

Produced by DAISEN
Alpha-Xplorer
C-Style C-Code Operating Guide
Vol.170410

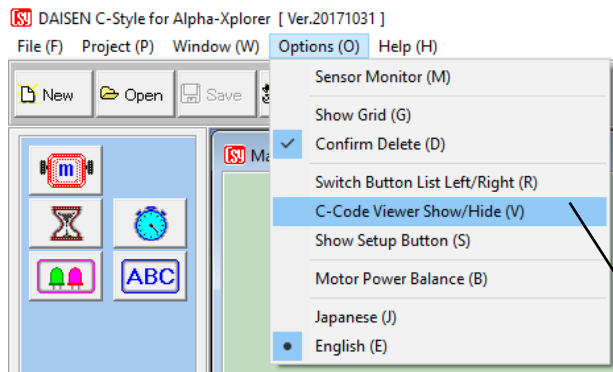
Table of Contents

C-Code Operating Guide

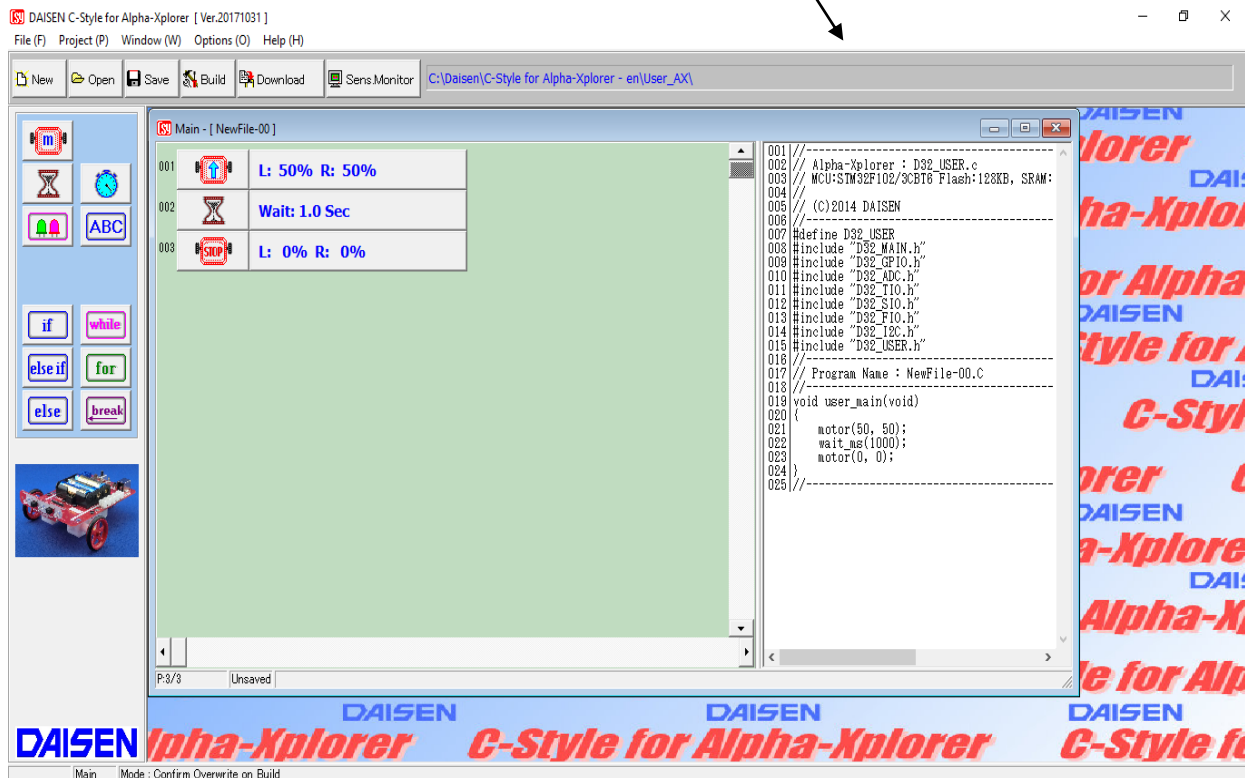
1. Show / Hide C-Code	2
2. Use the "C code" button	3
3. Build failures that happen with the "C code" button --	6
4. Direct edit by C-Code	7

1. Show / Hide C-Code

Show C-Code C-Style



C-Code viewer shows you how your C-Style program translates into C-Code on the right side in real time.




You cannot edit the C-Code from there. It is displayed for your learning, not for programming.

