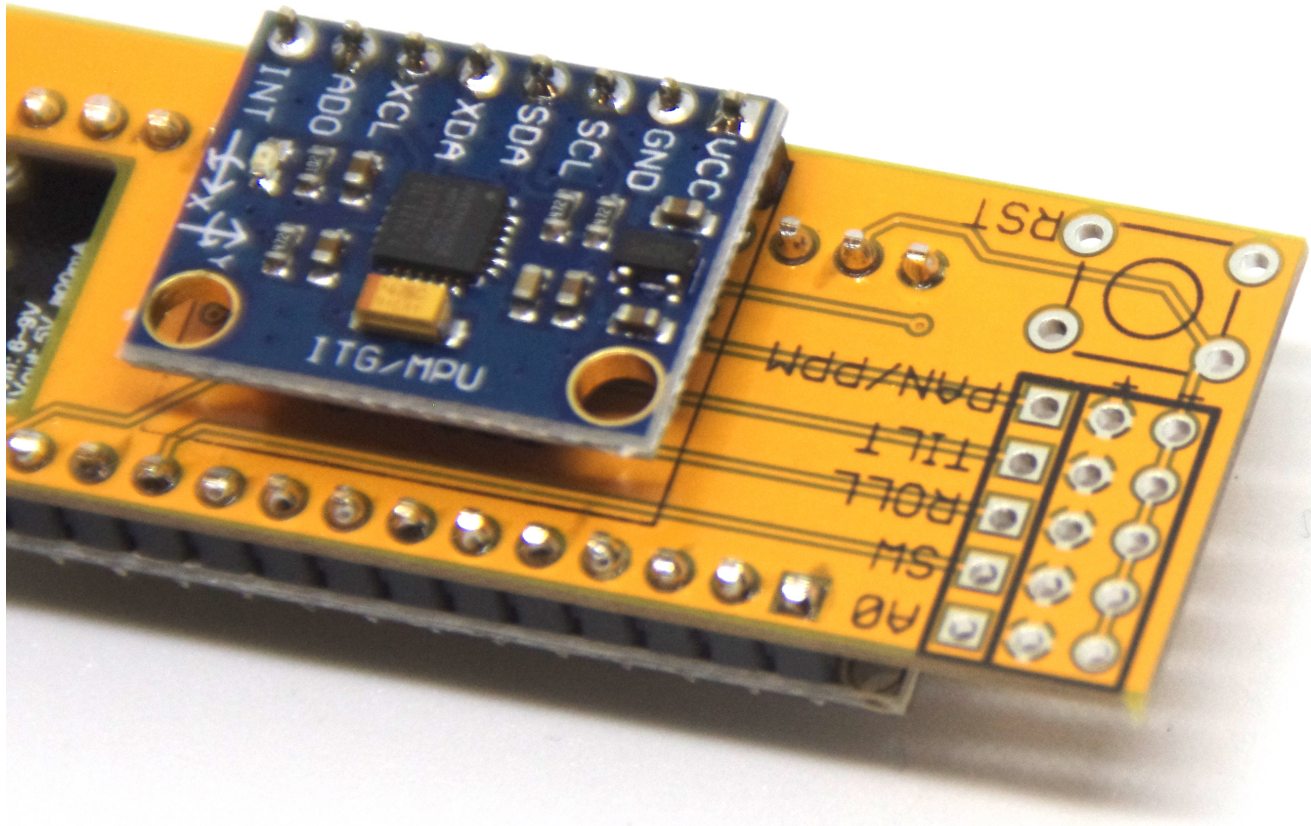


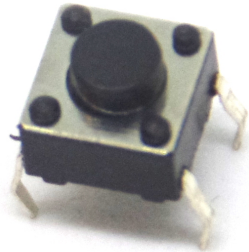
Soldering MPU sensor.

