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EASY TO USE, VERSATILE ROBOTICS KITS

QuickC IDE - Rhino [RKI-1550]

User Manual

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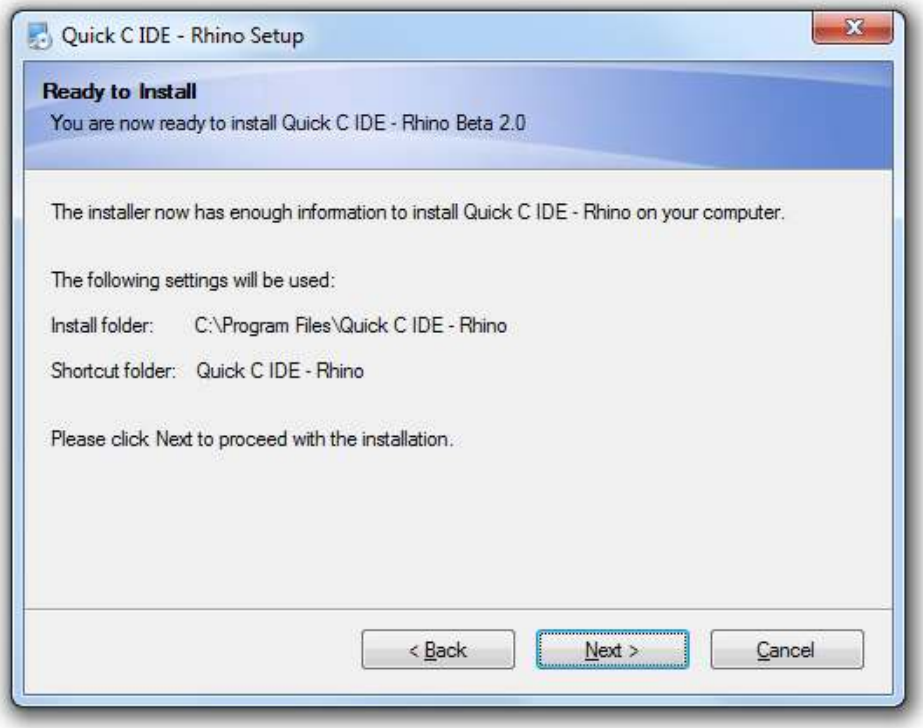
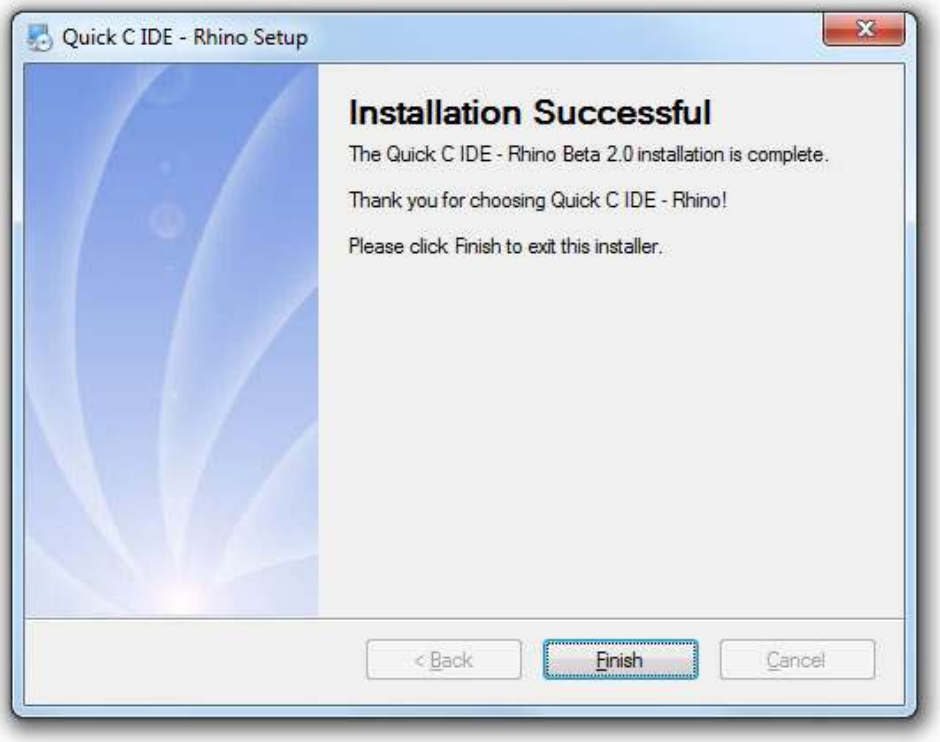
Quick C IDE - Rhino Installation