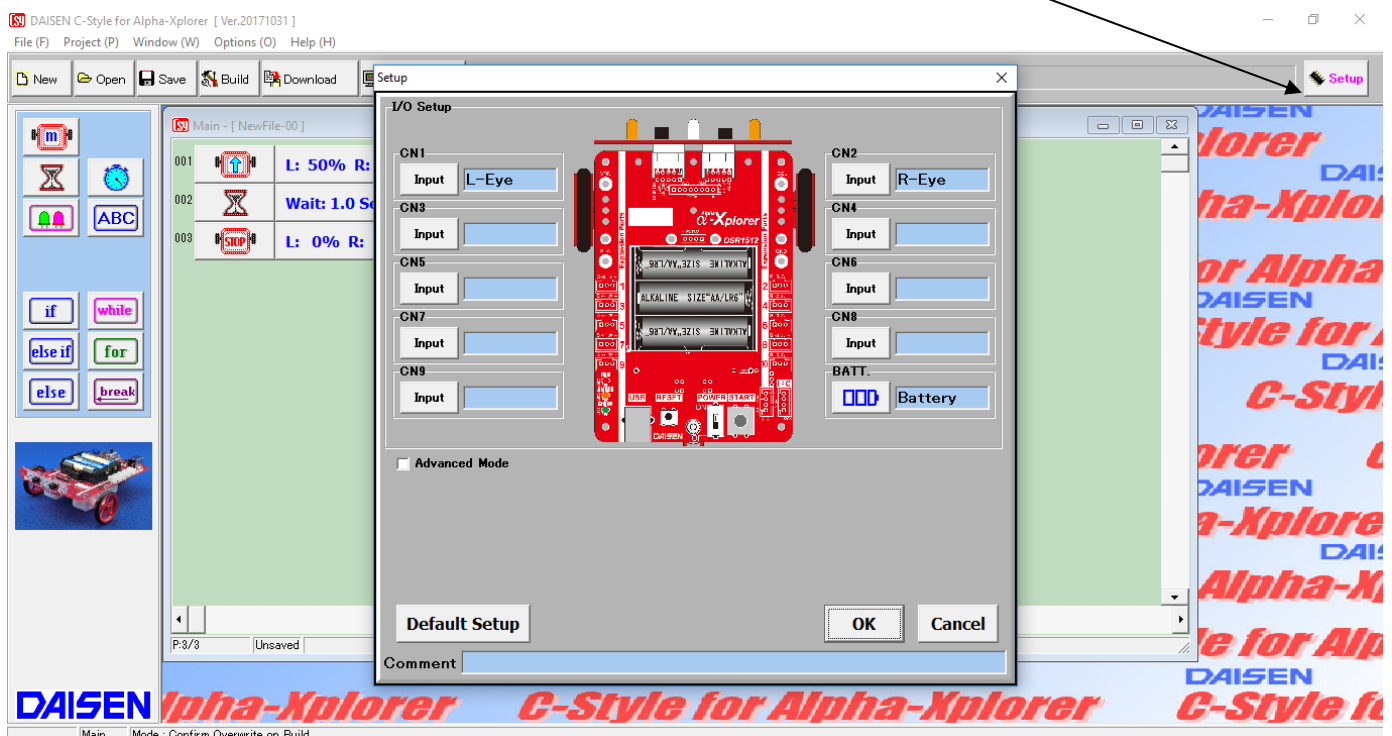
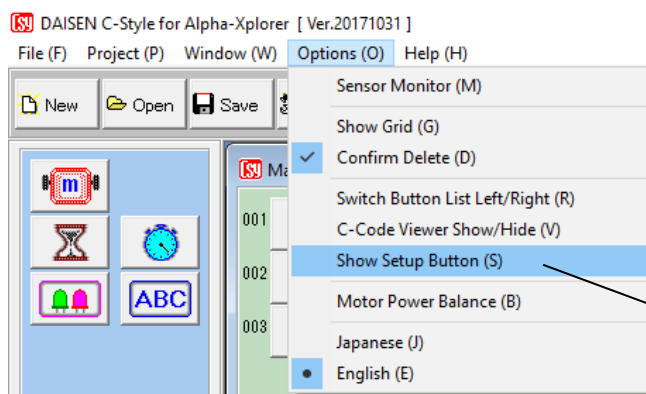
2. Use C-Code button

With the C-code button, you can insert basic C commands into your program.

When you build your program, the command written inside the C-Code button will be pasted into the C program. When you get used to C-Style, you start looking for a new challenge!

Use this button to add some commands in C, while still using C-Style to program everything else in your program.

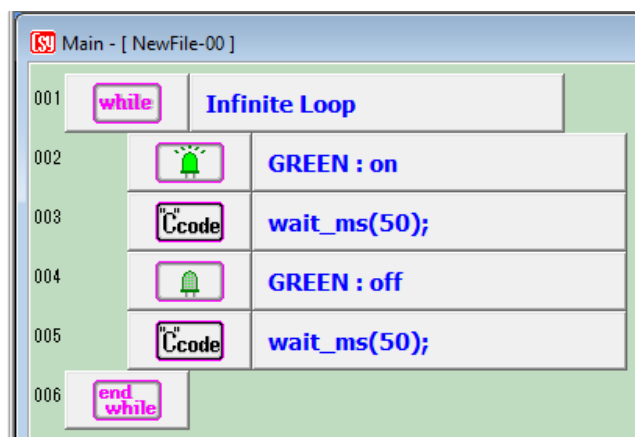
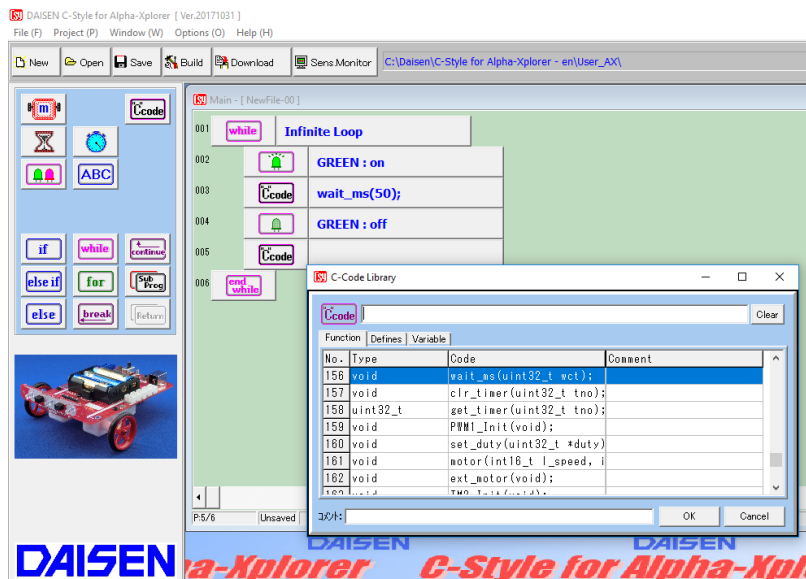
When you click "Show Setup Button" in the options menu, the setup button  will appear.



