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Halo Touchless Car Operating System

Programming guide

The following guidance is to aid you in setting up and programming the Halo Touchless Car Operating System. For sensor location and attachment information, please refer to the Installation guide.

Creating a new configuration

Open the file: Config.xls (screen shot below) and input your button coordinates.

	A	B	C	D	E
1	Project description:	Test project			
2	Maximum touch size (mm):	15			
3	Sensor layout:	0			
4	Index	X-position	Y-position	Width	Height
5	1	50	65	35	35
6	2	135	65	35	35
7	3	50	123	35	35
8	4	135	123	35	35
9	5	50	178	35	35
10	6	135	178	35	35
11	7	50	233	35	35
12	8	135	233	35	35
13	9	92	290	35	35
14					

290mm
233mm
178mm
123mm
65mm

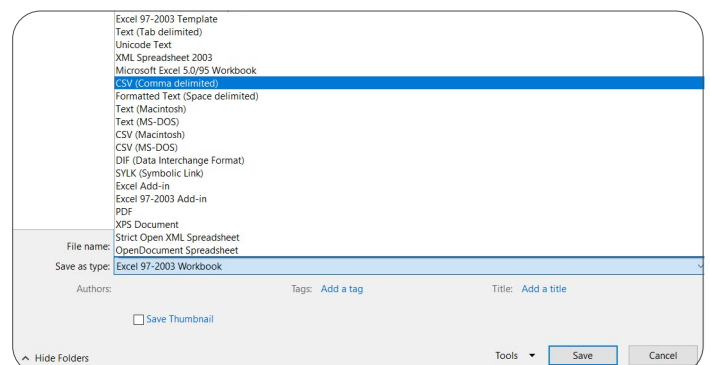X axis
Y axis

50mm   92mm   135mm
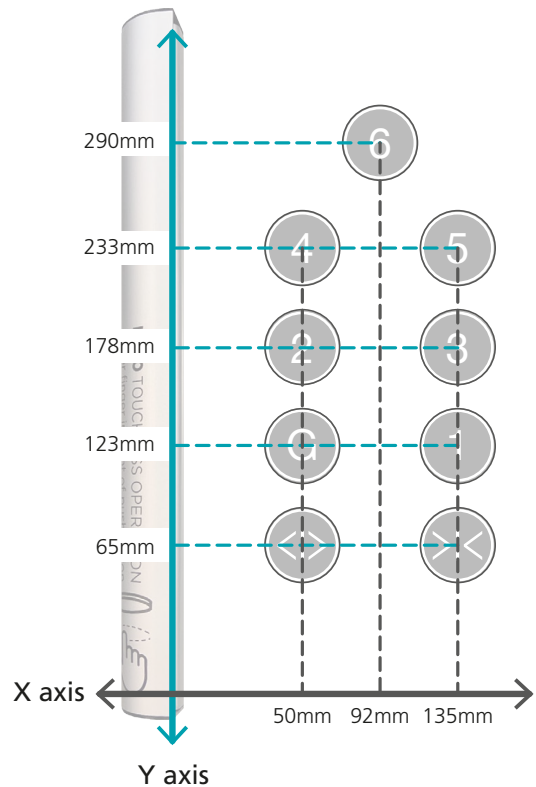
Note: please input all measurements in mm.

The index numbers refer to the 8 way call module and the floors you are able to program. The maximum number of floors supported is 64, meaning up to 8 boards can be connected together. To program additional floors, simply continue the sequence of index numbering.

To find the X and Y position values, take measurements from both axes to the centre of each pushbutton, as shown in the diagram (top right). The width and height columns refer to the size of your pushbuttons.

After uploading the new coordinates, select **'Save as'** and save this configuration as a CSV file (comma delimited/ separated value), as shown in the screenshot (bottom right).

DO NOT change the file name.

Excel 97-2003 Template
Text (Tab delimited)
Unicode Text
XML Spreadsheet 2003
Microsoft Excel 5.0/95 Workbook
CSV (Comma delimited)
Formatted Text (Space delimited)
Text (Macintosh)
Text (MS-DOS)
CSV (Macintosh)
CSV (MS-DOS)
DIF (Data Interchange Format)
SYLK (Symbolic Link)
Excel Add-in
Excel 97-2003 Add-in
PDF
XPS Document
Strict Open XML Spreadsheet
OpenDocument Spreadsheet

File name:
Save as type: Excel 97-2003 Workbook

Authors: Tags: Add a tag   Title: Add a title

Save Thumbnail

Hide Folders   Tools   Save   Cancel

Set up for programming

Connect the USB programming cable to the CPU board, and then connect the USB to your PC/laptop.

