TENET TECHNETRONICS

"Simplifying Technology for Life"

2016

Interfacing Push button with MPLAB Xpress Evaluation Board

Siva A

Tenet Technetronics

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Introduction

MPLAB Xpress IDE cost free development platform. It's cloud Based IDE available from microchip supporting PIC-based microcontrollers. The platform is comprised of code editor, build automation tools, debugger, code configurator. MPLAB Xpress IDE is an end-to-end solution enabling engineers to develop their applications from initial evaluation to final production.

Component Requirement

- **Hardware:**
  - MPLAB Xpress evaluation tool
  - LED
  - Push Button
- **Software:**
  - MPLAB Xpress IDE

Note: we have on board LED

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Procedure

Step 1: Open your Browser and go to following link

https://mplabxpress.microchip.com/mplabcloud/ide

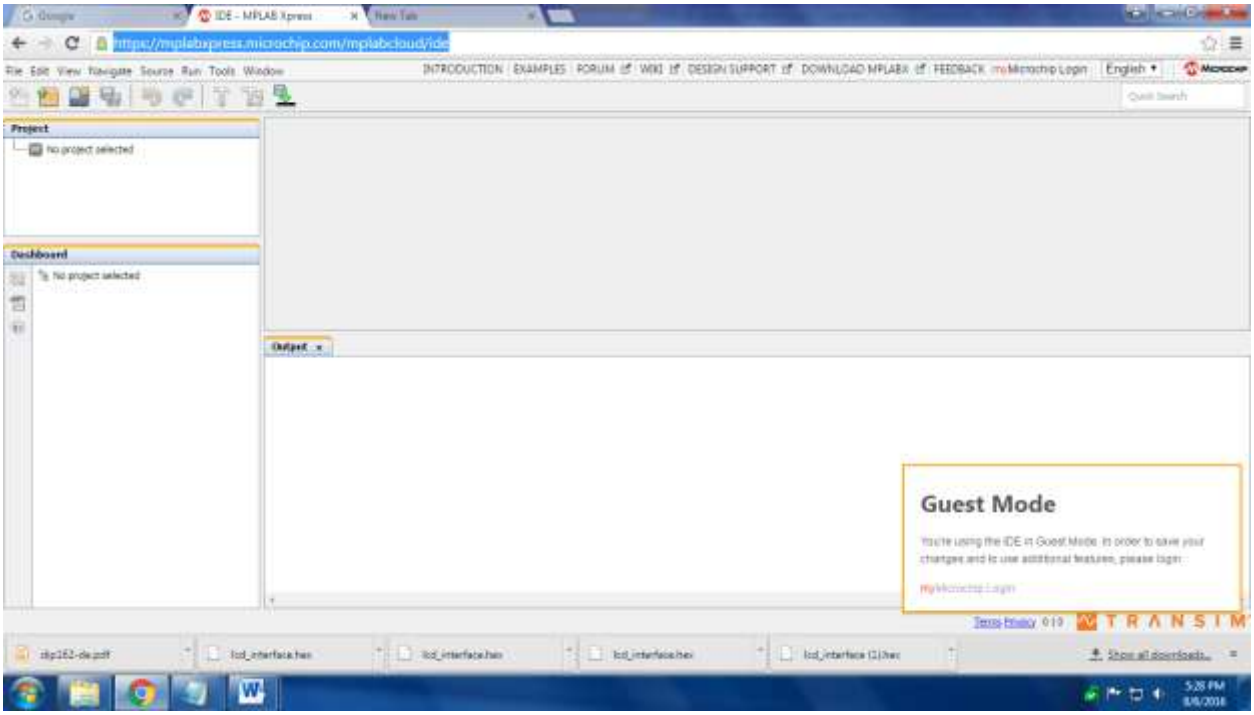

Figure 1 MPLAB Xpress IDE main window

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Step 2: Start creating our new project. Go to **File** >> **New Project.** Select **microchip embedded** as well as **standalone project** then click **next**