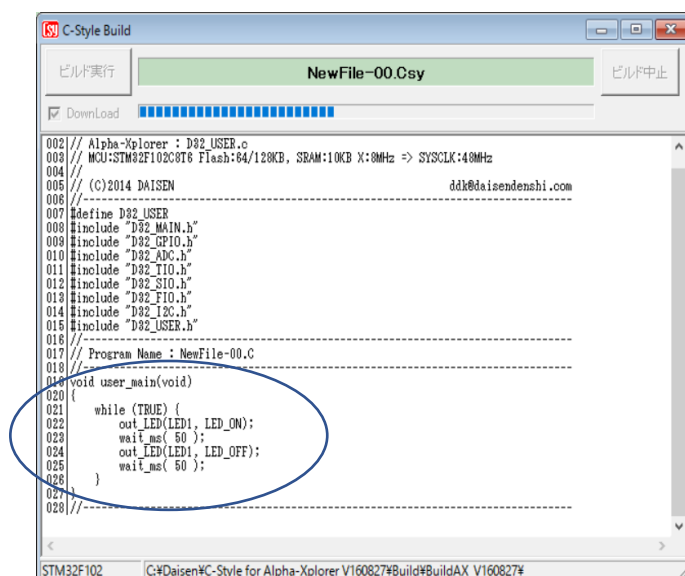
When you press the setup button, the I/O input output settings appears. Check the "Advanced Mode" checkbox, and then click the "OK" button. The advanced command buttons are now displayed in the command button list, including the C-Code button.

For example, the shortest amount of wait time button in C-Style is 0.1 seconds (100 milliseconds).

However, with the C-Code button, you can use the C command to wait for as little as 1 millisecond. The example below shows how to program the LED to flash every 50 milliseconds.