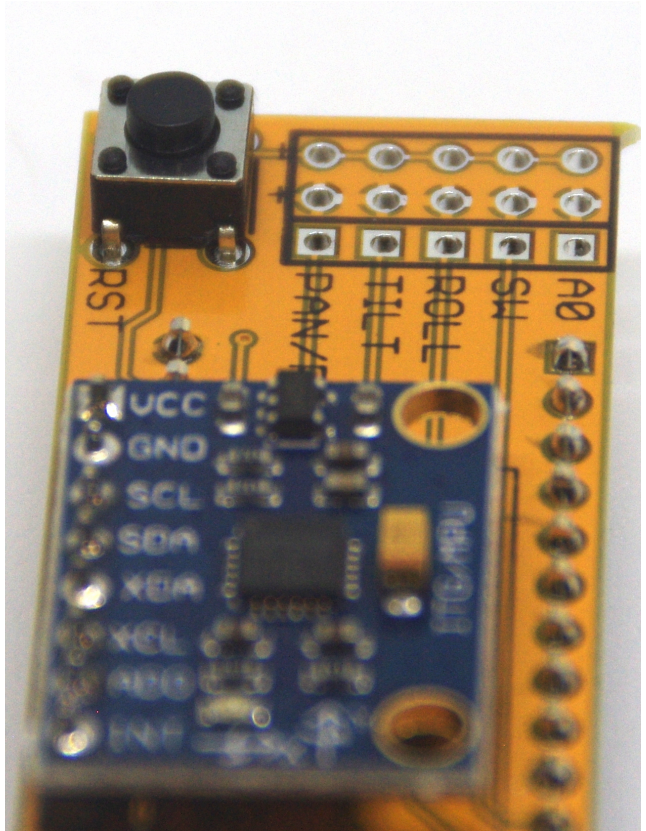




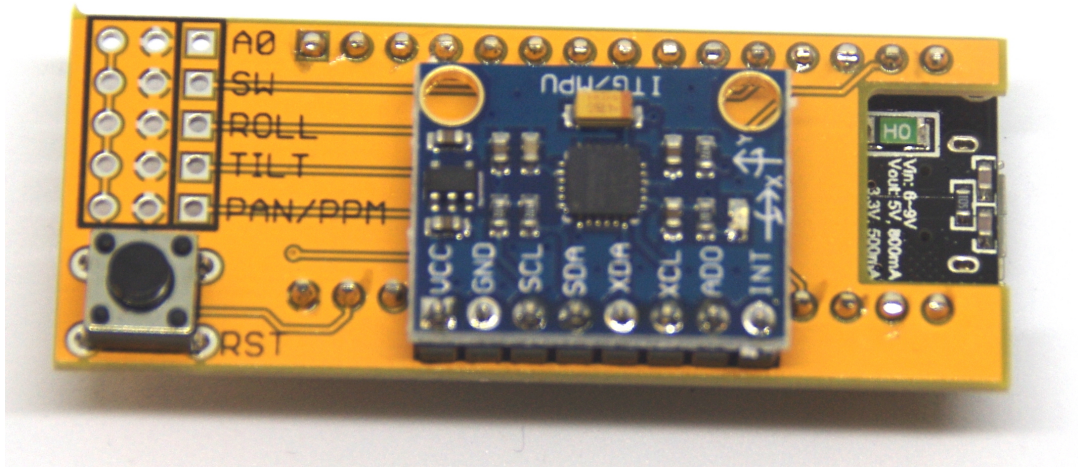
Soldering Reset switch.
(Direction is important. Please check a photo)





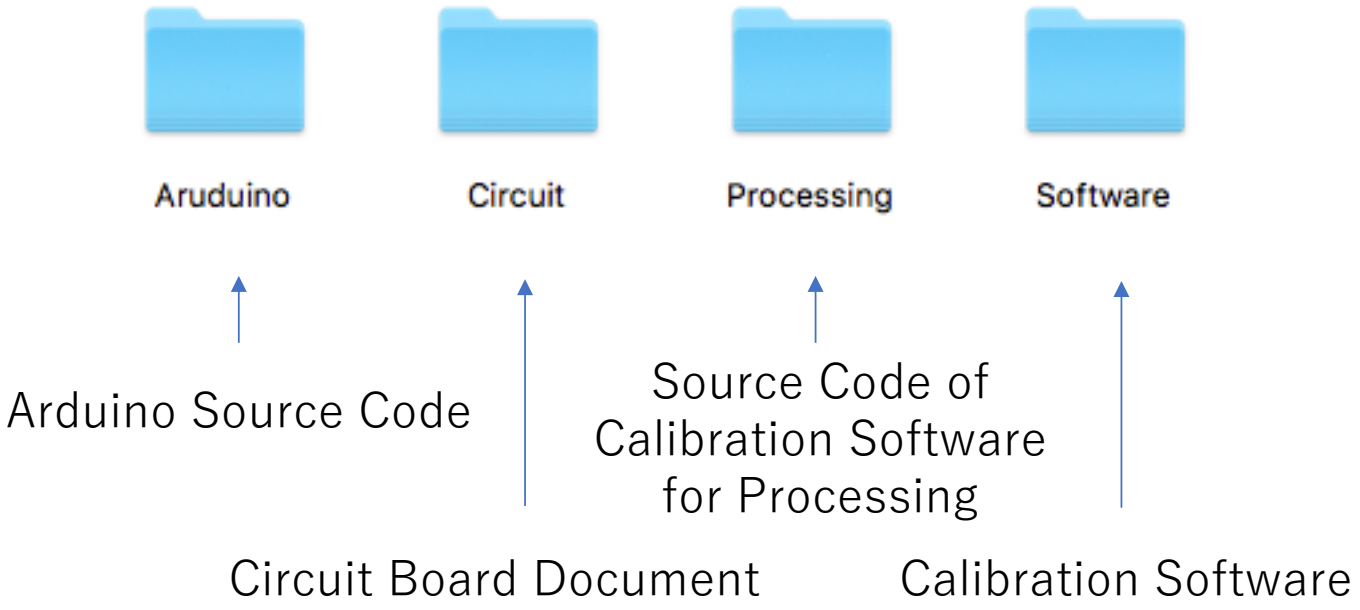


Completed to solder parts.