Halo USB programming cable 520902-870475

CPU board

A red LED will illuminate on the USB to indicate a successful connection. Once connected, you will need to download the software below to program your Halo sensor.
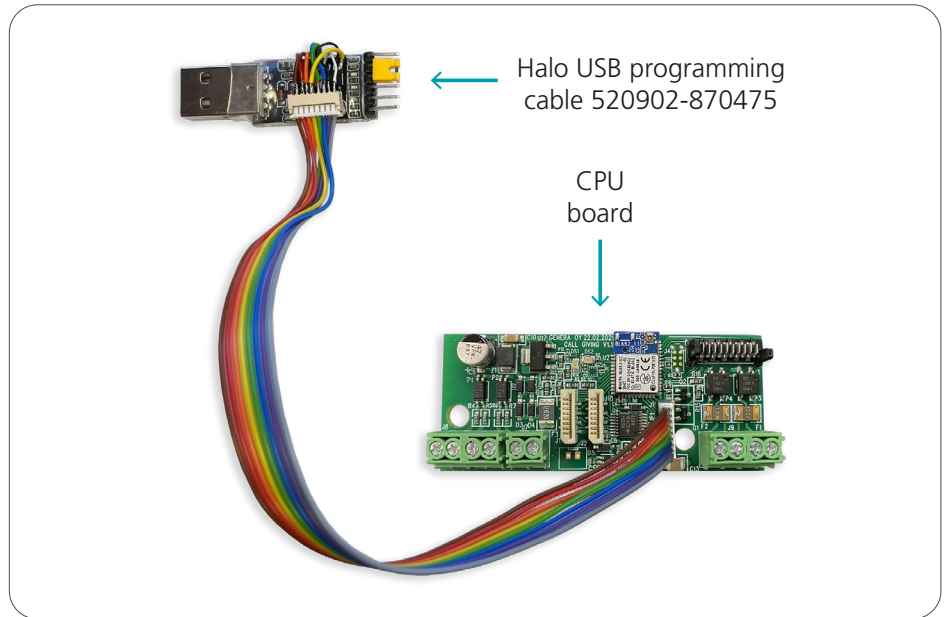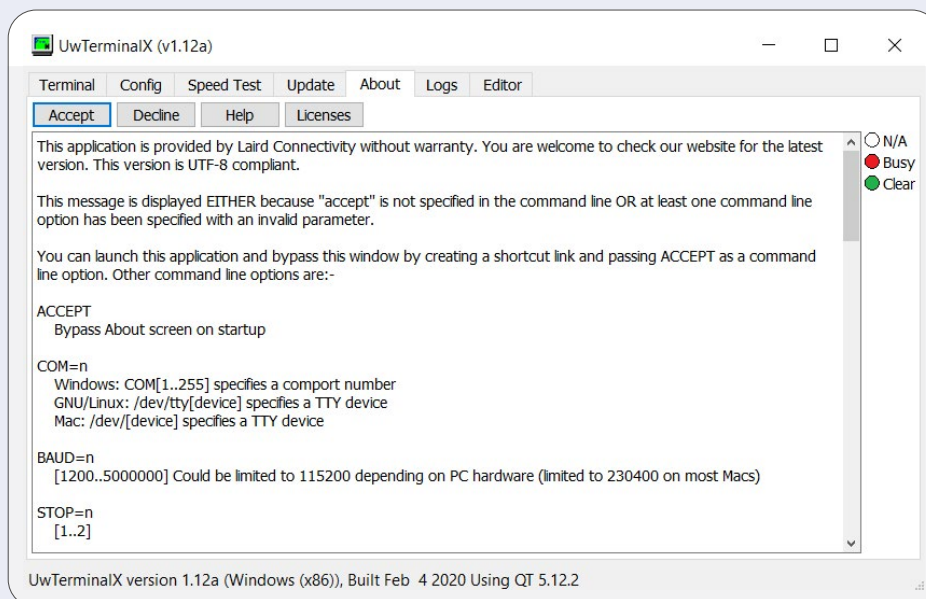
Halo programming

The software used to program the main board is **UwTerminalX** and can be found at: https://github.com/LairdCP/UwTerminalX/releases

Below is a step-by-step guide to programming the Halo sensor using UwTerminalX.