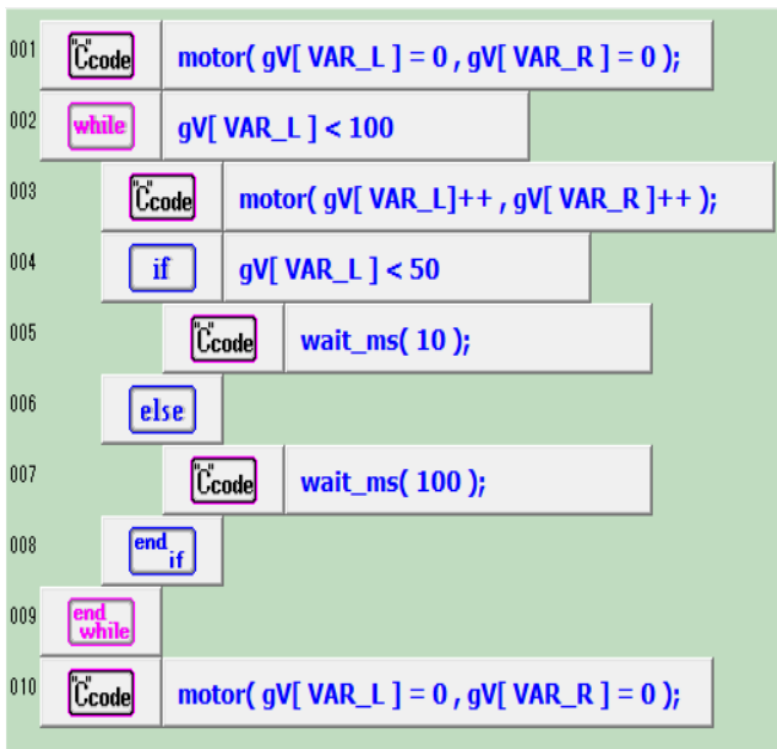
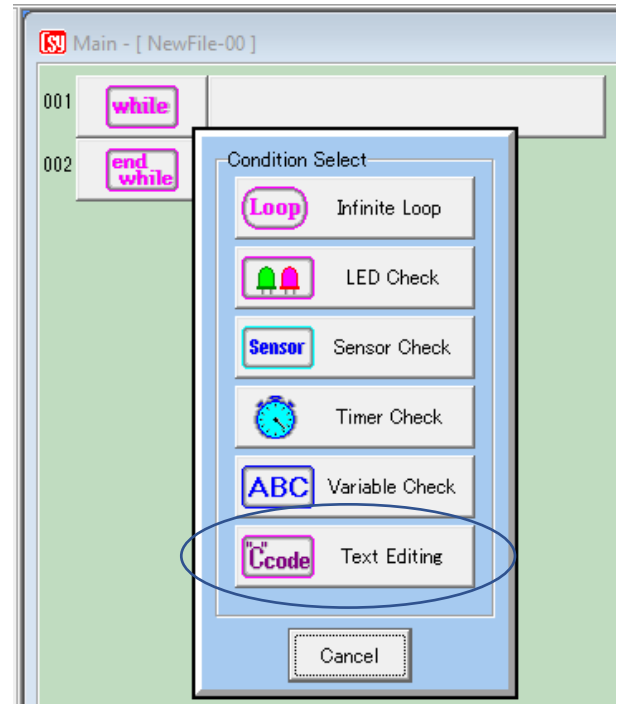
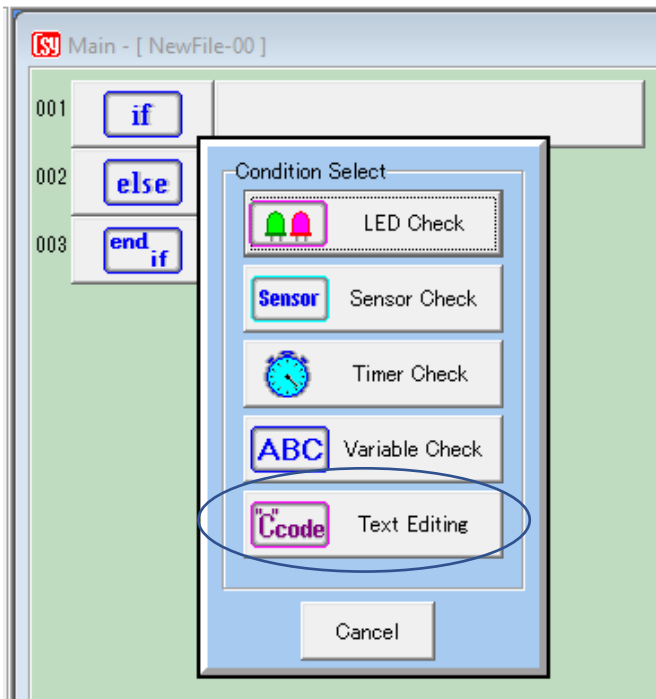


Green LED flashing each 50 milliseconds is possible with the use of the C-Code button.



When the program is built, you can see that the code in the C-Code button is directly written inside the compiled C-Code.

You can use C code to program “if” loops and “while” loops too.