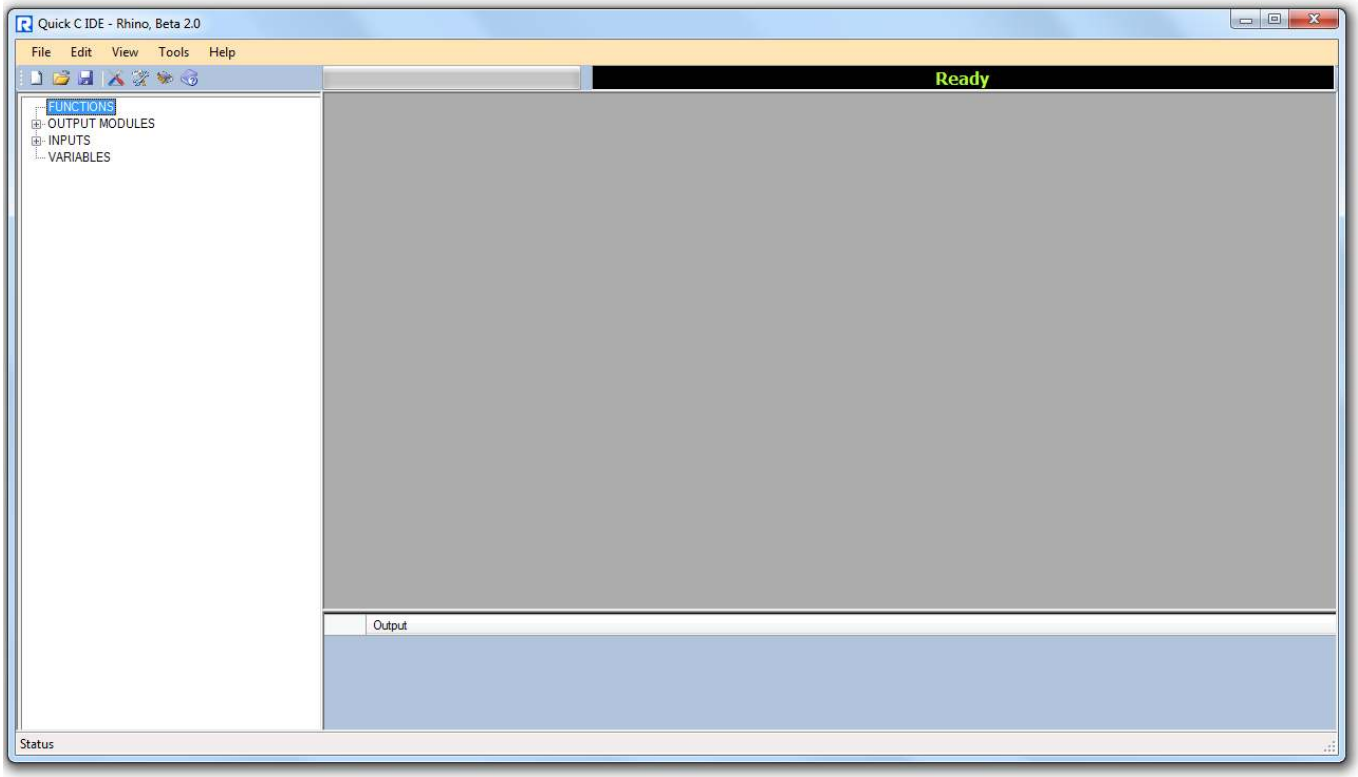
- **Make sure you have installed WINAVR before installing Rhino software.**
- **You can download WINAVR Software for free from http://www.robokits.co.in/downloads/WinAVR-20100110-install.exe**
- **To install QuickC run setup from CD. You will see following wizard once you run it.**