1   Open UwTerminalX

Hit '**Accept**' when greeted with the message below.

UwTerminalX (v1.12a)   — ☐ ✕

Terminal | Config | Speed Test | Update | About | Logs | Editor

Accept | Decline | Help | Licenses   ○ N/A
                                                       ● Busy
This application is provided by Laird Connectivity without warranty. You are welcome to check our website for the latest   ● Clear
version. This version is UTF-8 compliant.

This message is displayed EITHER because "accept" is not specified in the command line OR at least one command line
option has been specified with an invalid parameter.

You can launch this application and bypass this window by creating a shortcut link and passing ACCEPT as a command
line option. Other command line options are:-

ACCEPT
    Bypass About screen on startup

COM=n
    Windows: COM[1..255] specifies a comport number
    GNU/Linux: /dev/tty[device] specifies a TTY device
    Mac: /dev/[device] specifies a TTY device

BAUD=n
    [1200..5000000] Could be limited to 115200 depending on PC hardware (limited to 230400 on most Macs)

STOP=n
    [1..2]

UwTerminalX version 1.12a (Windows (x86)), Built Feb 4 2020 Using QT 5.12.2

② Select the correct port settings

Make sure you have selected the port that your PC has assigned for the USB serial programming tool (you will see USB-SERIAL CH340). Hit 'Ok' to confirm.
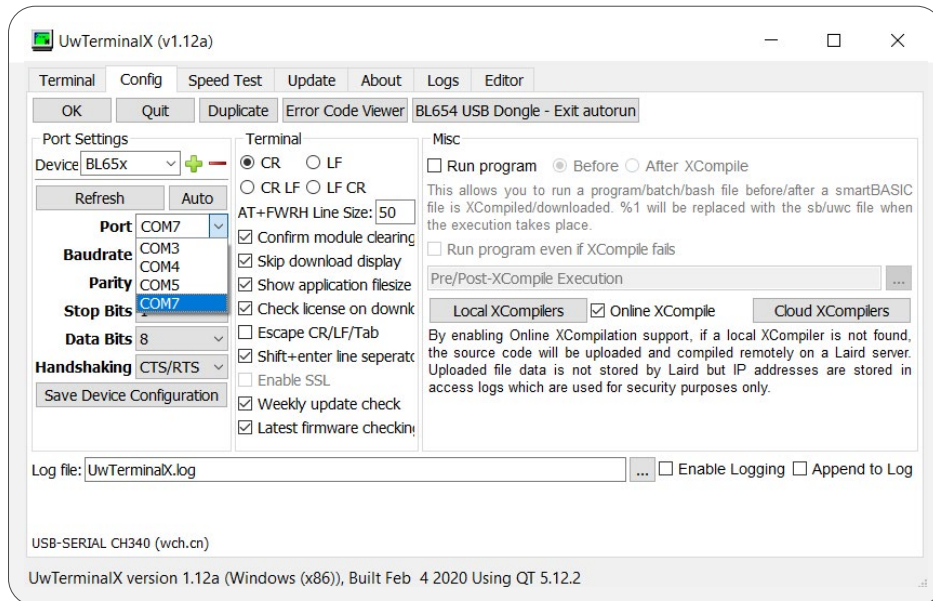
③ Enter the first command