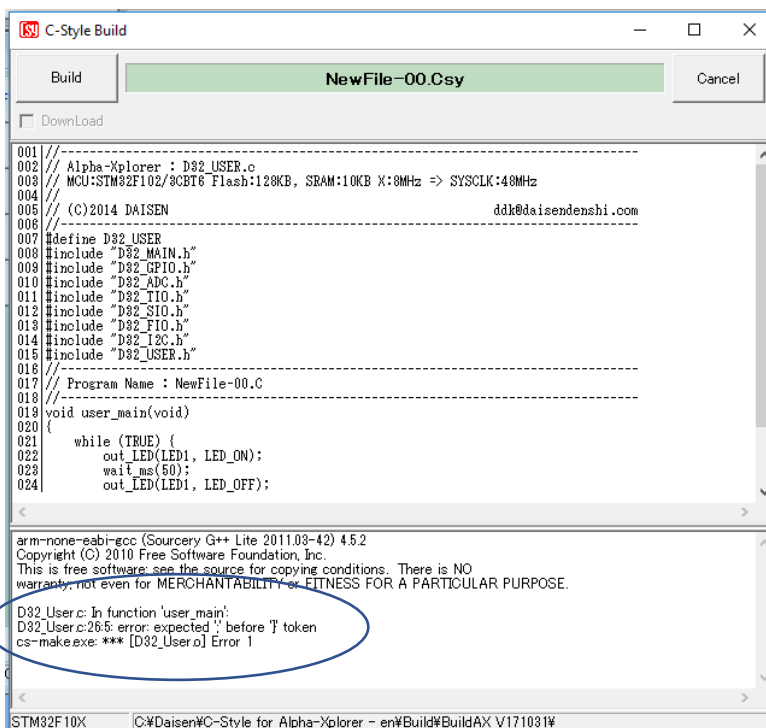
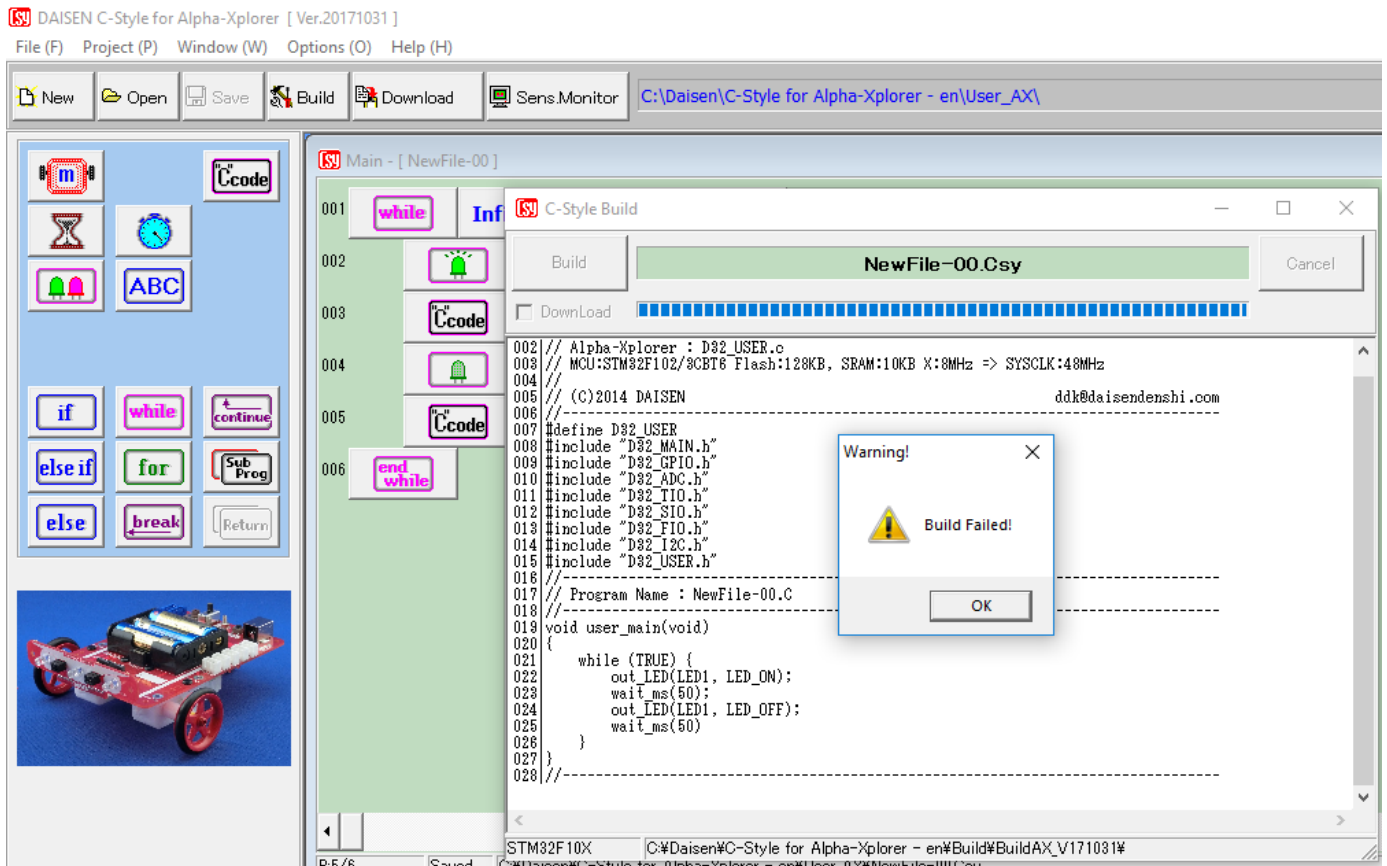
Example: A program that accelerates the motors using “while” and “if” statements.

- 001: Motor: STOP
- 002: Continue doing this until motors reach 100% power
- 003: Increase the right and left motor power by 1% each time
- 004: If the left motor power is less than 50%, then
- 005: wait 10 milliseconds
- 006: else (if the left motor power is 50% or more)
- 007: wait 100 milliseconds
- 010: Stop both motors

3 . Build failures due to C-Code button C-Code

When you build your program in C-Style, usually, the build completes without error. However, when you use the C-Code button, the code inside of the button might have typos, or incorrect C syntax. When this happens, the build will fail.

In the example below, the error is that a semicolon is missing after the `wait_ms(50)` command.



If you click "OK" when the build fails, the error screen will appear.

Towards the bottom of the error screen, you can see the error message, in this case:

error: expected ";" before "{" token

Exit out of the build screen and fix your program.

Build again, and repeat fixing all errors until your program successfully builds.

4. Directly edit C-Code


When the C-Code button is shown (when the advanced mode is checked in the setup menu) you can switch between editing styles. One C-Style and the other is C-Code.