Quick C IDE - Rhino Setup
Ready to Install
You are now ready to install Quick C IDE - Rhino Beta 2.0
The installer now has enough information to install Quick C IDE - Rhino on your computer.
The following settings will be used:
Install folder: C:\Program Files\Quick C IDE - Rhino
Shortcut folder: Quick C IDE - Rhino
Please click Next to proceed with the installation.
< Back
Next >
Cancel

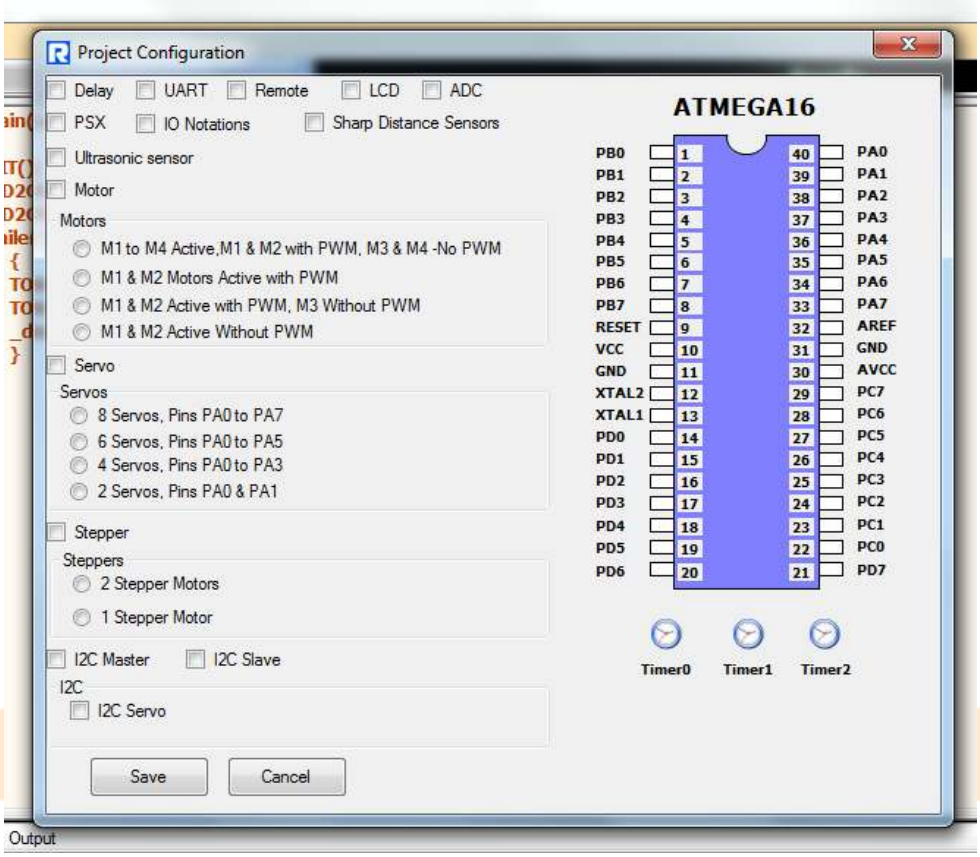

Quick C IDE - Rhino Setup
Installation Successful
The Quick C IDE - Rhino Beta 2.0 installation is complete.
Thank you for choosing Quick C IDE - Rhino!
Please click Finish to exit this installer.
< Back
Finish
Cancel