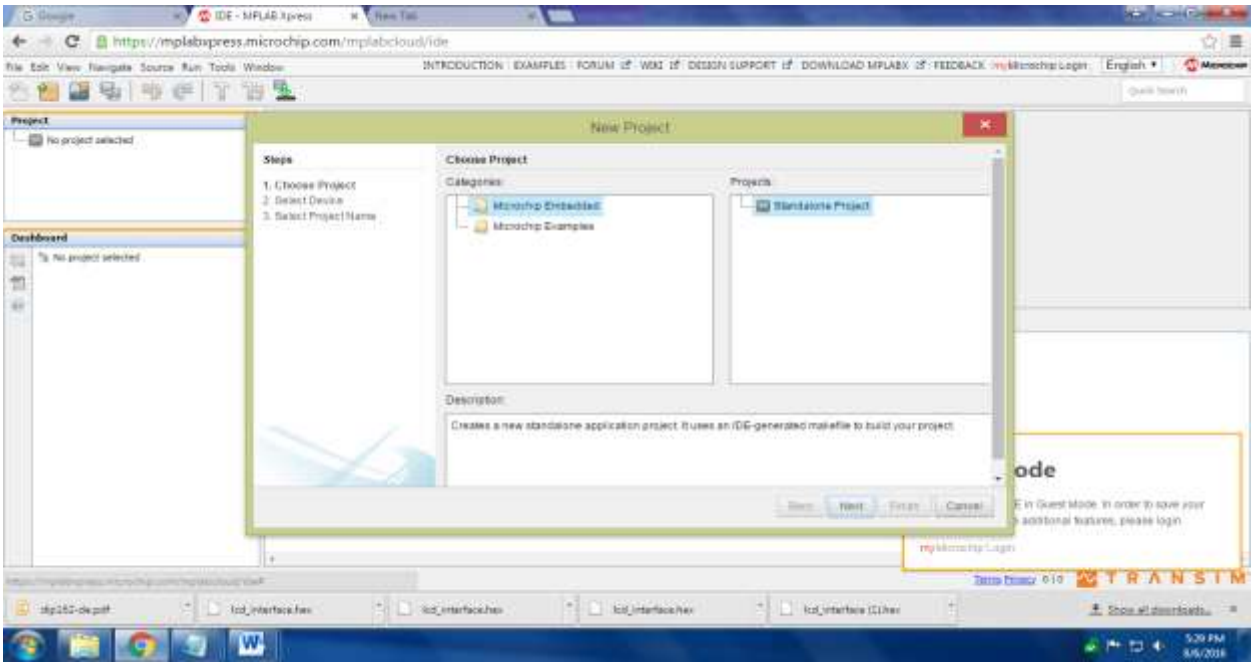

Figure 2 Open new projects

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Step 3: Select device **PIC16F18855**, and click **next.**

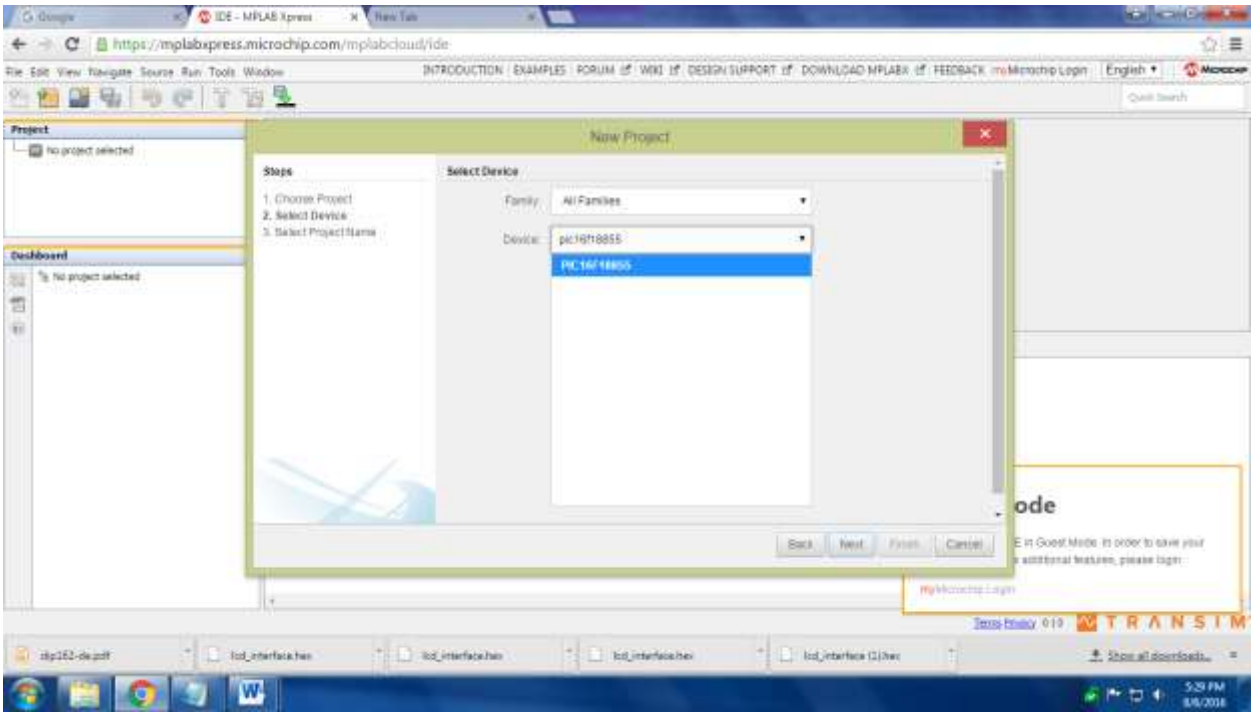

Figure 3 select Device

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Step 4: Then give project name and click finish**.**

