

Halo Touchless Car Operating System

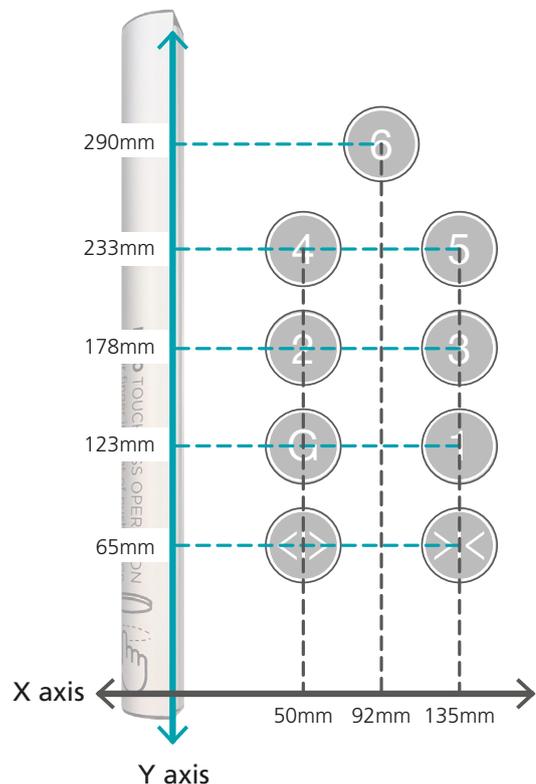
Programming guide

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					



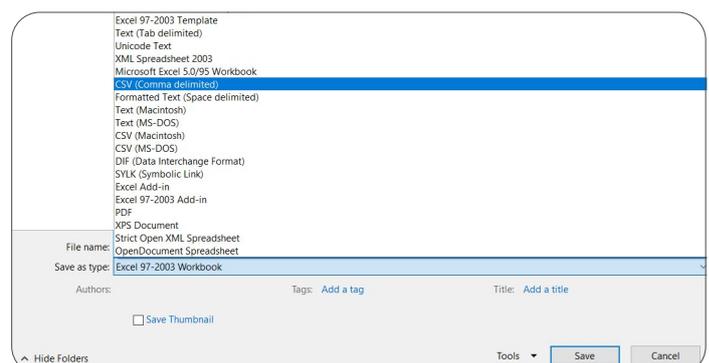
Note: please input all measurements in mm.

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).

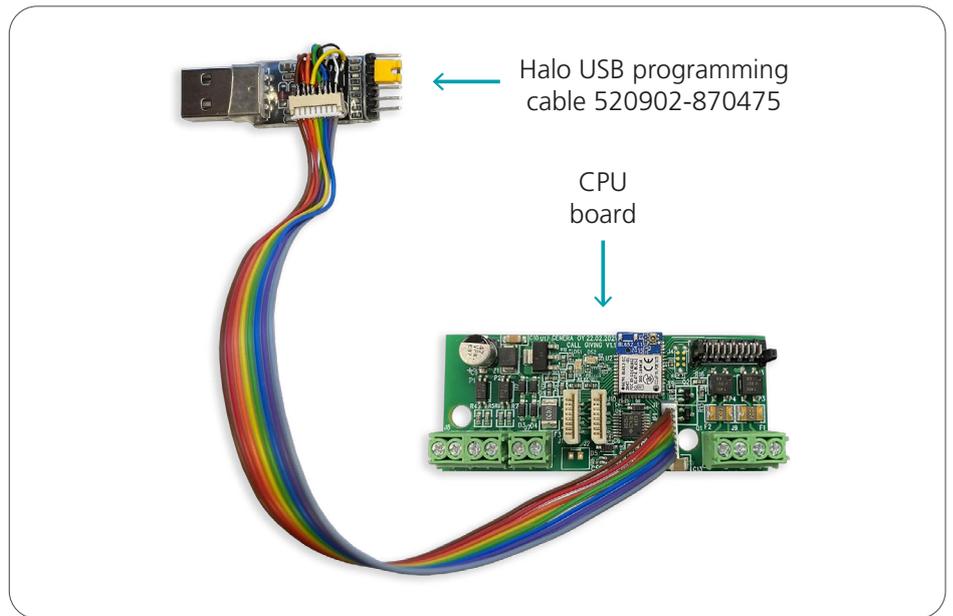
DO NOT change the file name.