Quick C IDE - Rhino Introduction

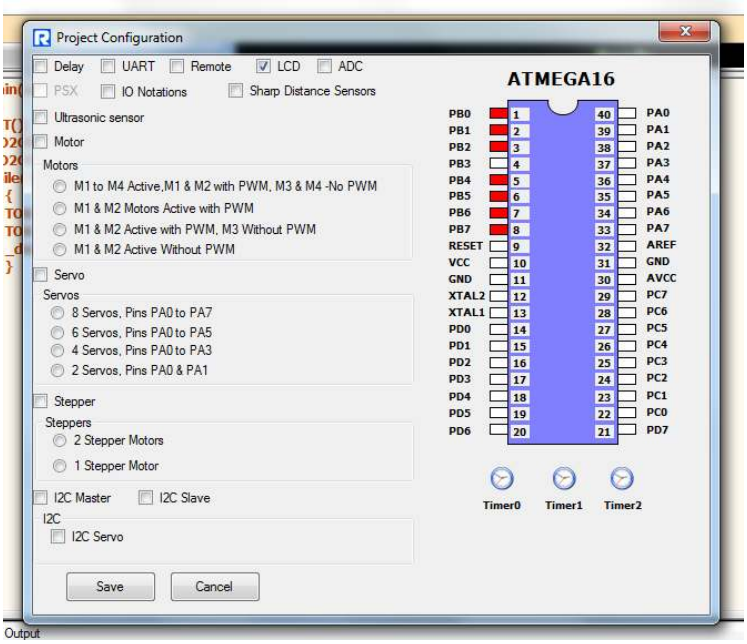
- **QuickC IDE - Rhino is easy to use software with multiple inbuilt libraries specifically for rhino board.**
- **The base compiler used for this IDE is winAVR which is a free source compiler.**
- **All functionality of winAVR software is already built in to this IDE with extra libraries specifically for Rhino board.**
- **Check QuickC IDE – Rhino Library reference file from http://www.robokits.co.in/downloads/quickclibraryref.pdf.**
- **Run exe file from startup menu or from desktop shortcut.**
- **Following screen will be shown up.**
- **In screen there is a Menu bar on the top.**
- **Below menu bar you will find shortcuts to few basic functionality just move cursor on top of it to see details.**
- **On right side of shortcut bar you will find progress bar and status bar which normally shows text "Ready".**



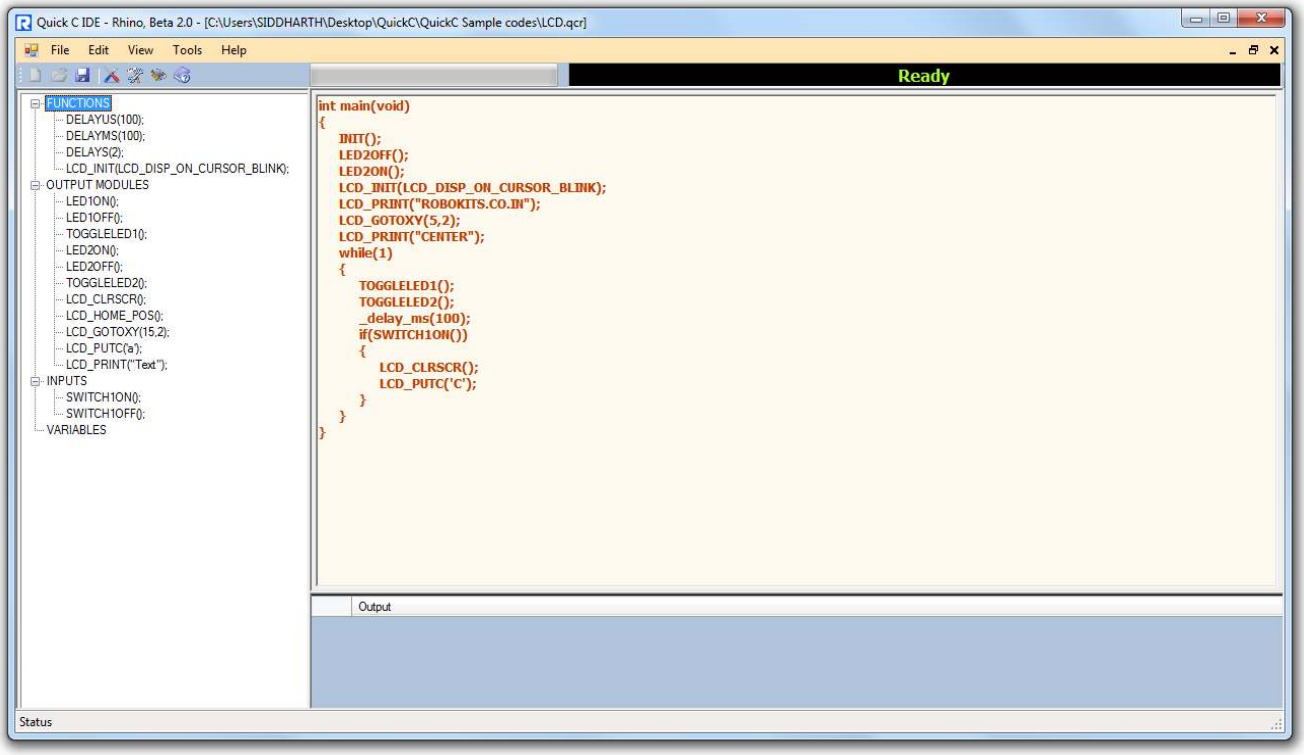
- **To create a new project click on File->New project or click appropriate shortcut for the same.**
- **Here you will see Project Configuration wizard as below.**