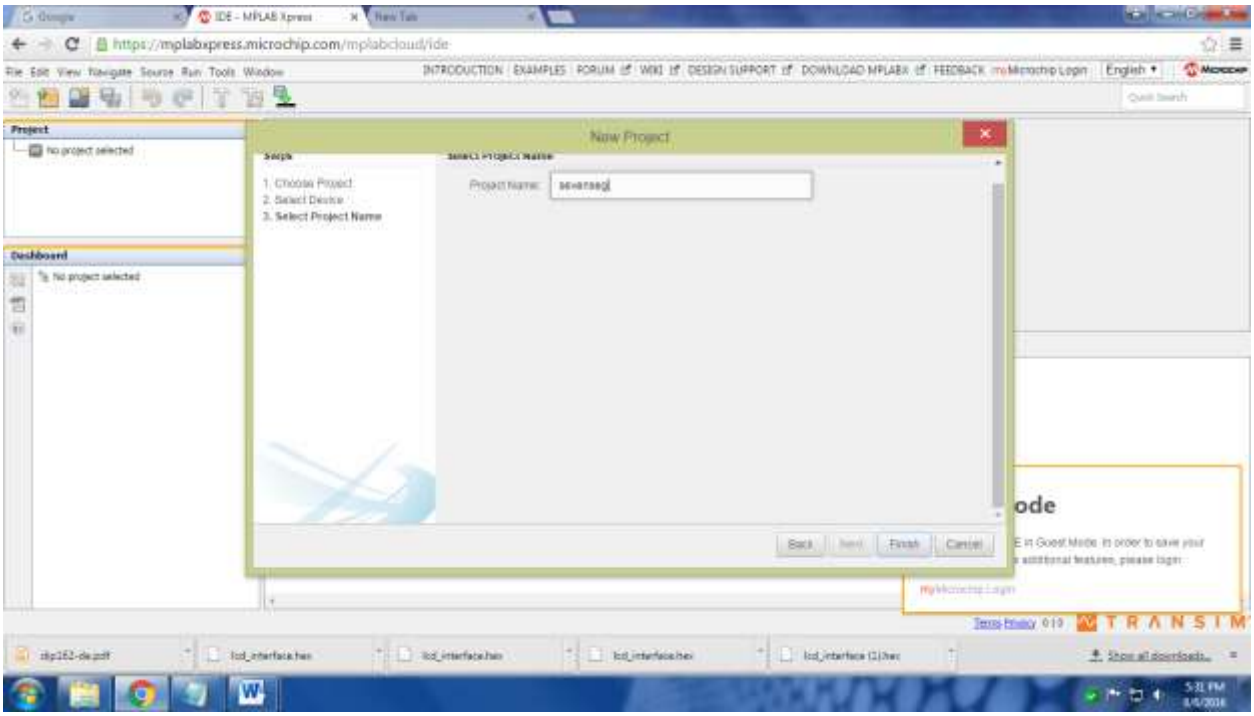

Figure 4 give project name

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Step 5: Now choose MPLAB Xpress code configurator if it's not present in your Device please Download and install it.

