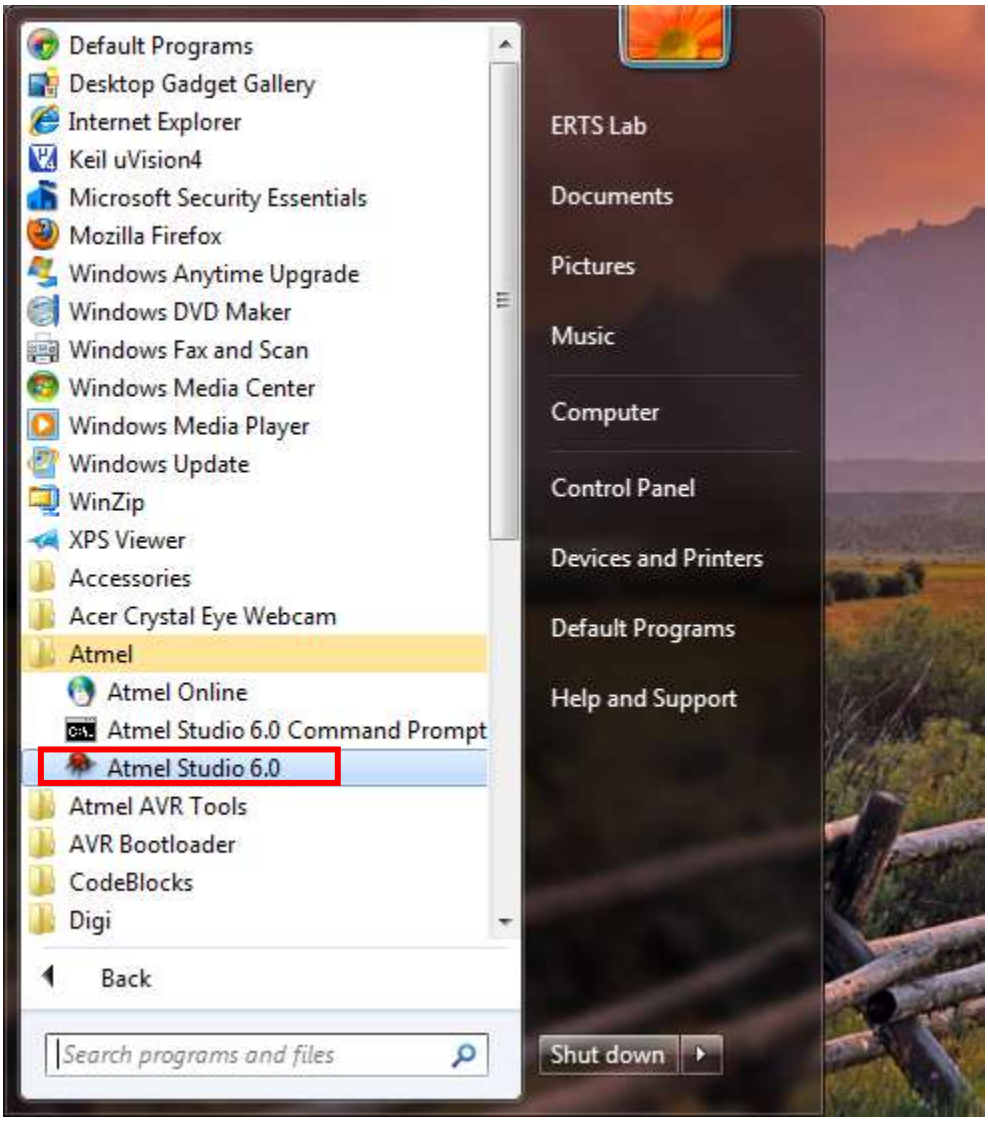
I. Creating New project in C for Firebird V in Atmel Studio 6

The steps for creating new project in Atmel Studio 6 for Firebird V robot programming are as follows:

1. Launch the Atmel Studio 6 after installation.Click on the shortcut icon.

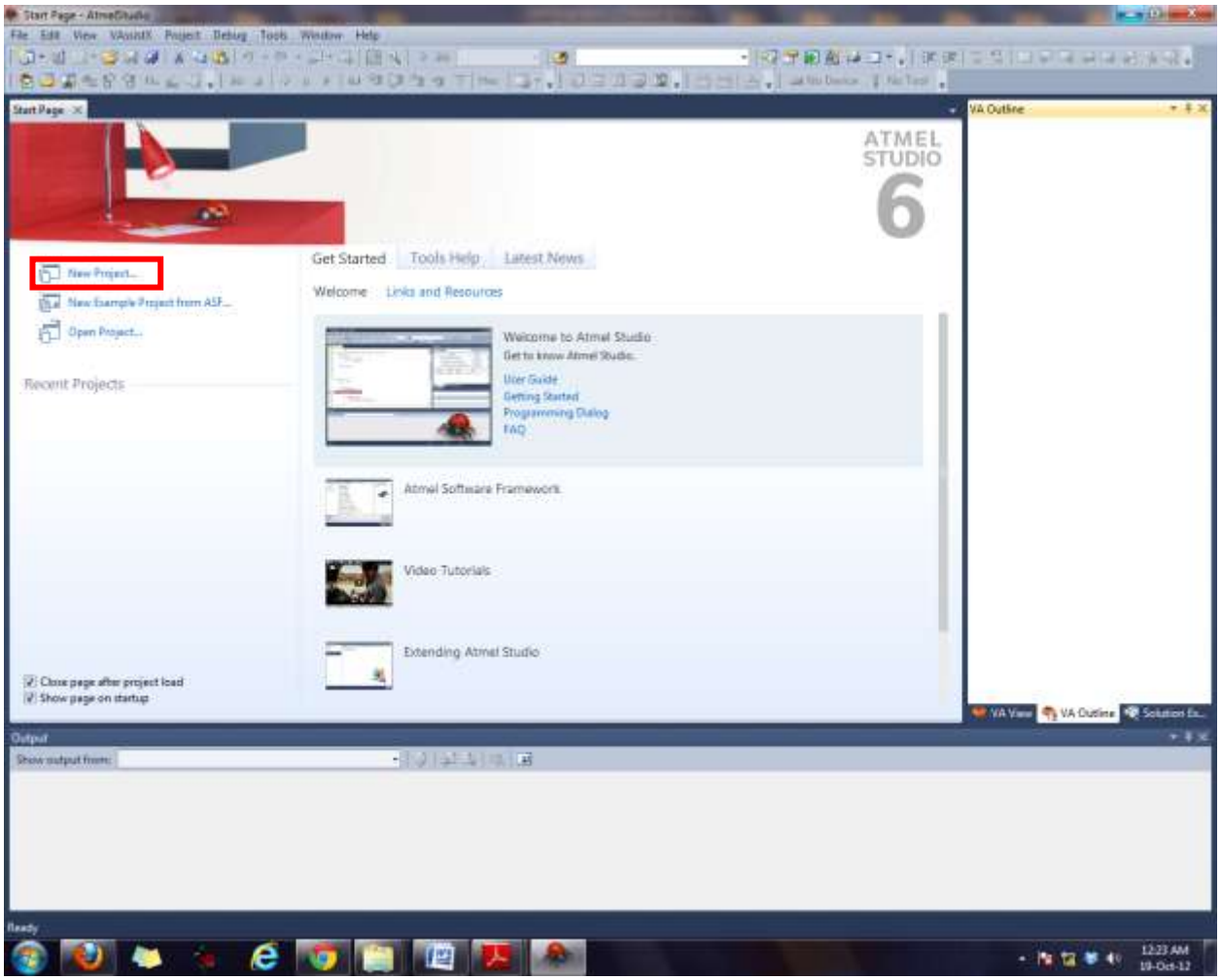
OR

1. Launch the Atmel Studio 6 from the Atmel Folder from Startup.

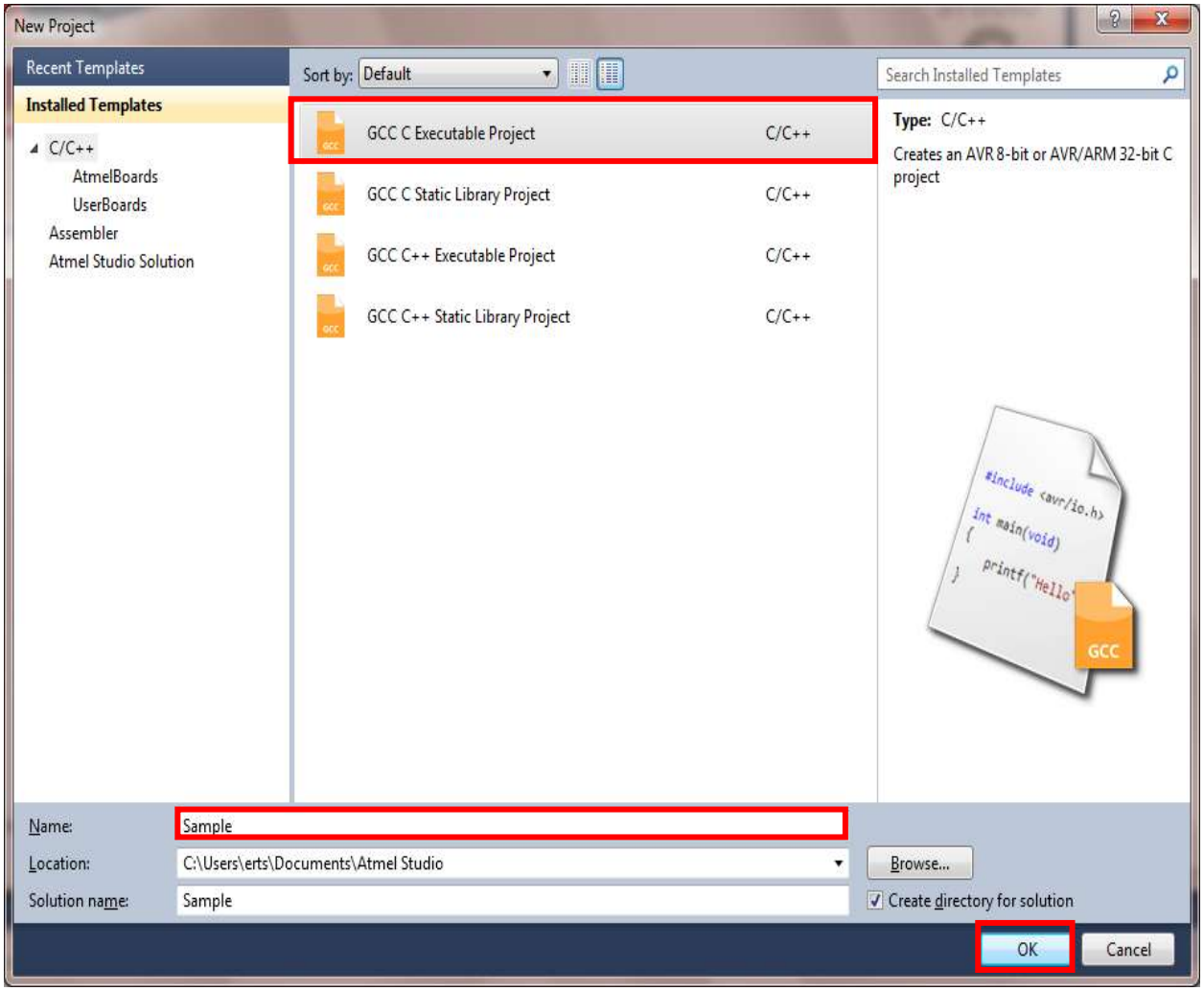


2. On the Start page of Atmel Studio 6, Click on New Project to create new project. If the Start Page is not visible, the alternative is to go to menu bar option File >New>Project.

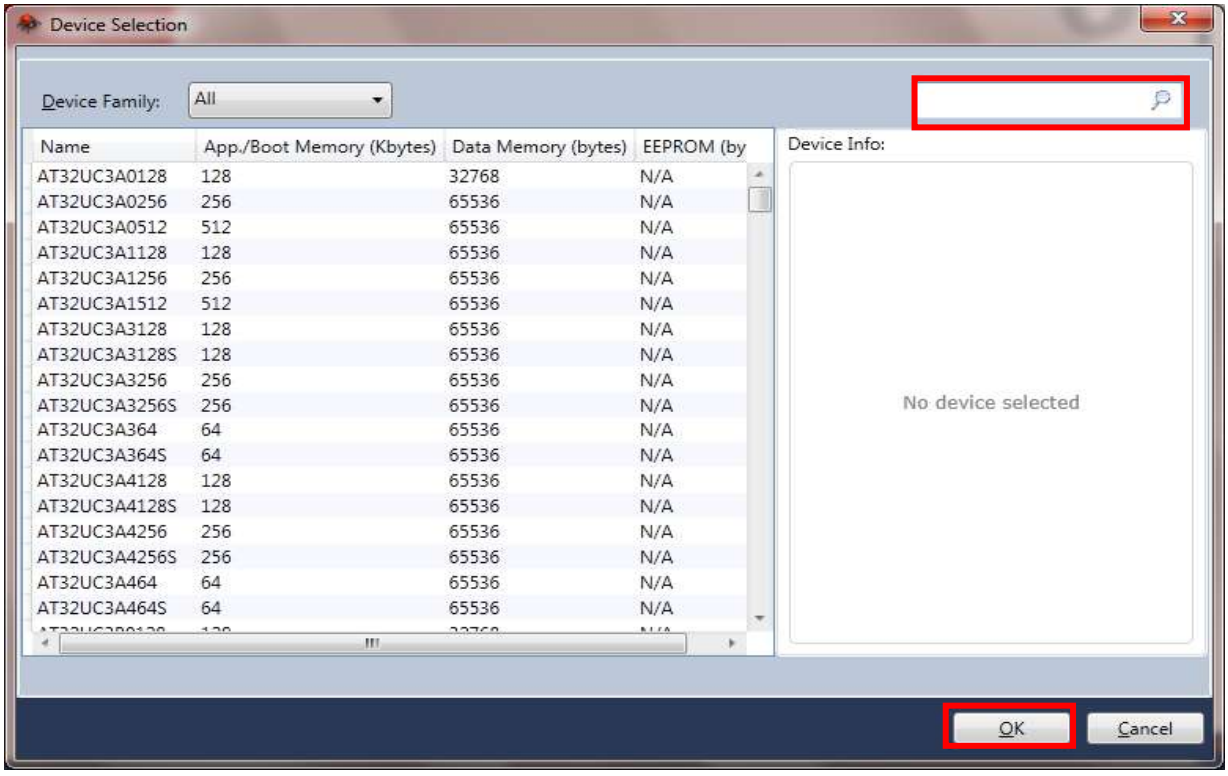
   (If any project is already running it can be closed by clicking on **File** in the menu bar and selecting **Close Solution**.)