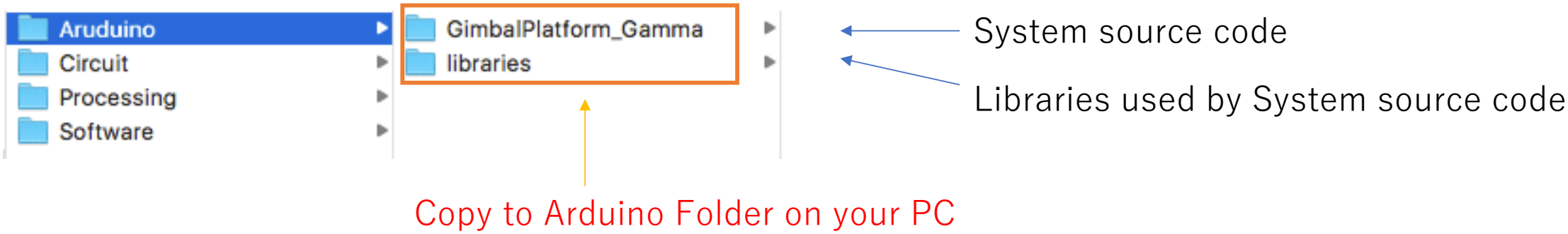


How to install program to Arduino

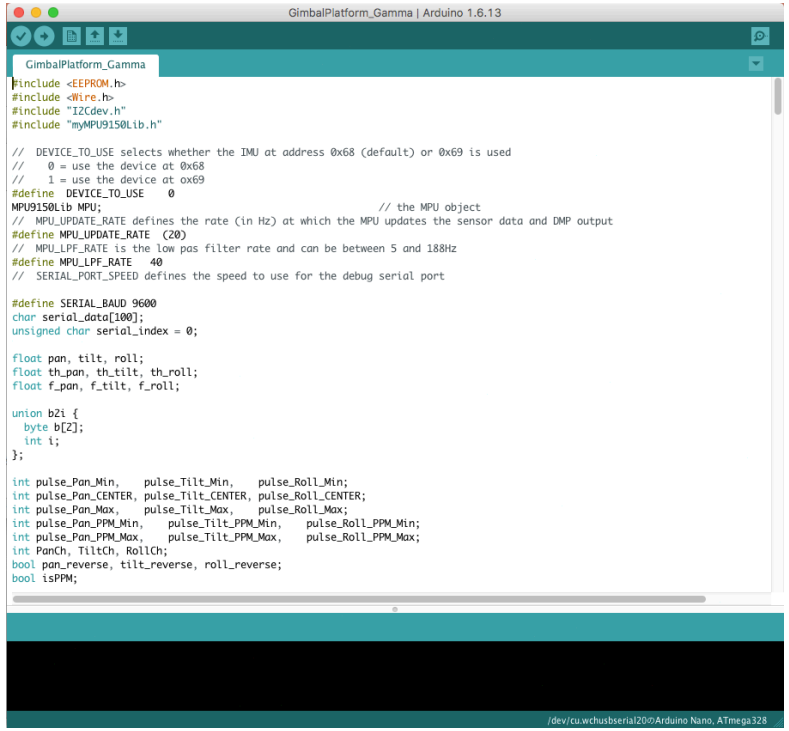
Downloaded Folder consists of following.