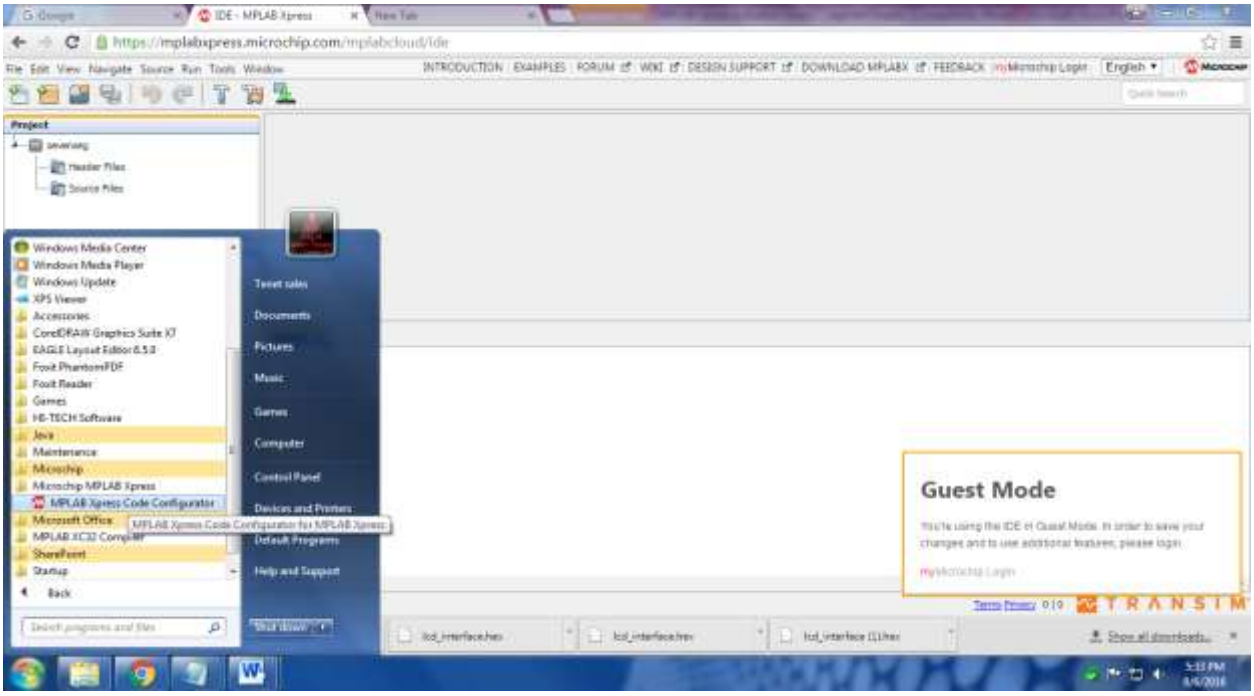

Figure 5 Select MPLAB Xpress code configurator

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Step 6: Now we can see our MPLAB Xpress configuration window and select system module in MPLAB Xpress configuration window .

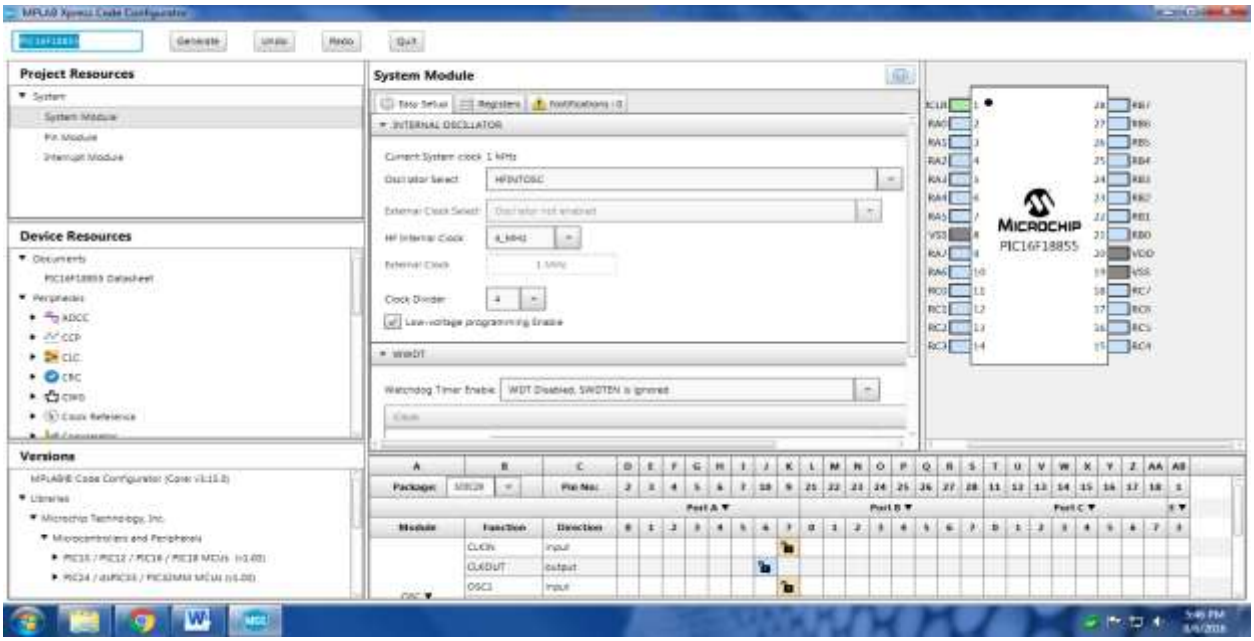

Figure 6 Assign project name

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Step 7: Make oscillator configuration.