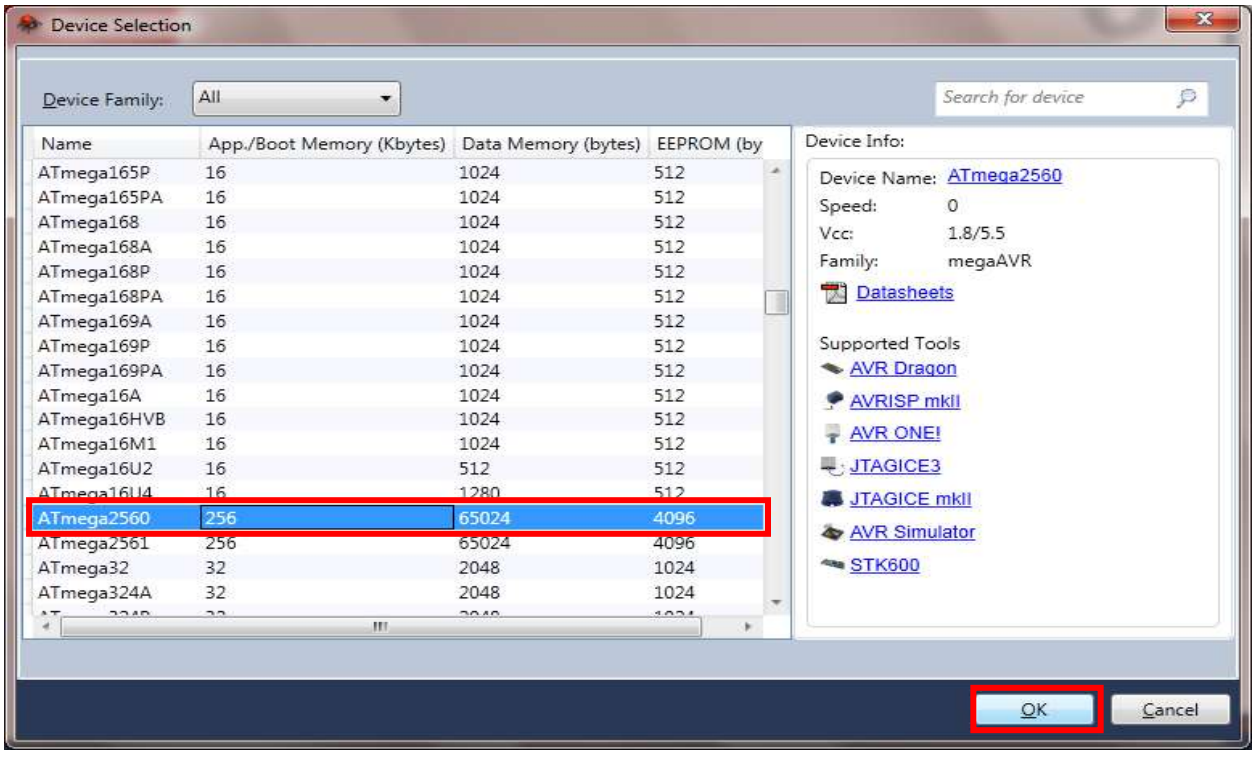
3. Select Project Type as “GCC C Executable Project”. Type project name in the **Name window**. In this case we call the project “Sample”. In the **Location window** select the place where you would like to store your project folder and then click “OK”.



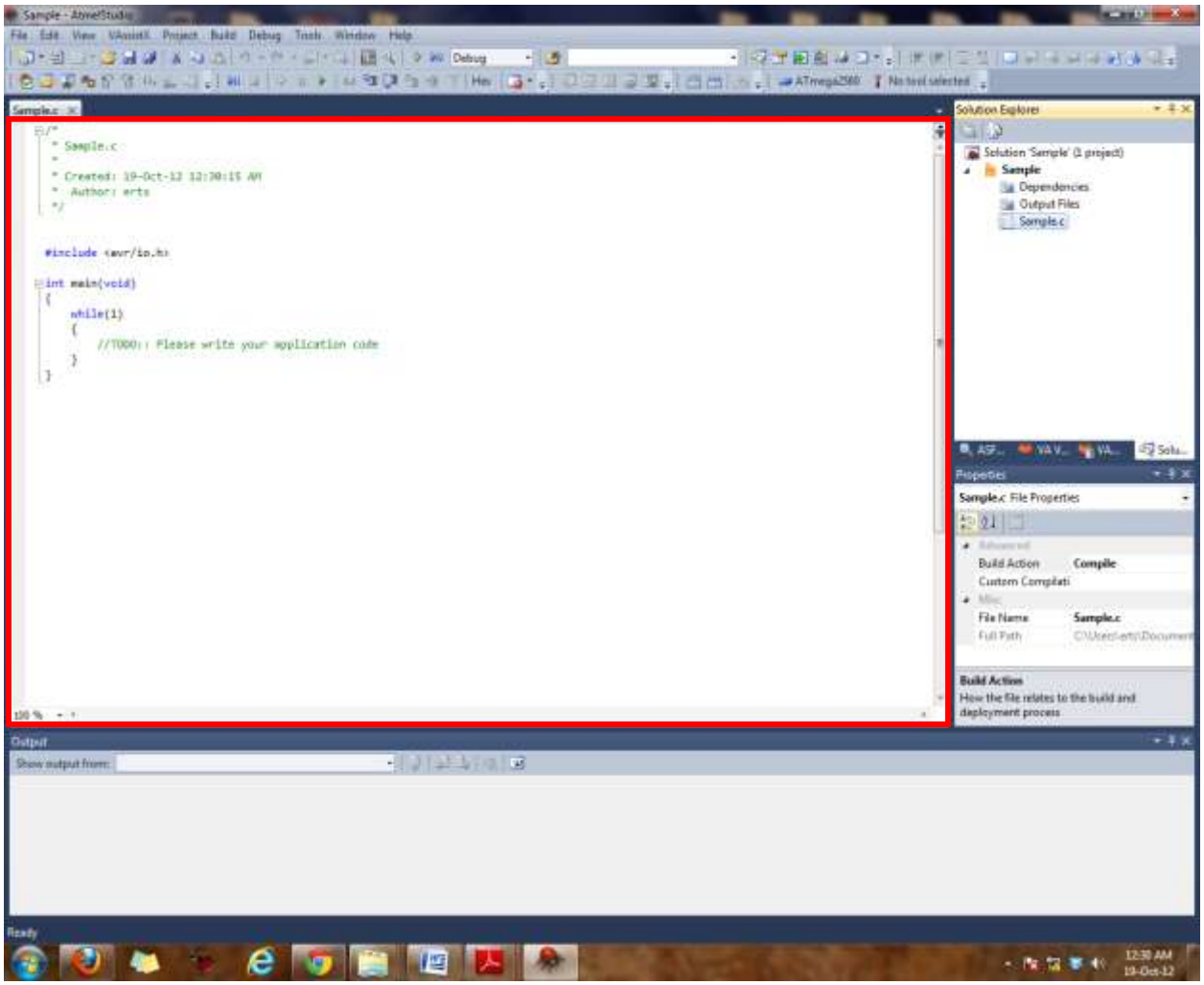
4. To select the device, search for “Atmega 2560” in the search bar of the device Selection window or