Set up for programming

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

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.



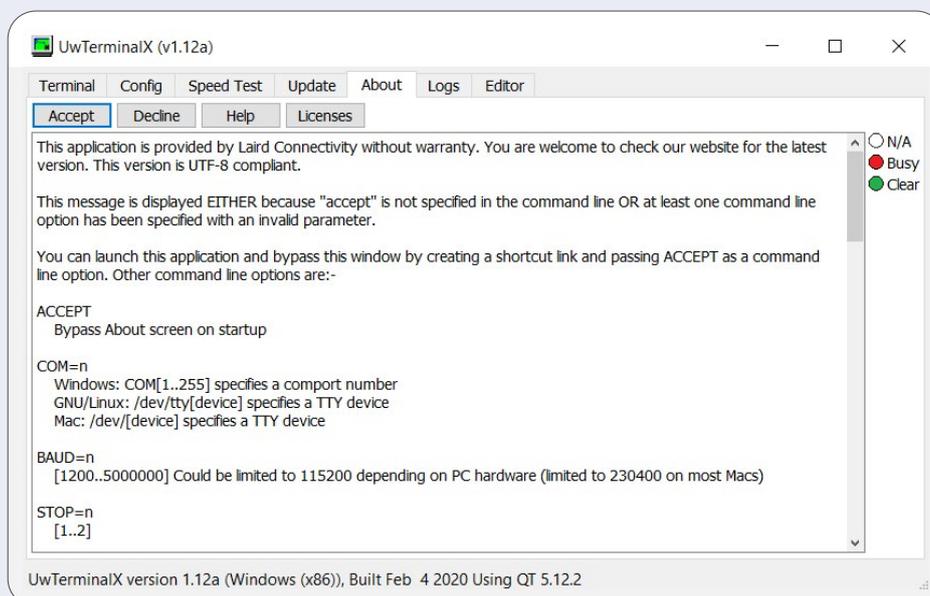
Halo programming

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.

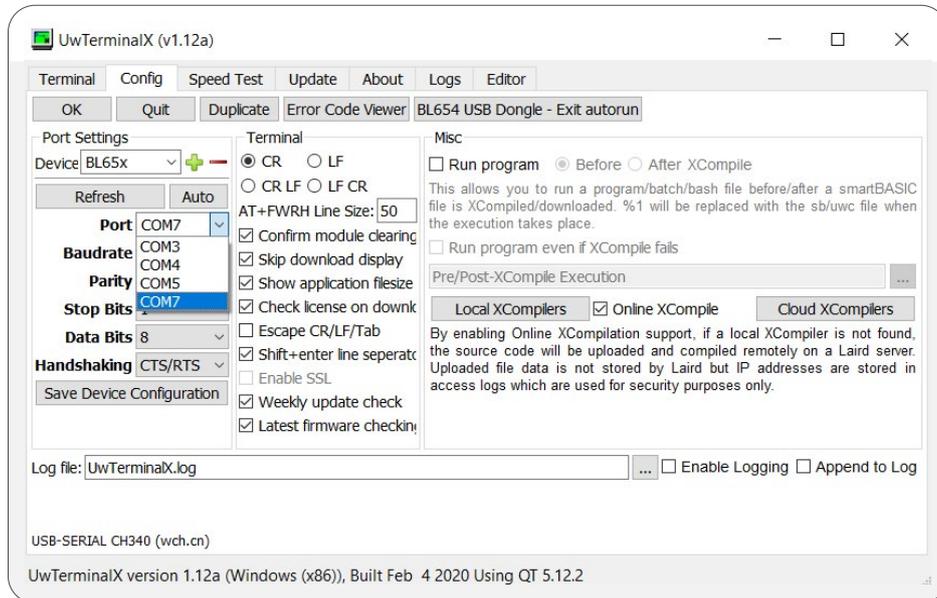
1 Open UwTerminalX

Hit 'Accept' when greeted with the message below.