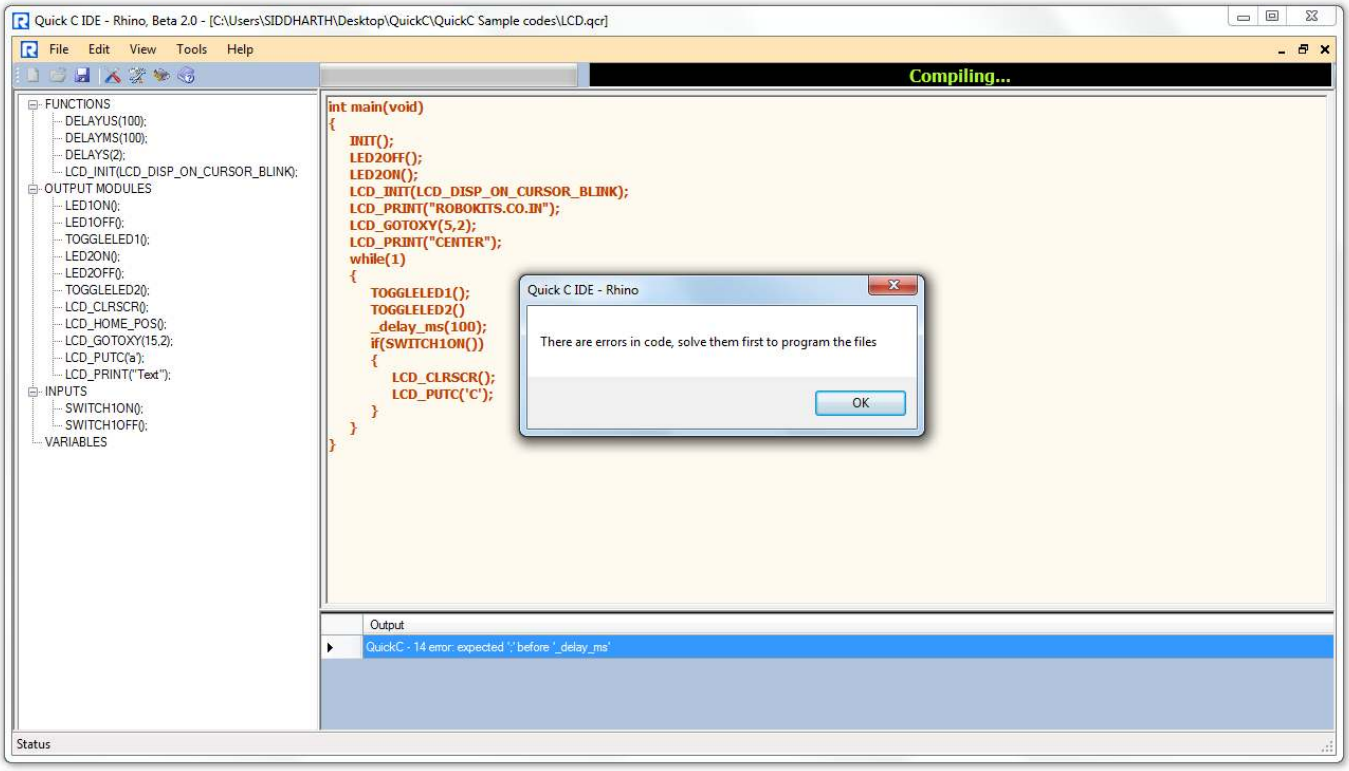
- **On left side of the wizard you will find all built in library include options and on right side you will find ATMega16 image with pinouts and used resources.**
- **You can include whatever libraries you want. You will see ATMega16 pins/timers highlighted once you select any library and few libraries will be disabled as you try include libraries which shares common resources.**
- **E.g. check following image where LCD library is used and hence PSX library is disabled.**