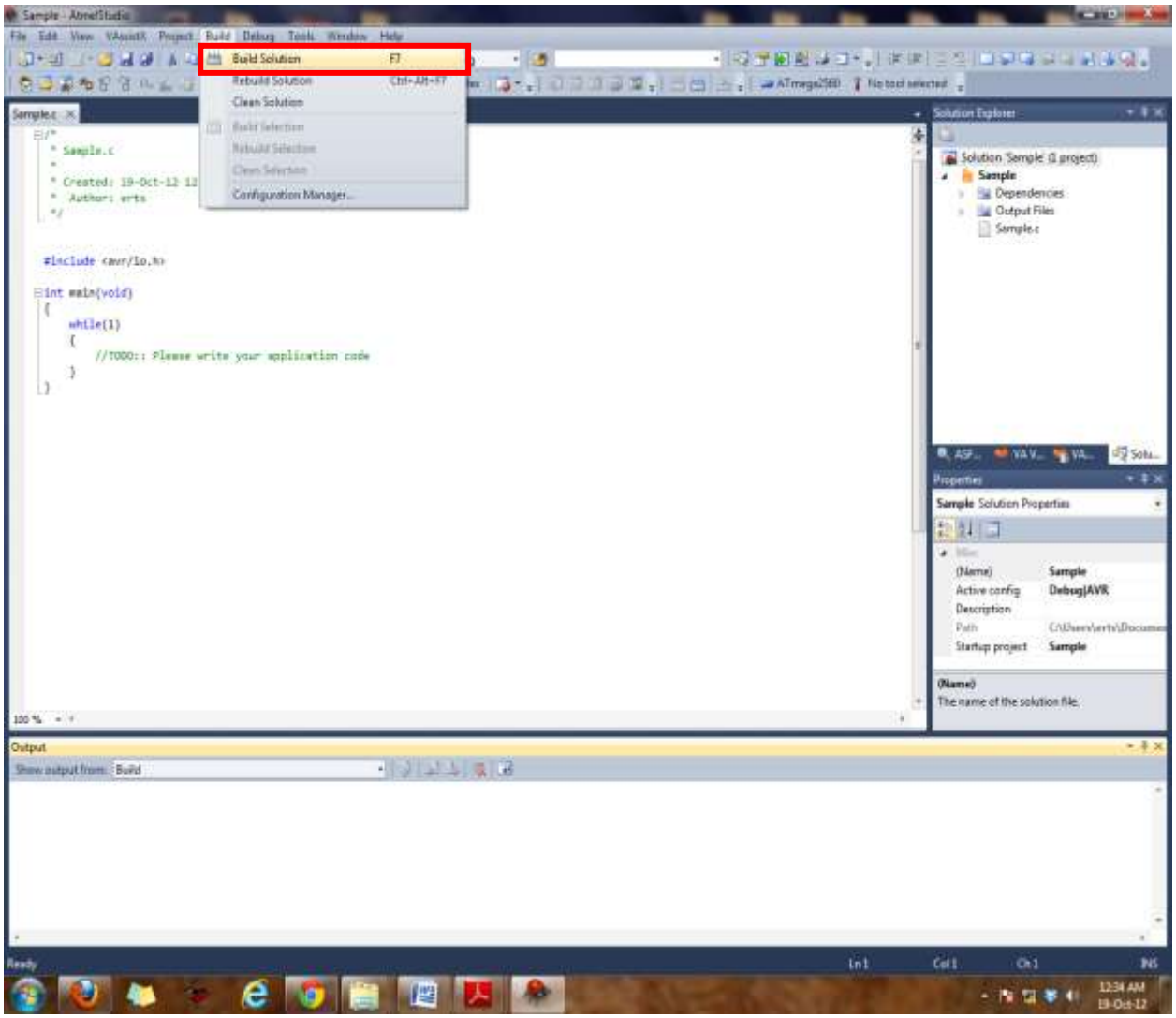
5. Scroll down Select device to “Atmega 2560” and click on OK