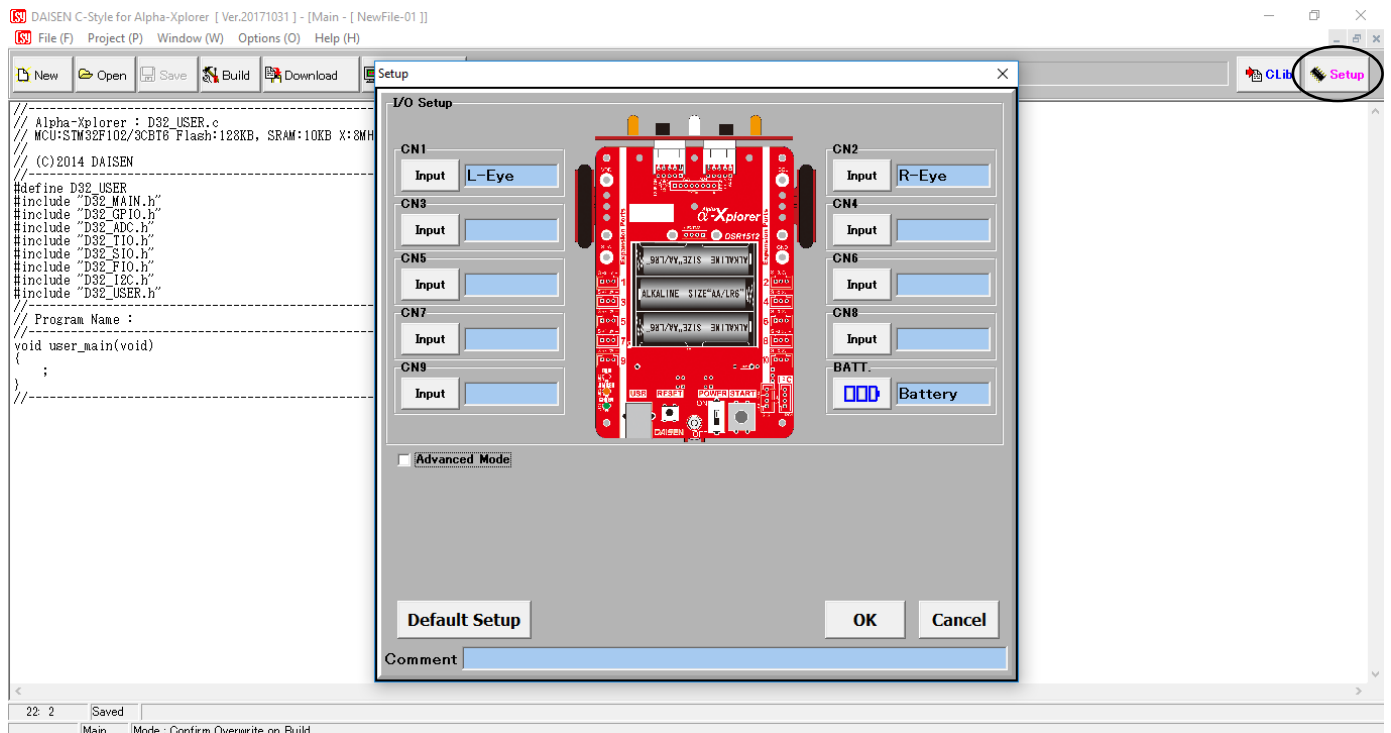


If you select C-Code editing style, the C-Style command buttons will be hidden and a C-Code editor will be shown.

You can write C-Code in this window, or you can write your C-Code in another editor program. For building and downloading, use the "Build" button just as you did with C-Style programs.