Type the following command line: **at+dir**

Hit **enter**. This will tell you the current status on the CPU board and what is programmed as default. There is an autorun file that is installed and used for testing by default.
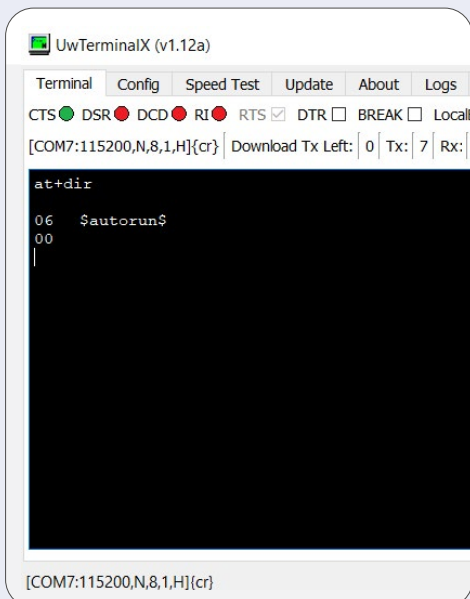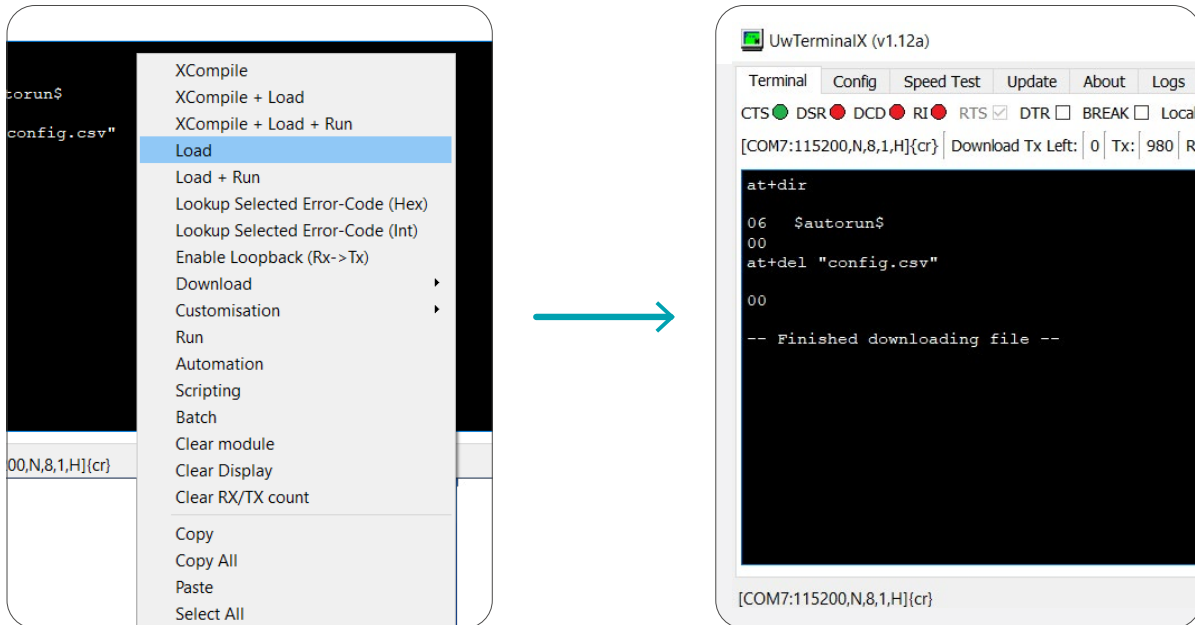

④ Prepare for new configuration

Type the following command line, making sure you include a space before the opening quotation marks: **at+del "config.csv"**

Hit **enter**. This will delete everything in its programming memory ready for uploading the new config.
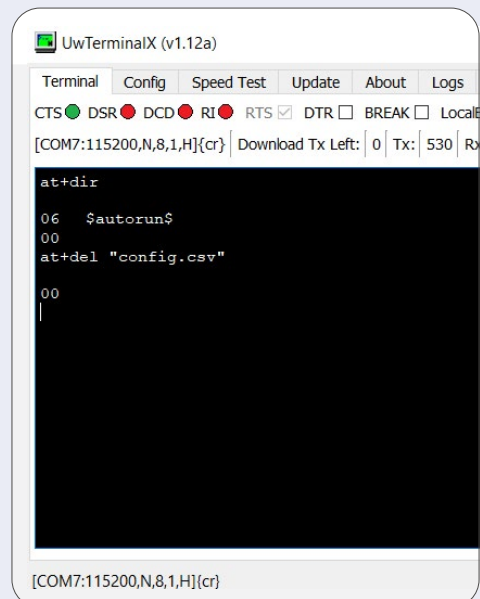
5 Upload new configuration to the CPU board

Right click with your mouse and select '**Load**'. Now select the new configuration file you previously created. After the new configuration has updated, your screen should display a message saying '**Finished downloading file**' as shown below.