2 Select the correct port settings

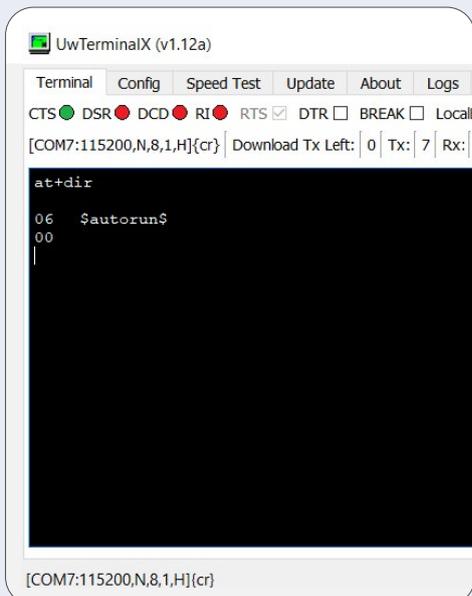
Make sure you have selected the port that your PC has assigned for the USB serial programming tool (you will see USB-SERIAL CH340). Hit 'OK' to confirm.



3 Enter the first command

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

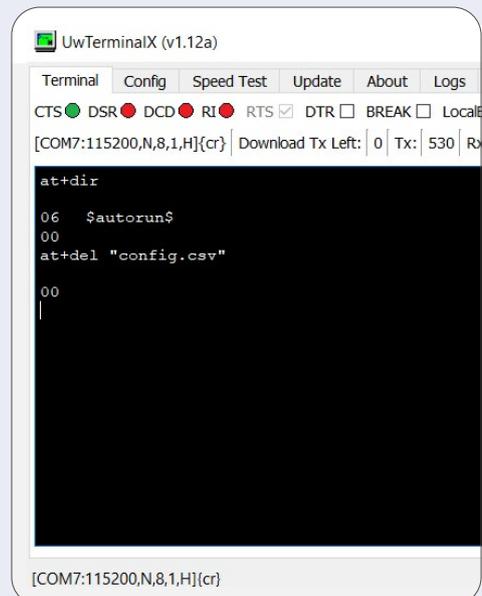
Hit **enter**. This will tell you the current status on the CPU board and what is programmed as default. There is an autorun file that is installed and used for testing by default.



4 Prepare for new configuration

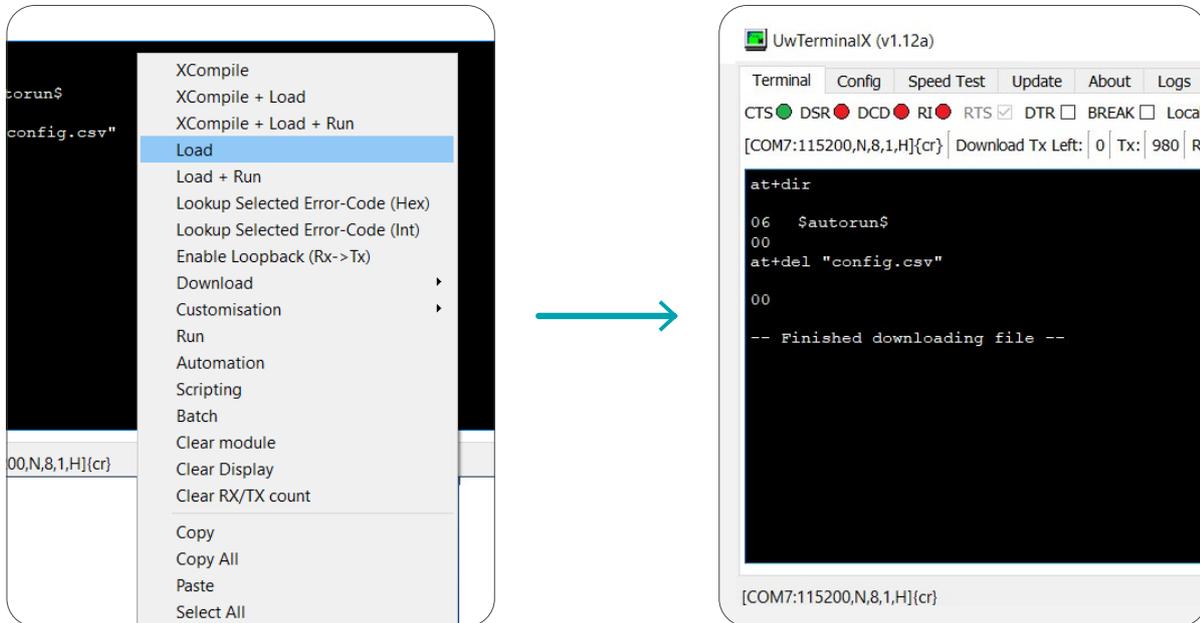
Type the following command line, making sure you include a space before the opening quotation marks: **at+del "config.csv"**

Hit **enter**. This will delete everything in its programming memory ready for uploading the new config.