Copy to Arduino Project Folder

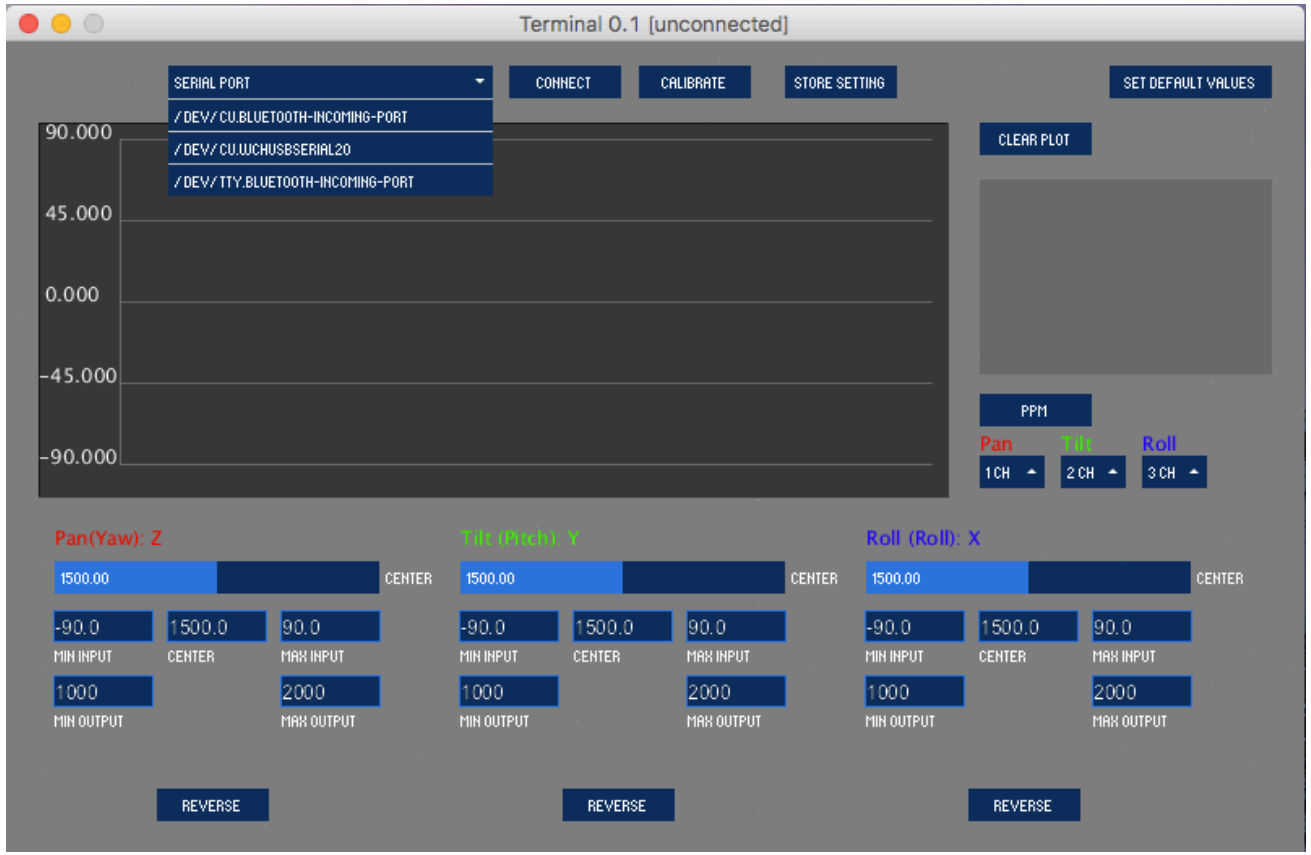


Open GimbalPlatform_Gamma.ino by ArduinoIDE, and Burn into your Arduino

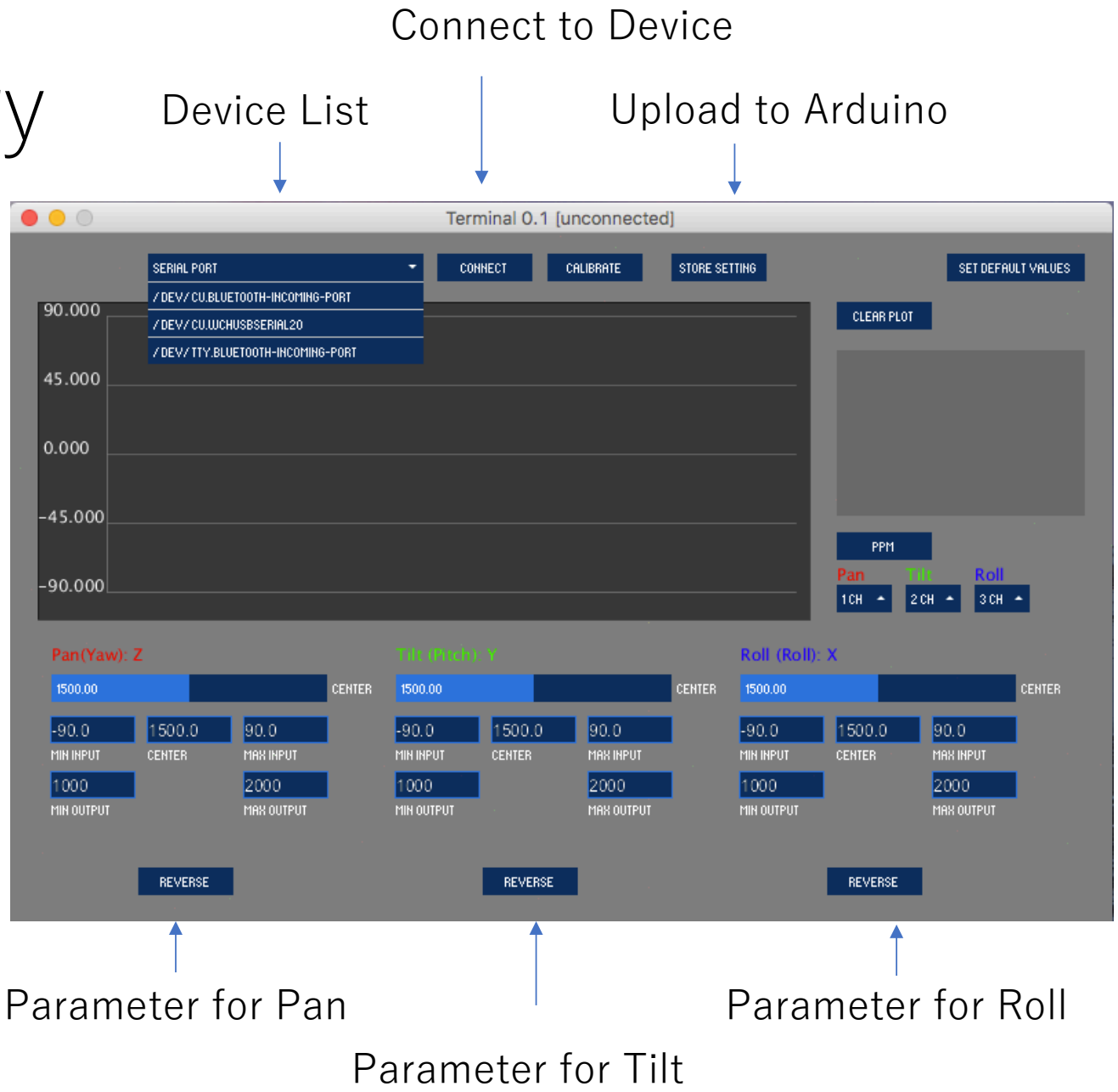


How to change parameters

Calibration Software



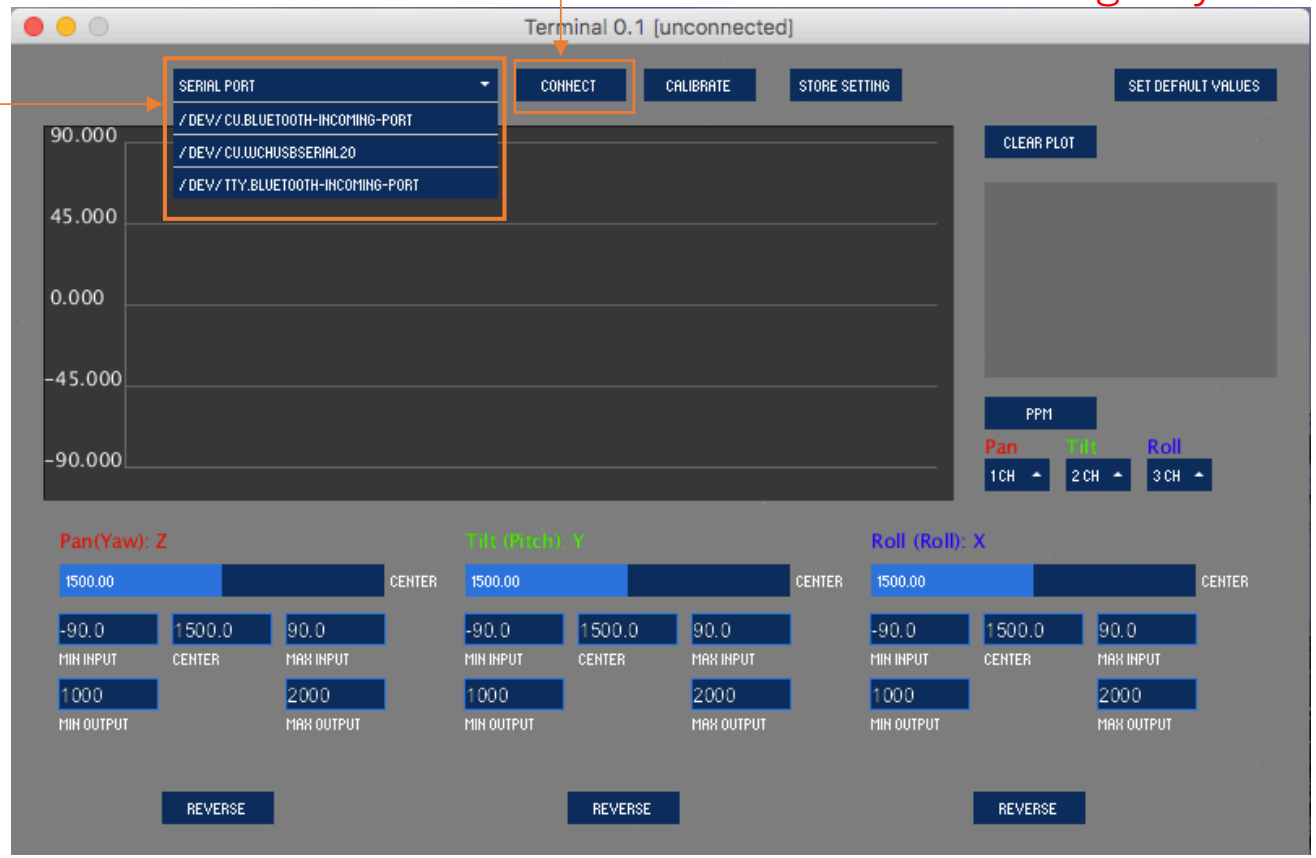
Summary


Connect to Device
Device List
Upload to Arduino
Terminal 0.1 [unconnected]
SERIAL PORT
CONNECT
CALIBRATE
STORE SETTING
SET DEFAULT VALUES
/DEV/CU.BLUETOOTH-INCOMING-PORT
/DEV/CU.WCHUSBSERIAL20
/DEV/TTY.BLUETOOTH-INCOMING-PORT
90.000
45.000
0.000
-45.000
-90.000
CLEAR PLOT
PPM
Pan
Tilt
Roll
1 CH
2 CH
3 CH
Pan(Yaw): Z
Tilt (Pitch): Y
Roll (Roll): X
1500.00
CENTER
-90.0
1500.0
90.0
MIN INPUT
CENTER
MAX INPUT
1000
2000
MIN OUTPUT
MAX OUTPUT
REVERSE
Set Default
Console
Tuning of
Output type:
1) PPM or PWM
2) PPM channel
Viewer for
Sensor data
Parameter for Pan
Parameter for Tilt
Parameter for Roll