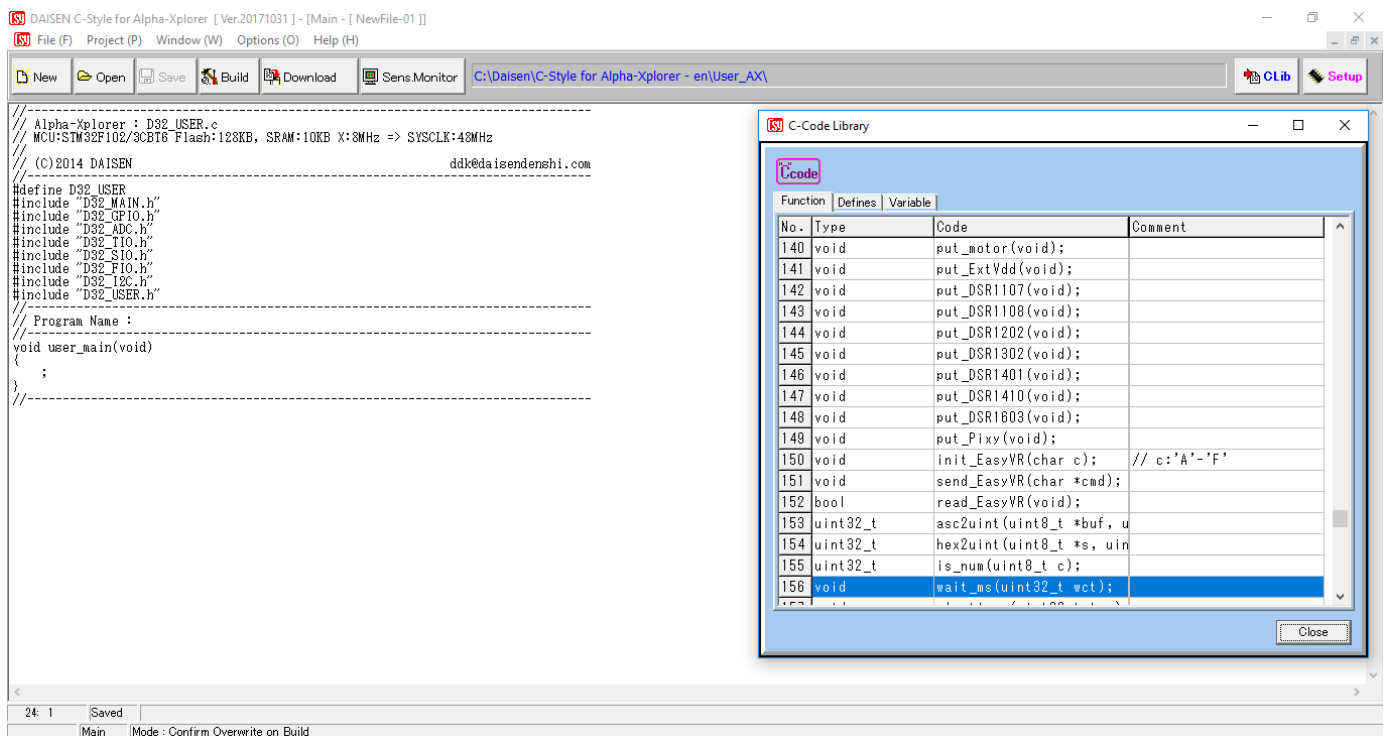


IMPORTANT: remember to set your robot's in and output ports  correctly with the setup button.



When you create a new file or you open your file, the advanced settings and the setup button will reset, so be sure to adjust the settings according to your program.

Show C-Code Library

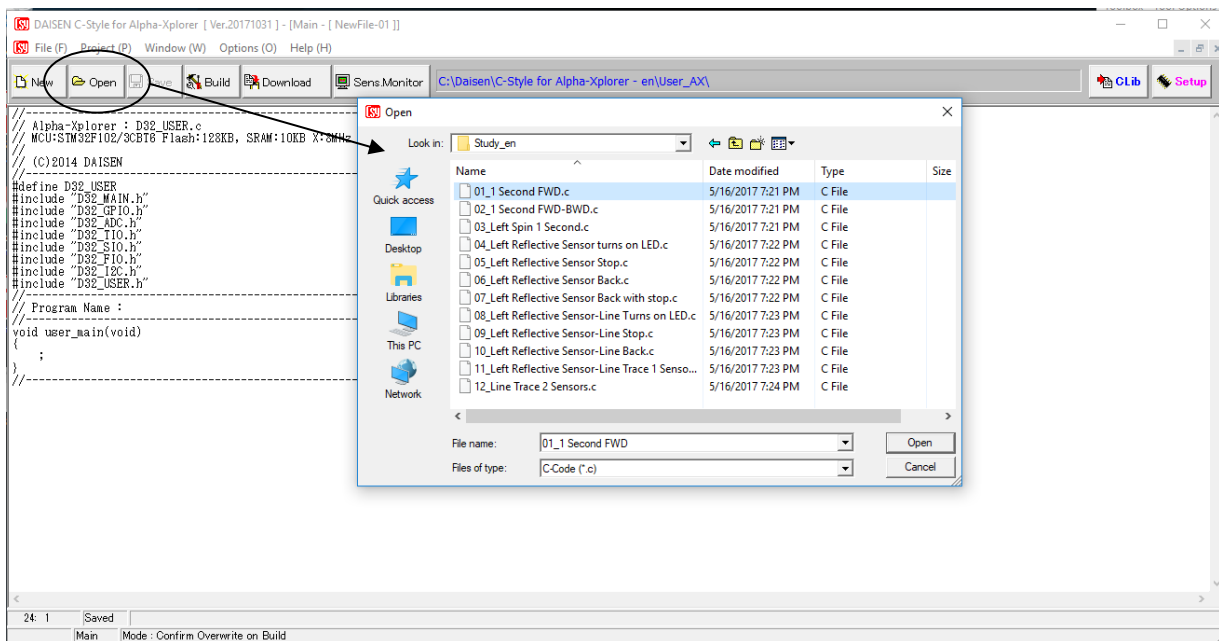


The C-Code commands you can use are listed in the C-Code library. Double-clicking a