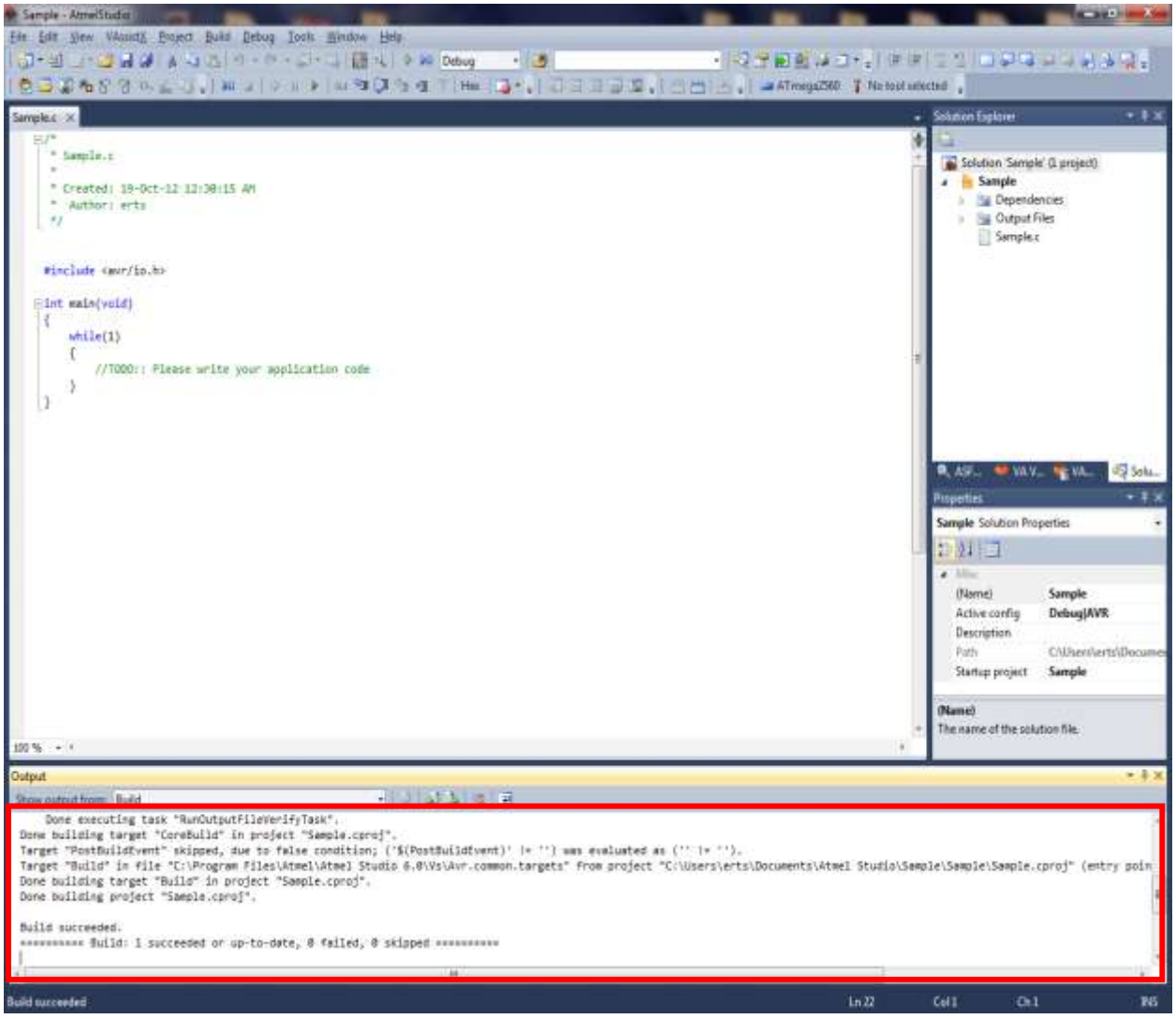
6. Now we are almost ready to write our code. The window shown below is the editor using which C code is to be written.



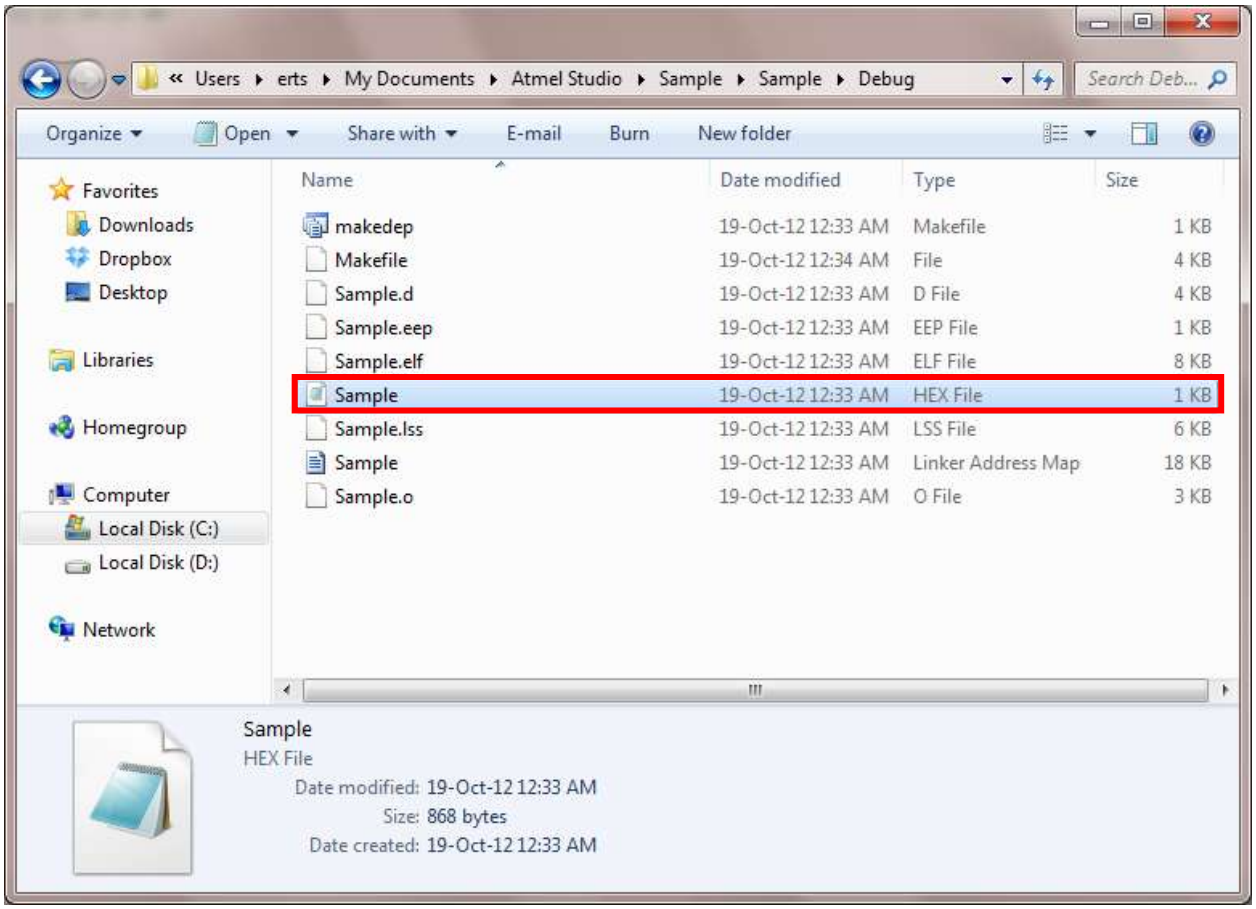
7. After completion of the code we need to select **Build** menu and click on **Build Solution;** instead we can use the shortcut key F7. This will compile the "Sample.c" code and will generate "Sample.hex" file for the robot's microcontroller.