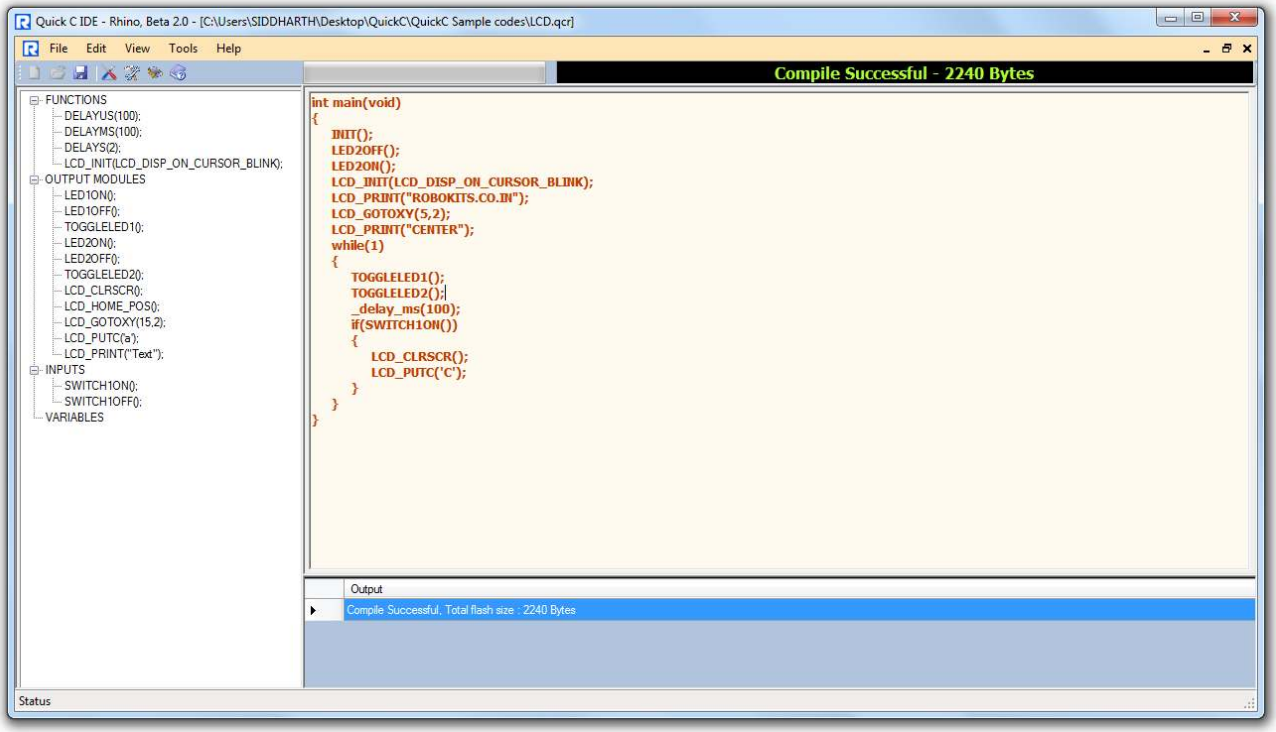
- **Select all libraries you need for a project and click save.**

