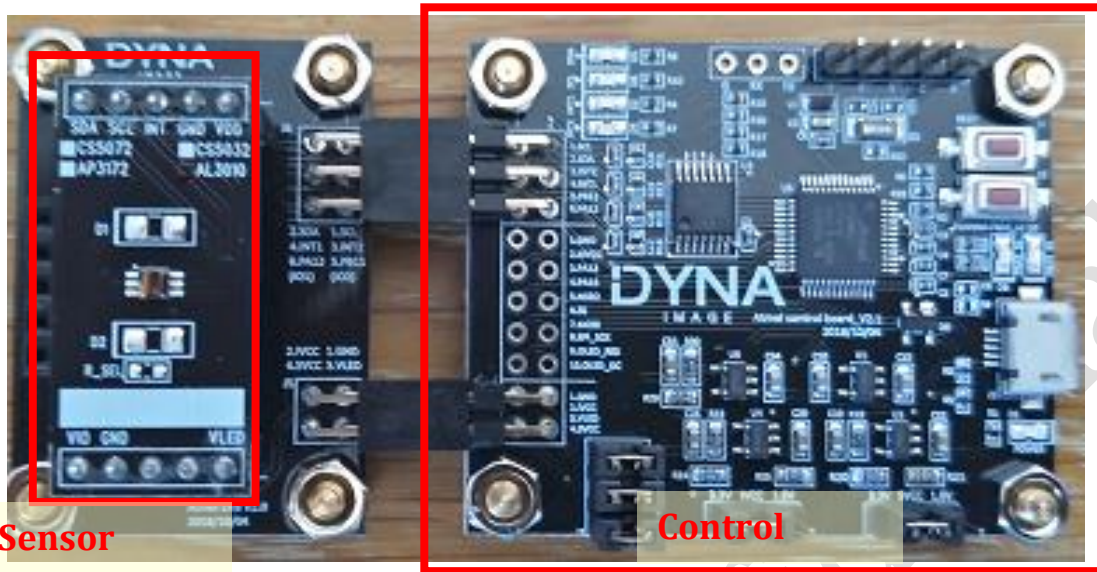


# AL3010

## Demo Program User Guide

VERSION	DATE	CONTENT	AUTHOR
1.0	2021/10/19	Document creation	Brian Chiu

## Hardware Setup

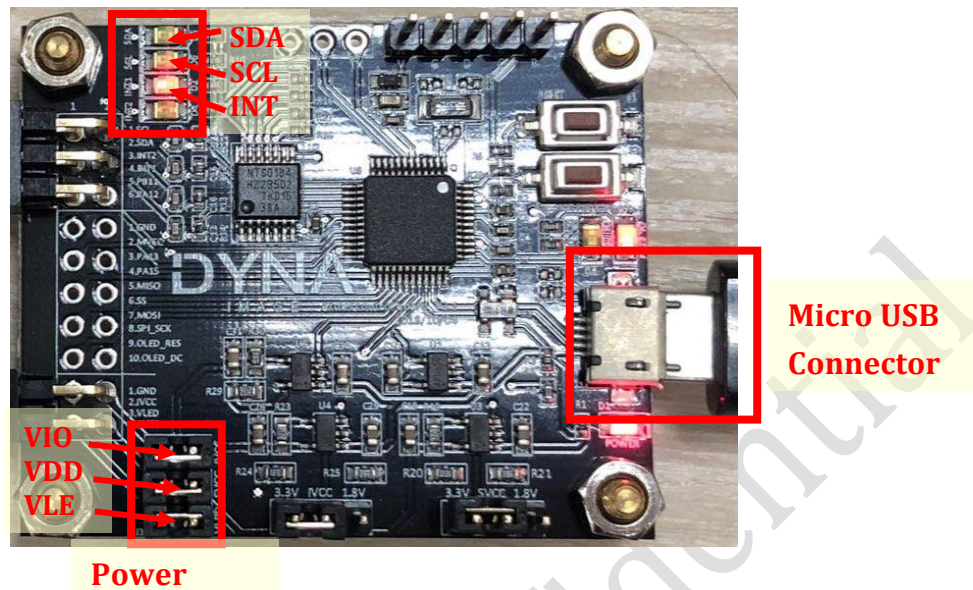


Sensor Board

SDA SCL INT GND VDD



## Control Board

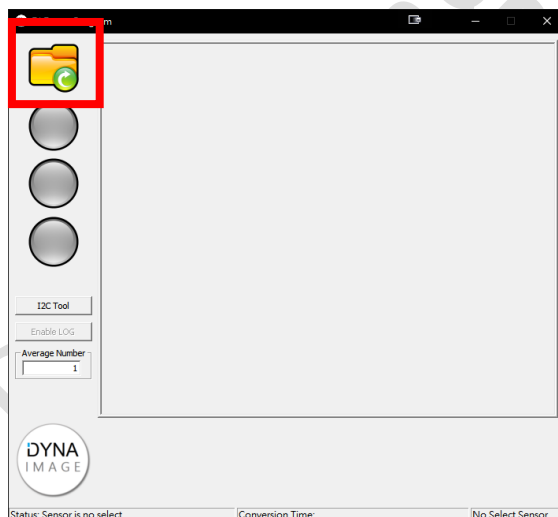


## Software Setup

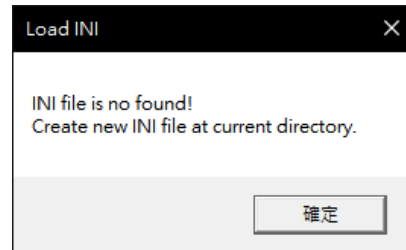
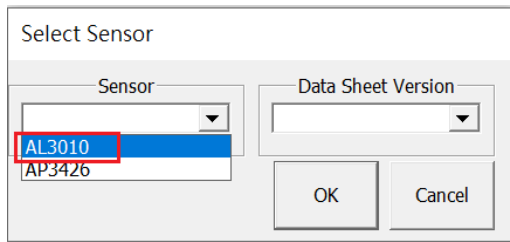
1. Open DI\_Demo\_Program.exe



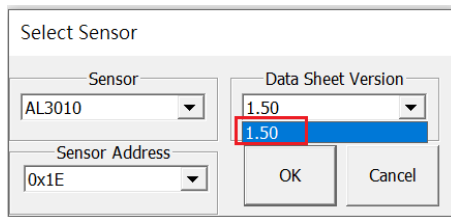
2. Open sensor selects windows



3. Select AL3010, then press OK. If it's your first use, you will get a "Load INI" message and then press OK.



4. After first use, select Data Sheet Version-1.5.0 when you load AL3010\_v1.50.ini file



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The user interface of Sys Config Tab is shown as follow:

The screenshot shows the 'Sys Config + ALS' window of the 'DI Demo Program'. The interface includes a left sidebar with a 'Lux' sensor selection and a 'Data' tab. The main area contains configuration options for the sensor, system mode, and thresholds. A 'Register Table' is visible on the right. Annotations with red arrows point to specific UI elements:

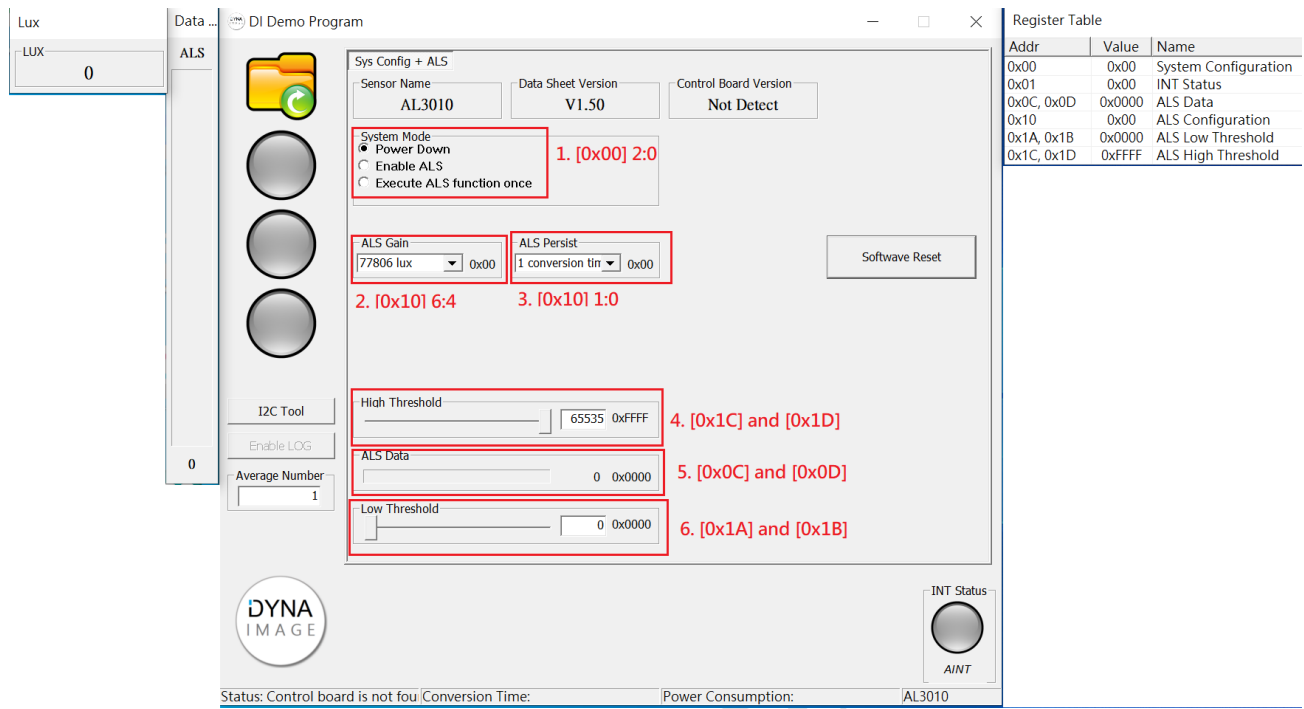
- Select Sensor:** Points to the 'LUX' sensor selection in the sidebar.
- Save setting to .ini file:** Points to the 'Save' button (floppy disk icon) in the top right of the main area.
- Pause:** Points to the 'Pause' button (circular icon) in the top right of the main area.
- Reload default value:** Points to the 'Reset' button (circular icon) in the top right of the main area.
- I2C Tool:** Points to the 'I2C Tool' button in the bottom left of the main area.
- Log Data:** Points to the 'Enable LOG' checkbox in the bottom left of the main area.
- Change Average Number:** Points to the 'Average Number' input field in the bottom left of the main area.

The 'Register Table' on the right contains the following data:

Addr	Value	Name
0x00	0x00	System Configuration
0x01	0x00	INT Status
0x0C, 0x0D	0x0000	ALS Data
0x10	0x00	ALS Configuration
0x1A, 0x1B	0x0000	ALS Low Threshold
0x1C, 0x1D	0xFFFF	ALS High Threshold

The status bar at the bottom indicates: Status: Control board is not fou / Conversion Time: / Power Consumption: / AL3010

The user interface of Sys Config+ALS Tab is shown as follow:



1. System Mode: User can select the three kinds of mode as Power Down, Enable ALS and Execute ALS function once from Register 0x00.
2. ALS Gain: User can set ALS Gain value from the Bit 6:4 of Register 0x10.
3. ALS Persist: User can set its conversion time from the Bit 1:0 of Register 0x10.
4. ALS High Threshold: Set the interrupt of Threshold when ALS Data value is higher than Threshold from Register 0x1C and 0x1D.
5. ALS Data: Display the actual ADC value from Register 0x0C and 0x0D.
6. ALS Low Threshold: Set the interrupt of Threshold when ALS Data value is lower than Threshold from Register 0x1A and 0x1B.

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