8. You can verify successful compilation in the bottom most **Output window** of the Atmel Studio. (You also need to debug your code if the output window prompts for any error.)



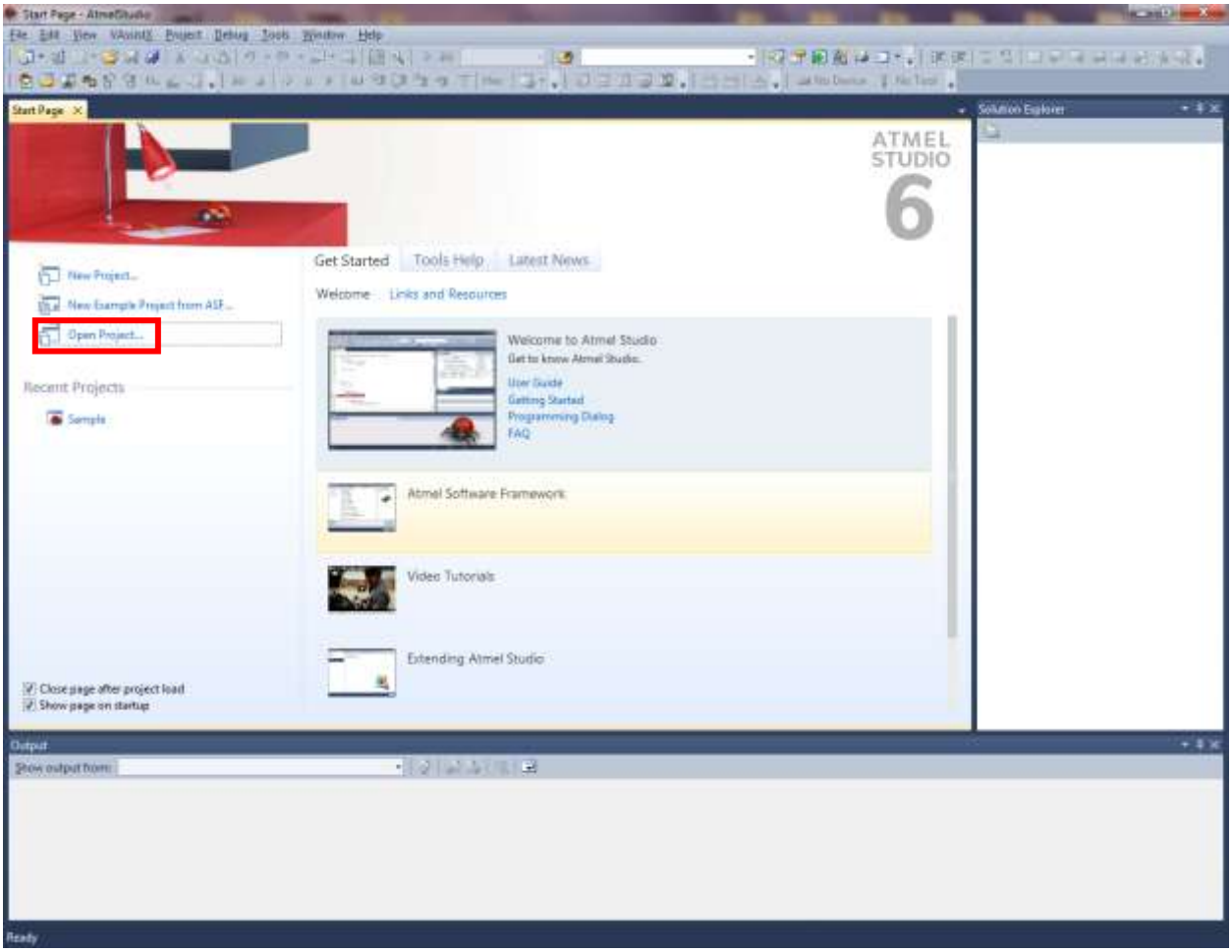
9. You can verify that “Sample.hex” file is generated in the **debug** folder (default folder in case using the AVR studio 4) inside the Project folder you have created.



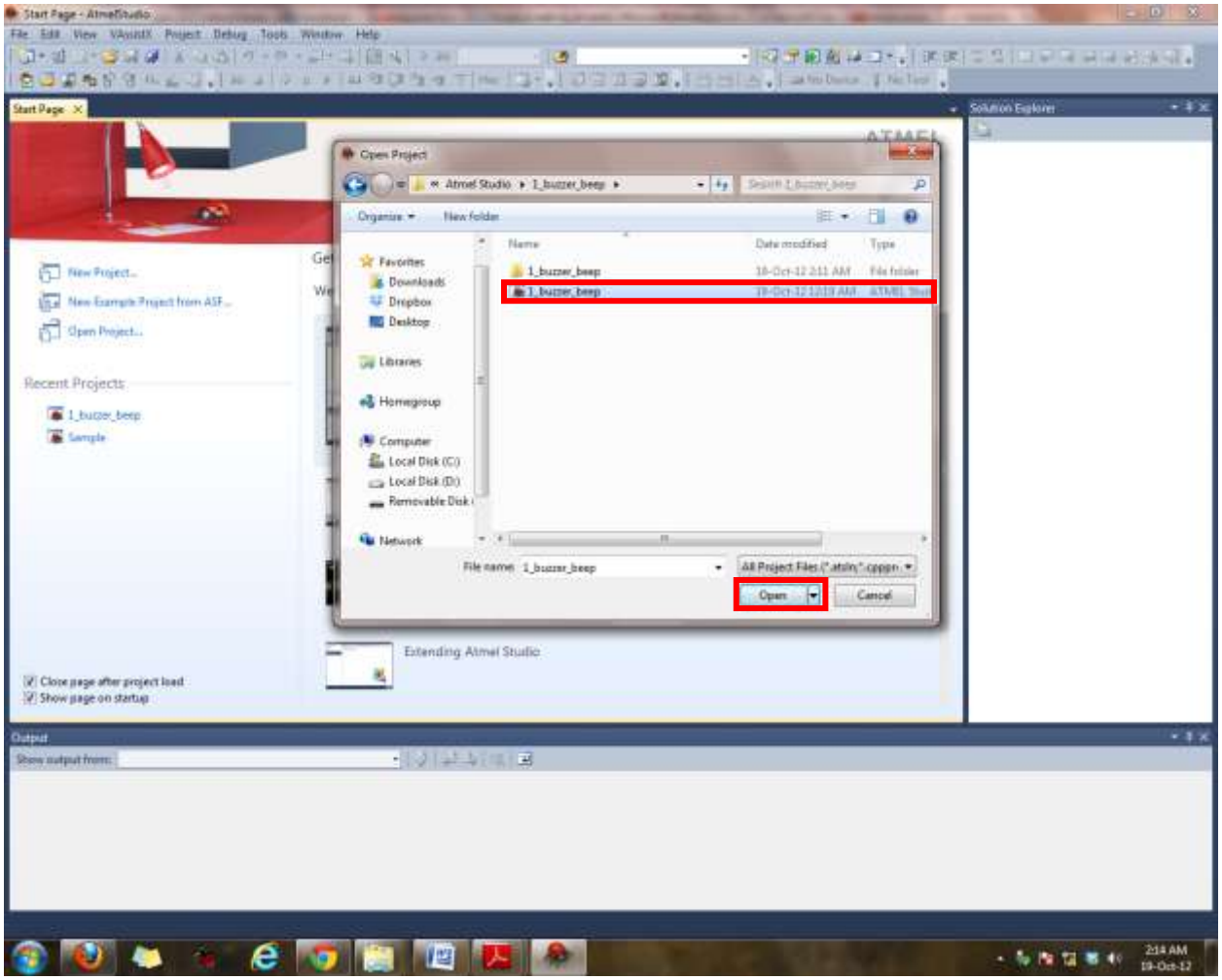
.hex file should be loaded on the robot via serial port or USB port of the Fire Bird V robot. Robot is shipped with the bootloader to program robot via USB port. For loading your code on robot using AVR Boot loader refer to document **Installing and using AVR bootloader.**