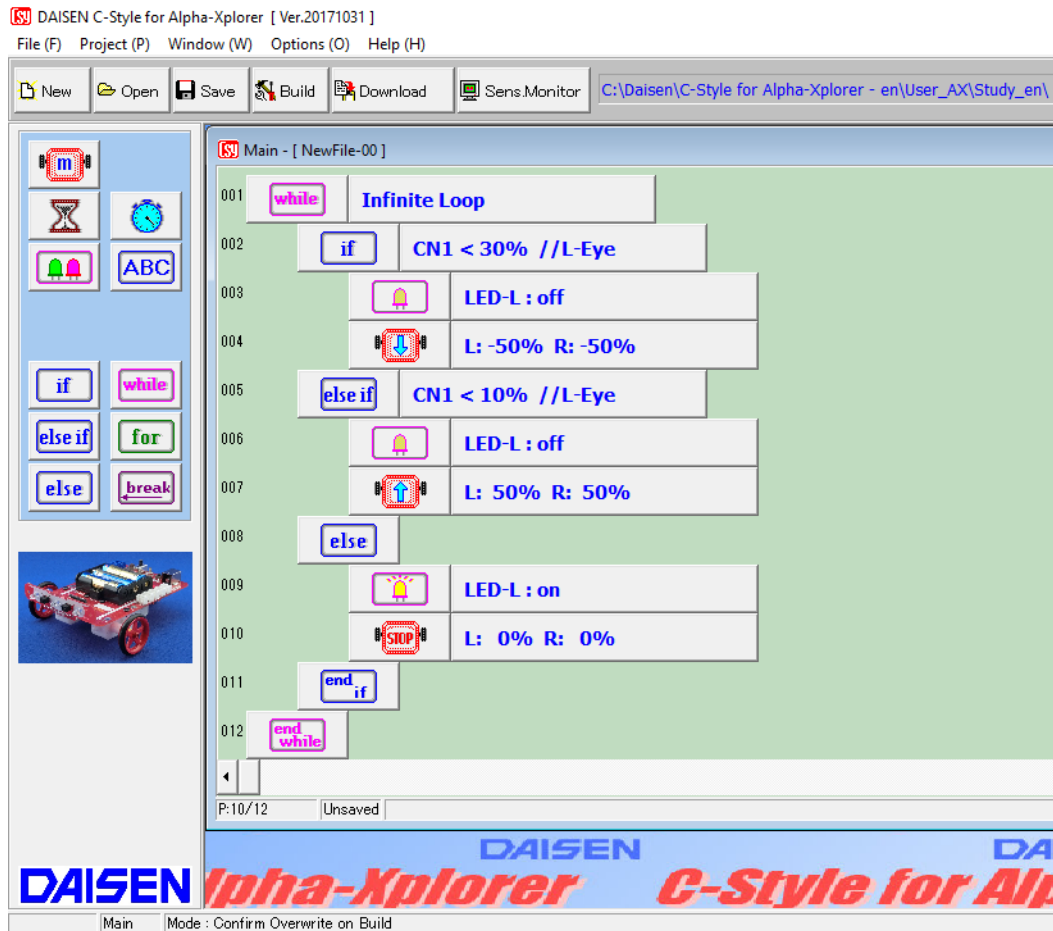
segment will insert that command into your code at the current cursor position.

Programs that were programmed in C-Style and built are saved in a C file as well as a C-Style file, so you can access your code that you wrote in C-Style in the C-Code editor.

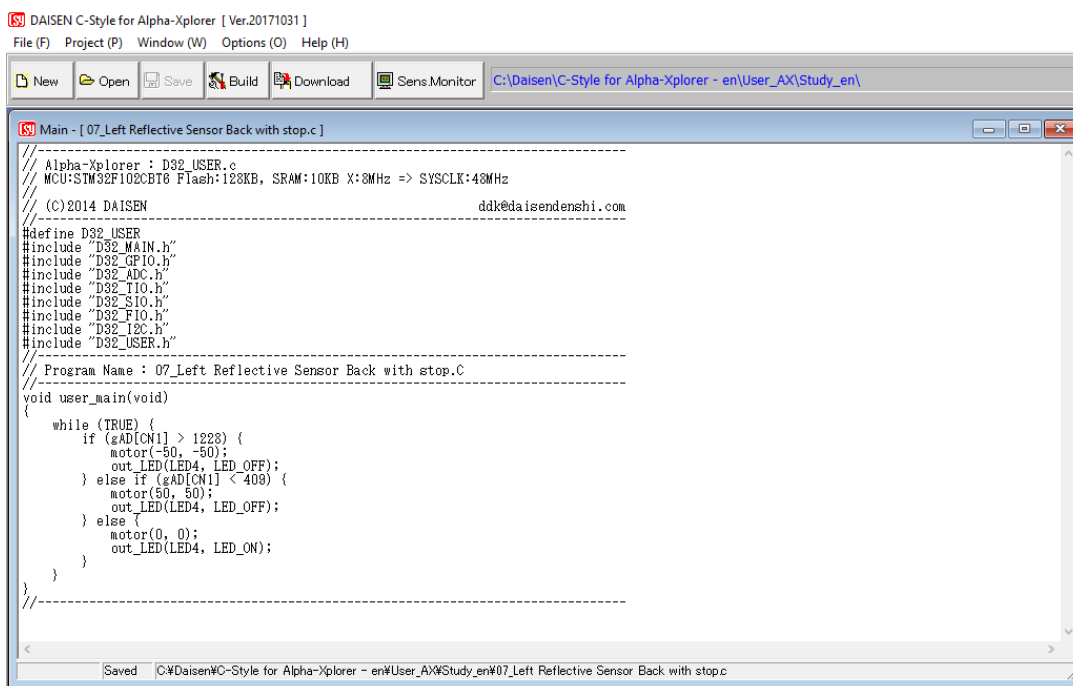
Open the C-Style program that makes the robot go forward for 1 second.



Build the C-Style program



Change the editing mode to C-Code and open the C file of the program.



Contact

Produced by K.K. DAISEN
4-9-24, Nipponbashi, Naiwa-ku, Osaka, Japan 556-0005

Sold by ROBOMOV
252 Nassau Street, Princeton, NJ, 08542
TEL: 609-865-9572
mineko@robomov.net
www.robomov.net