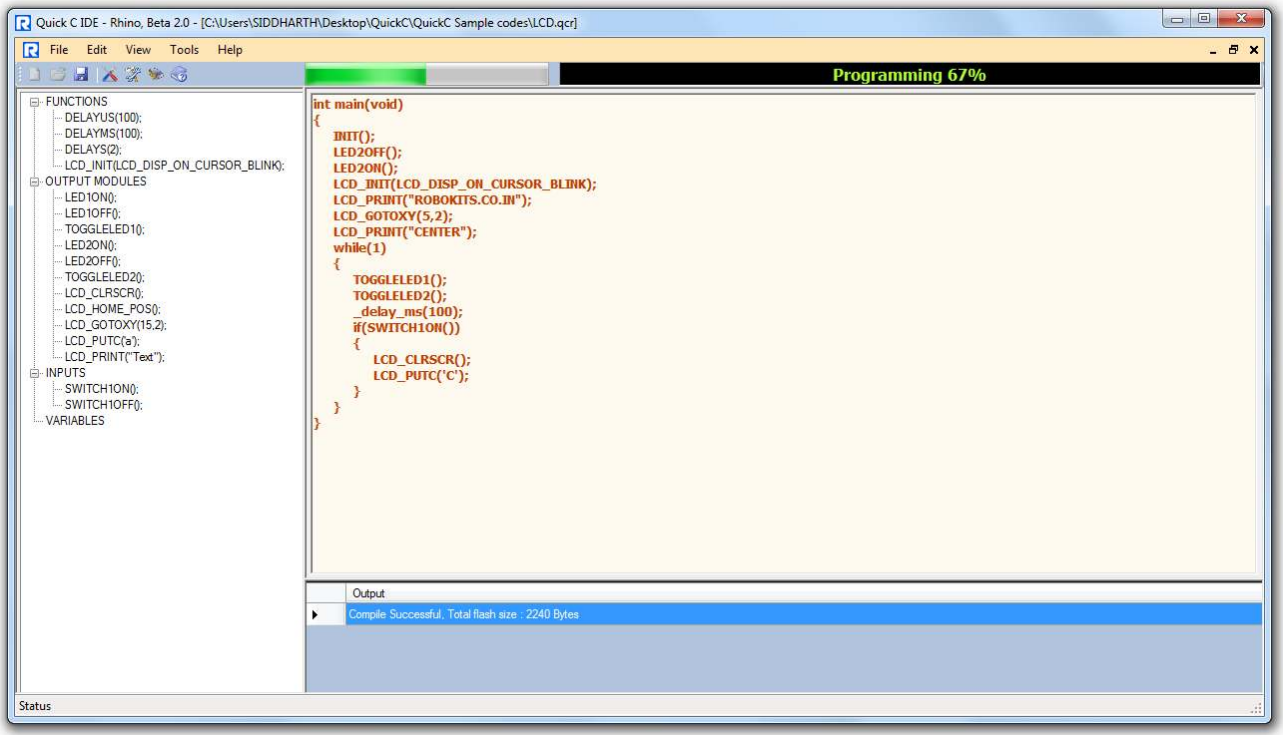


- **You will see above window with all functions available for all libraries you have selected on left side menu.**
- **You can right code for rhino board in the text file on right side.**
- **Code format should be just like C language.**
- **Generally a basic file will always be populated when you create a new project.**
- **You can simply add functions by clicking them from left menu and they will be added to main code wherever your cursor is present.**
- **There are a few sample codes available on CD which will help you understand the IDE in proper way.**
- **Also check application notes for this board from our website www.robokits.co.in.**
- **Once you are ready with the code just click Tools->Compile(F7) or you can use a shortcut for the same.**
- **If there are any errors you will see following screen and you will see all errors in bottom output window section with the line number.**
- **Click on the error and it will move the cursor to the error line or below that.**