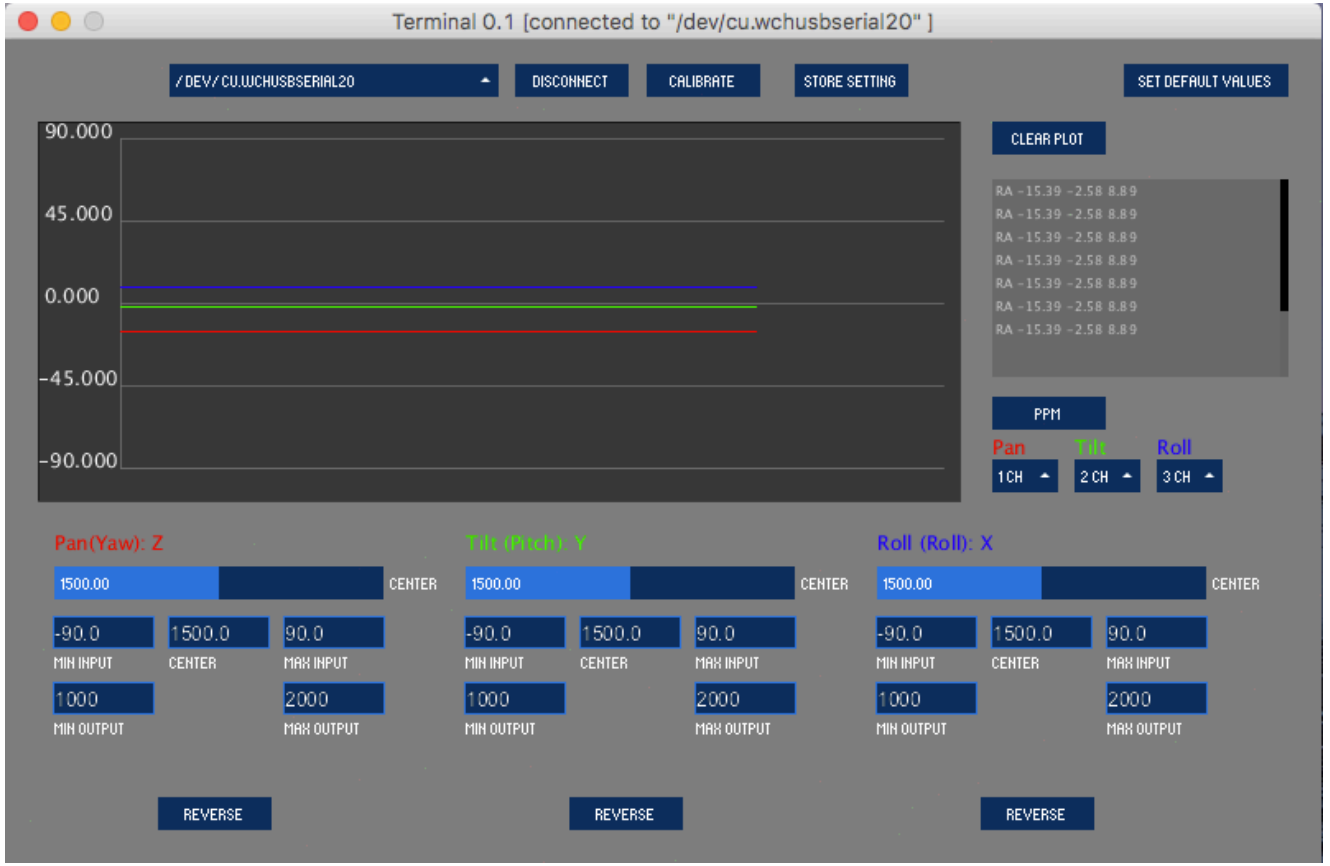
Connect to your Arduino

2) Click “Connect” button. Once click this button, this button change to “Disconnect” button for disconnecting to your Arduino