II. Open Existing project in Atmel Studio 6

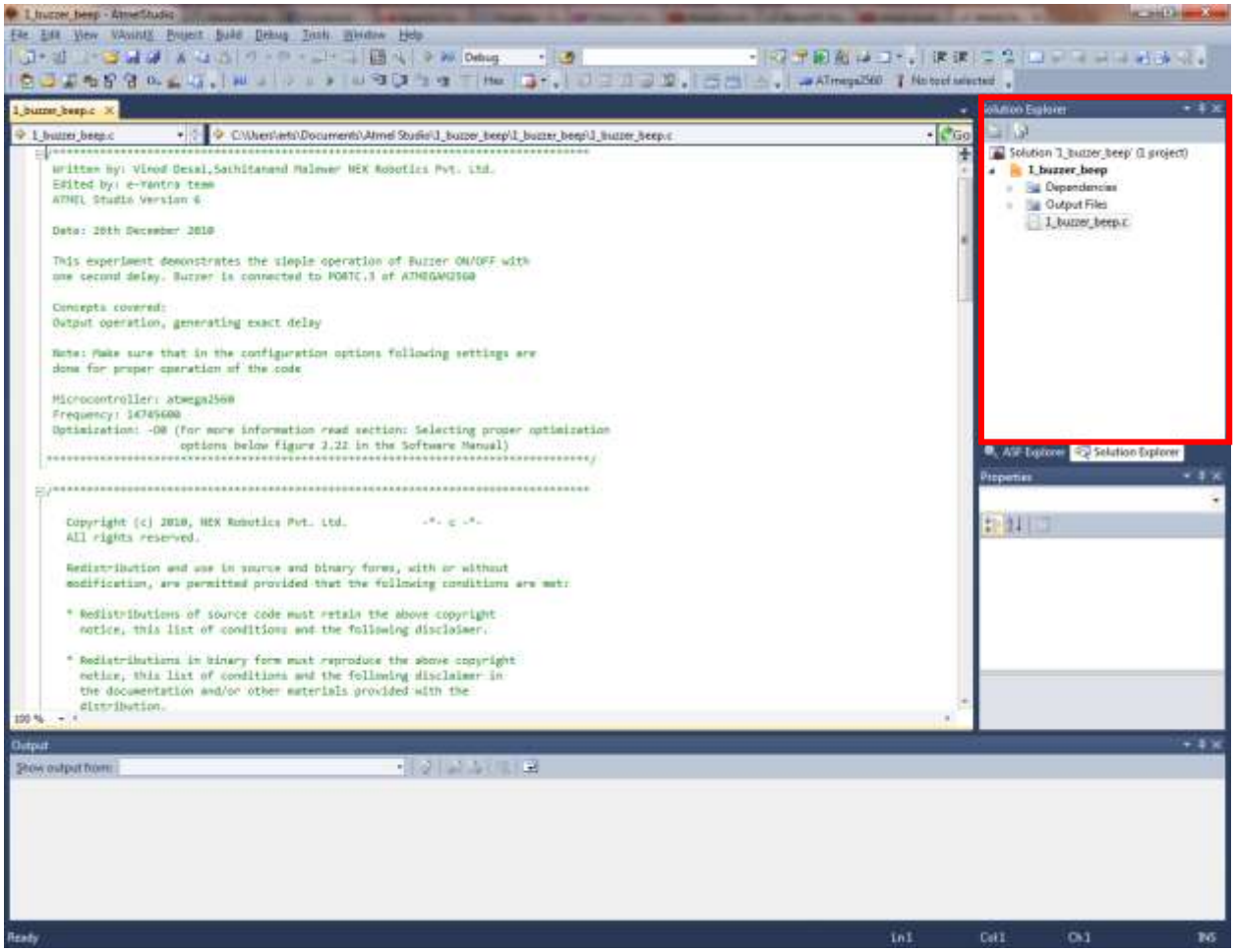
1. Launch the Atmel Studio 6 and Click on **Open Project** on the Start page. If the Start Page is not visible the alternative is to go to menu bar option File >Open>Project.