- **Solve all the errors if there are any and your program will be compiled successfully and then click Tools->Program(F4) to program the Rhino board.**
- **Make sure your board is connected properly to the USB cable and drivers are installed properly. Check http://robokits.co.in/resources/?page_id=113 for driver installation procedure.**


Quick C IDE - Rhino, Beta 2.0 - [C:\Users\SIDDHARTH\Desktop\QuickC\QuickC Sample codes\LCD.qcr]
File Edit View Tools Help
Compile Successful - 2240 Bytes
FUNCTIONS
DELAYUS(100);
DELAYMS(100);
DELAYS(2);
LCD_INIT(LCD_DISP_ON_CURSOR_BLINK);
OUTPUT MODULES
LED1ON();
LED1OFF();
TOGGLELED1();
LED2ON();
LED2OFF();
TOGGLELED2();
LCD_CLRSCR();
LCD_HOME_POS();
LCD_GOTOXY(15,2);
LCD_PUTC('a');
LCD_PRINT("Text");
INPUTS
SWITCH1ON();
SWITCH1OFF();
VARIABLES
int main(void)
{
INIT();
LED2OFF();
LED2ON();
LCD_INIT(LCD_DISP_ON_CURSOR_BLINK);
LCD_PRINT("ROBOKITS.CO.IN");
LCD_GOTOXY(5,2);
LCD_PRINT("CENTER");
while(1)
{
TOGGLELED1();
TOGGLELED2();
_delay_ms(100);
if(SWITCH1ON())
{
LCD_CLRSCR();
LCD_PUTC('C');
}
}
}
Output
Compile Successful, Total flash size : 2240 Bytes
Status


Quick C IDE - Rhino, Beta 2.0 - [C:\Users\SIDDHARTH\Desktop\QuickC\QuickC Sample codes\LCD.qcr]
File Edit View Tools Help
Programming 67%
FUNCTIONS
DELAYUS(100);
DELAYMS(100);
DELAYS(2);
LCD_INIT(LCD_DISP_ON_CURSOR_BLINK);
OUTPUT MODULES
LED1ON();
LED1OFF();
TOGGLELED1();
LED2ON();
LED2OFF();
TOGGLELED2();
LCD_CLRSCR();
LCD_HOME_POS();
LCD_GOTOXY(15,2);
LCD_PUTC('a');
LCD_PRINT("Text");
INPUTS
SWITCH1ON();
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INIT();
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LCD_PRINT("CENTER");
while(1)
{
TOGGLELED1();
TOGGLELED2();
_delay_ms(100);
if(SWITCH1ON())
{
LCD_CLRSCR();
LCD_PUTC('C');
}
}
}
Output
Compile Successful, Total flash size : 2240 Bytes
Status

- **If everything is fine the board will be programmed and you will get a "Program Complete" message on the status bar.**
- **Similarly you can write all kind of codes in C very quickly with all functions built in and it will be a very simple way to start with the Rhino robot control board.**
- **The IDE is made for simple and even advance codes and you can make the board work anyway you want it to be.**
- **Refer C:\WinAVR-20100110\doc\avr-libc\avr-libc-user-manual\modules.html for details of built in libraries of WINAVR. Also this libraries can be used without any extra efforts with this IDE.**

Service and Support

Service and support for this product are available from Robokits India. The Robokits Web site (http://www.robokits.co.in) maintains current contact information for all Robokits products.

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