6 Rename imported file

Type the following command line, making sure you include a space before both opening quotation marks: **at+ren "config" "config.csv"**
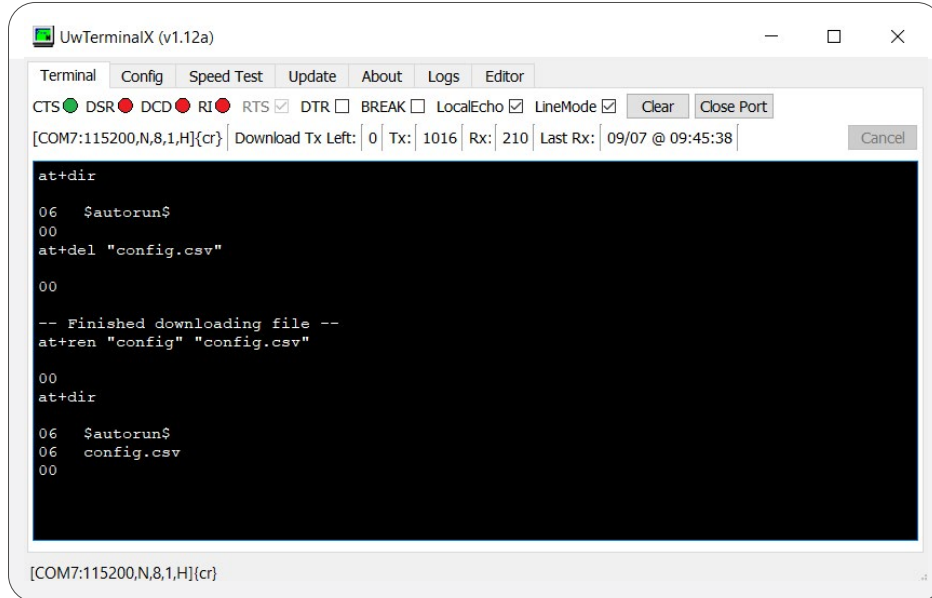
Hit **enter**. This will rename the imported file into the correct format that the software will recognise.
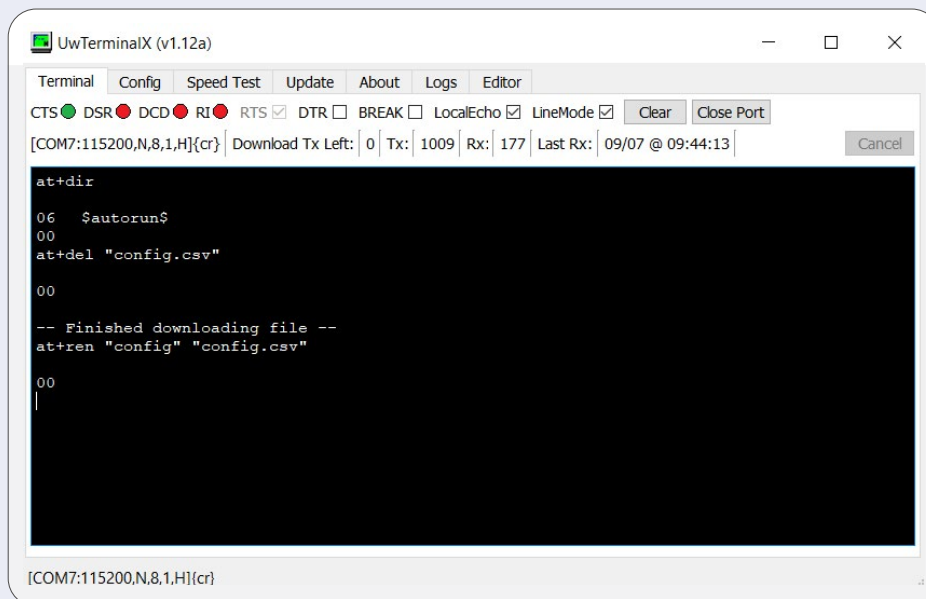
7 Check configuration

To check that the configuration has been successfully uploaded, repeat the first command: **at+dir**

Hit **enter**. This will tell you the current programming status on the CPU.

```
UwTerminalX (v1.12a)                                    —   □   ✕

Terminal │ Config │ Speed Test │ Update │ About │ Logs │ Editor
CTS ● DSR ● DCD ● RI ●  RTS ☑  DTR ☐  BREAK ☐  LocalEcho ☑  LineMode ☑   Clear   Close Port
[COM7:115200,N,8,1,H]{cr} │ Download Tx Left: 0 │ Tx: 1016 │ Rx: 210 │ Last Rx: 09/07 @ 09:45:38          Cancel

at+dir

06    $autorun$
00
at+del "config.csv"

00

-- Finished downloading file --
at+ren "config" "config.csv"

00
at+dir

06    $autorun$
06    config.csv
00


[COM7:115200,N,8,1,H]{cr}
```

As shown above, the config.csv has been successfully uploaded and the programming is now complete.

Remove USB programming cable from PC/laptop first and then carefully remove from the CPU board.