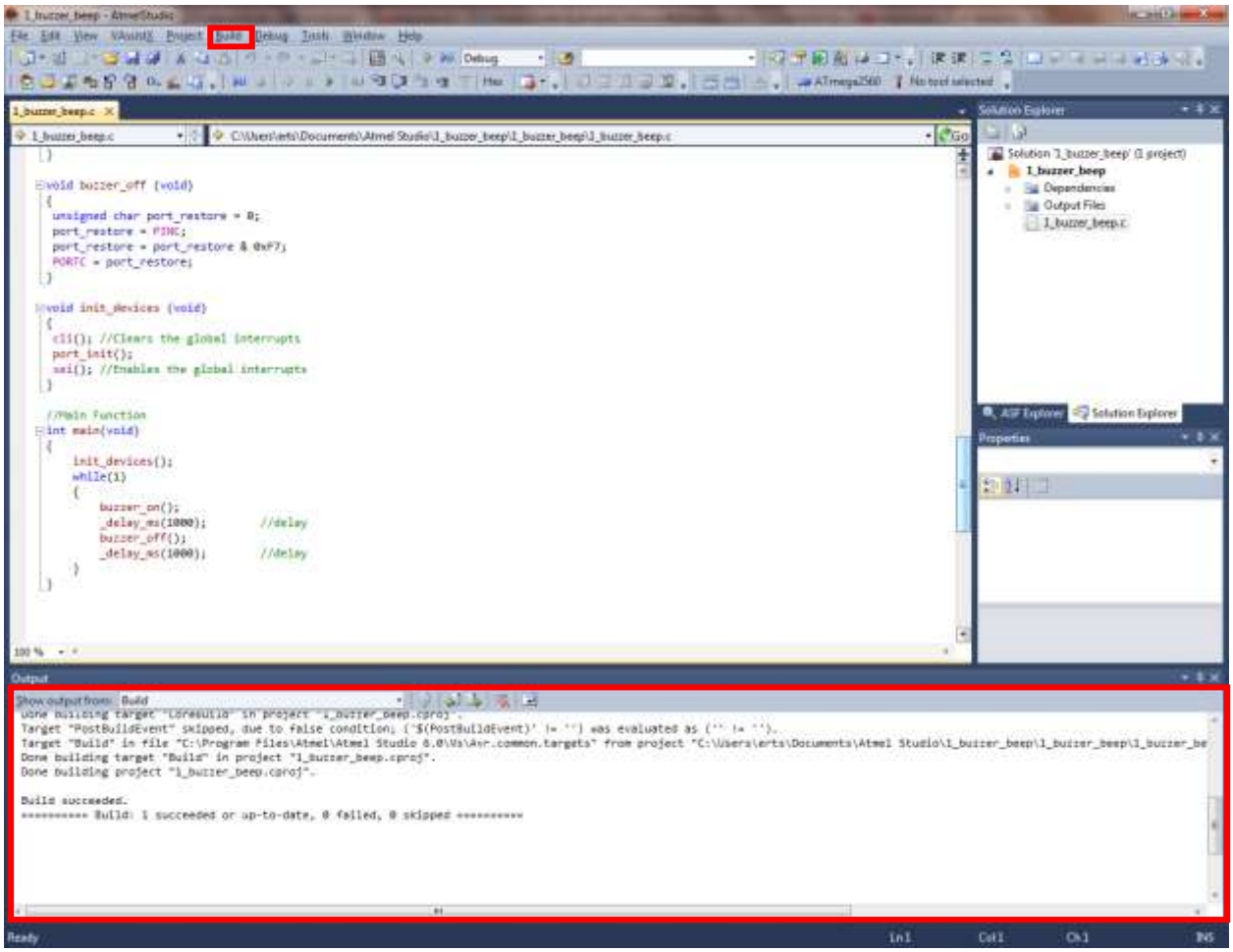
2. Browse the path of the .sln file to open the existing solution/project. Click on Open.



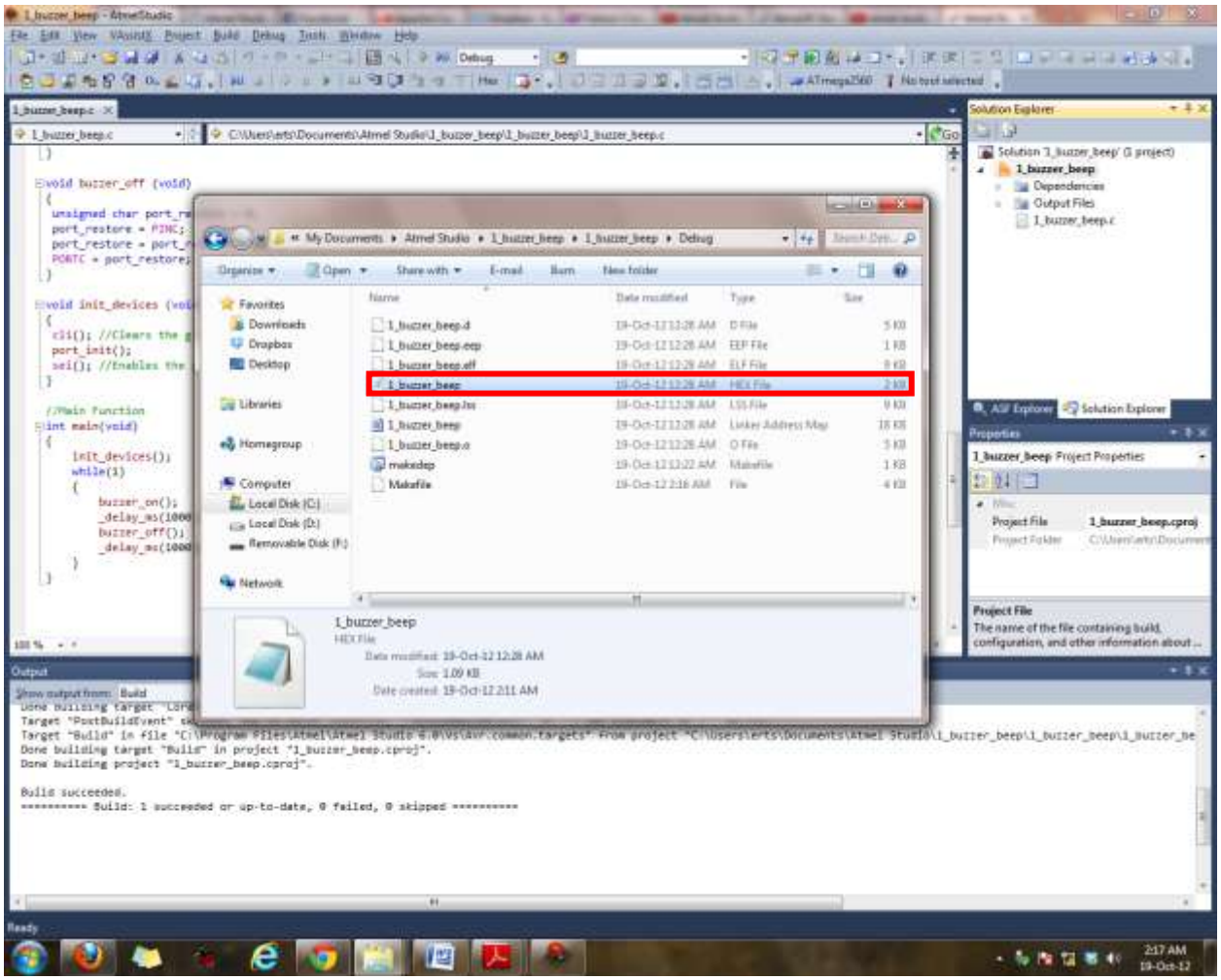
3. The project will load and you can view the code by clicking on the .c file from the **Solution Explorer,** which is on the right side window.



4. To code we need to select **Build** menu and click on **Build Solution**; instead we can use the shortcut key F7. You can verify successful compilation in the bottom most **Output window** of the Atmel Studio 6.



5. You can also verify that .hex file is generated in the **debug** folder (default folder in case using the AVR studio 4) inside the project folder you have created.



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