1) Select Serial Port of your Arduino in Device List

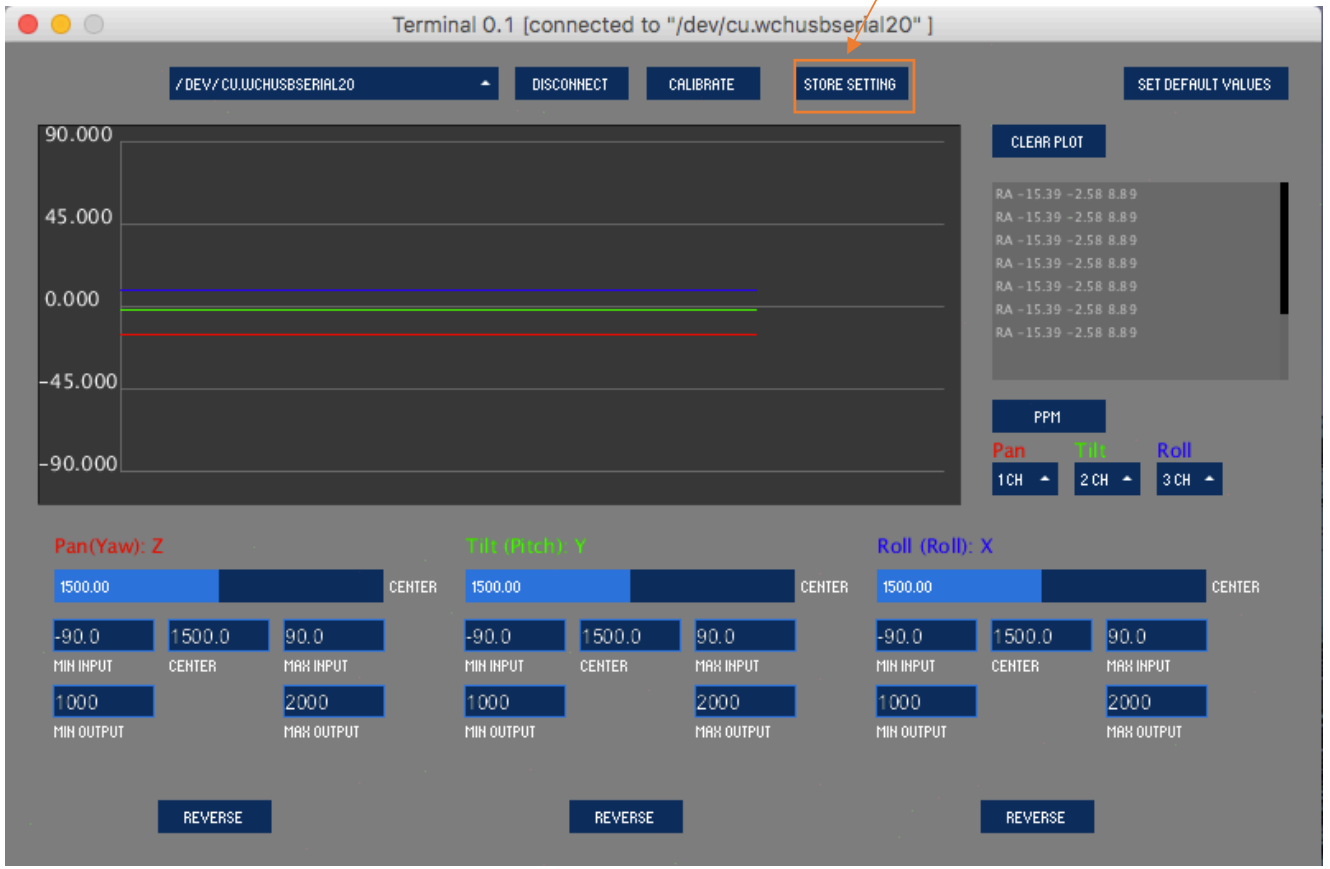


When success to connect to Arduino, Graph automatically starts to show sensor data