5 Upload new configuration to the CPU board

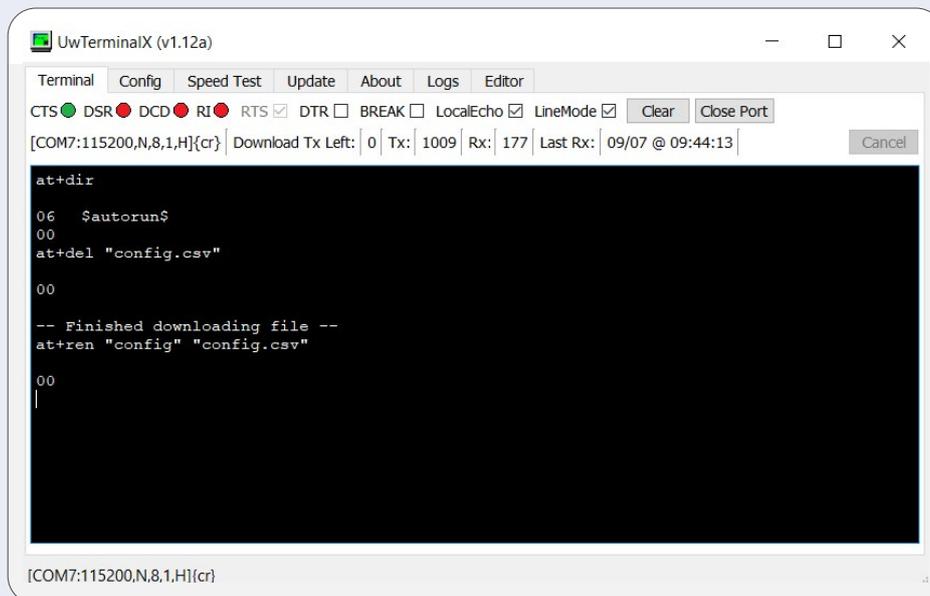
Right click with your mouse and select 'Load'. Now select the new configuration file you previously created. After the new configuration has updated, your screen should display a message saying 'Finished downloading file' as shown below.



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"`

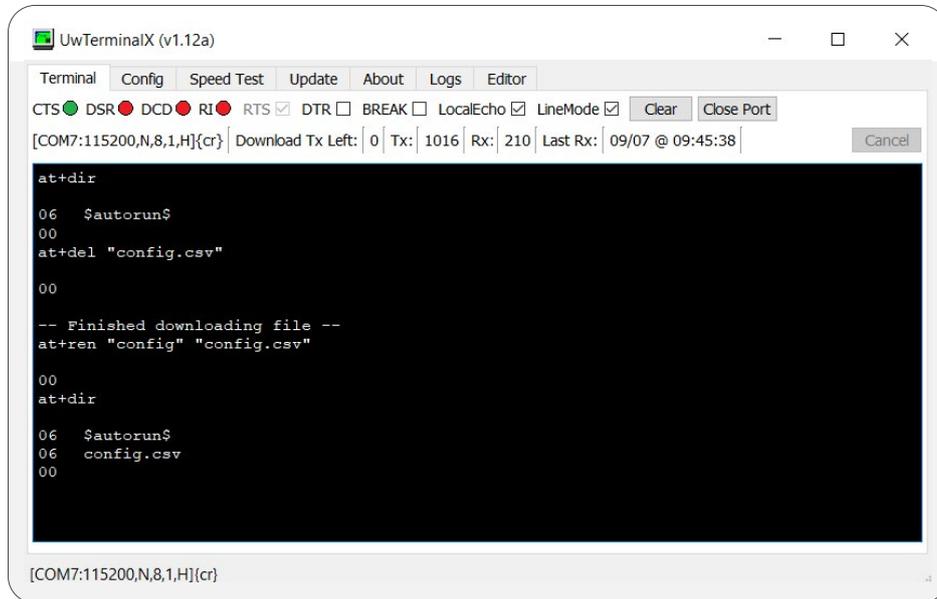
Hit **enter**. This will rename the imported file into the correct format that the software will recognise.



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  RT  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.