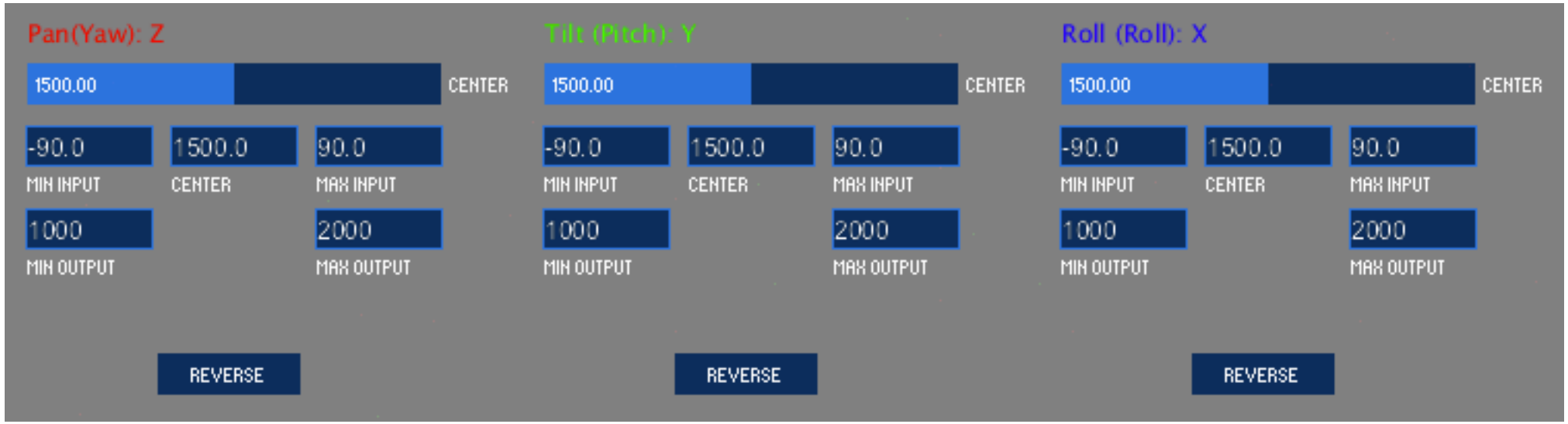


Update parameter to Arduino

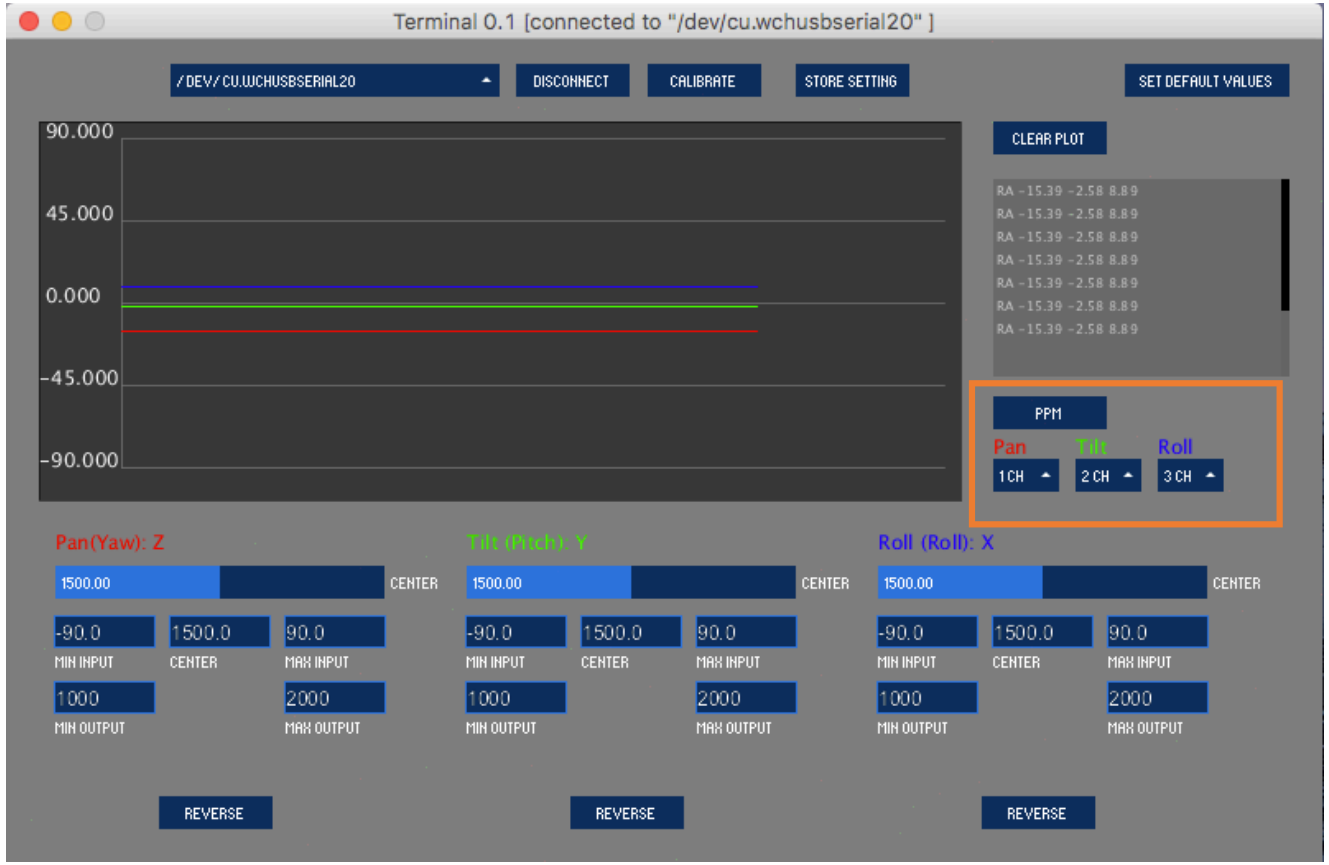
Click ”STORE SETTING” button.
Parameter in Arduino is not changed without pushing this button.



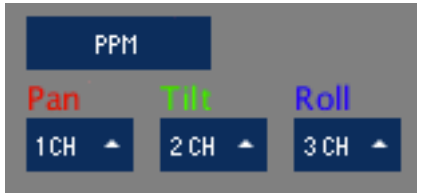
Can change parameters of each parameter. (Parameters reflect after clicking “STORE SETTING”)



Changing Default Output Way



PPM mode



Bottom channels
are for setting output channel of each axis.

Click PPM button

or

Click PWM button

PWM mode

Bottom channel
is not affected, because PWM out pin is fixed.

When system wakes up, system output signals by selected mode.
By keeping to press reset switch when system wakes up, you can use another mode temporarily.