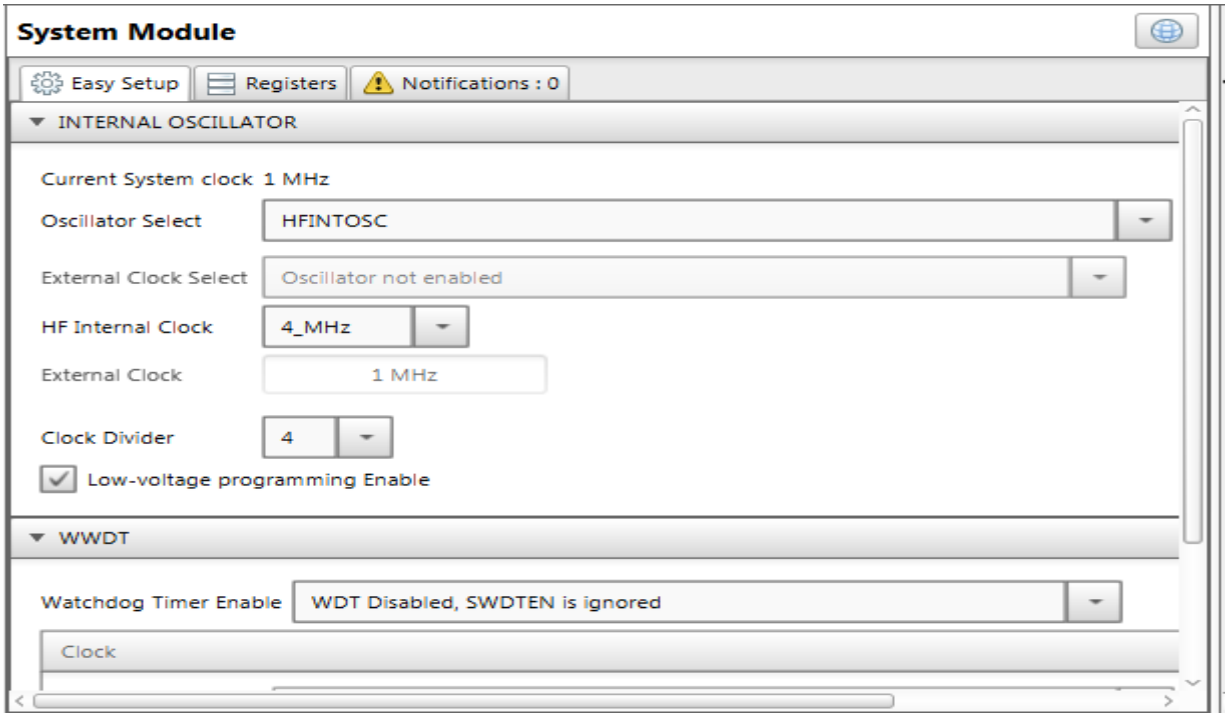

Figure 7 oscillator configuration

Step 8: select pin and deselect Analog in pin module window and select pin input or output.

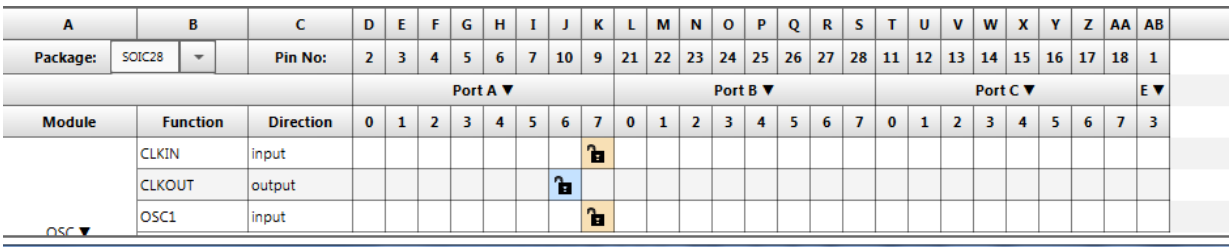

Figure 8 pin selection

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SOURCE CODE:

```
#include "mcc_generated_files/mcc.h"

void main(void)

{

    SYSTEM_Initialize();           // initialize the device

    RA5==0;

    while (1)                      //continues function

    {


        if(RA5==1)

        {

            RA0=1;                 //BUZZER ON

        }

        else

        {

            RA0=0;                //BUZZER OFF

        }

    }

}
```


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Step 10: Go to your MPLAP Xpress IDE Erase all existing code and copy above code past there then make clean and build for Export. if you done this go to download you can see hex file for your project.

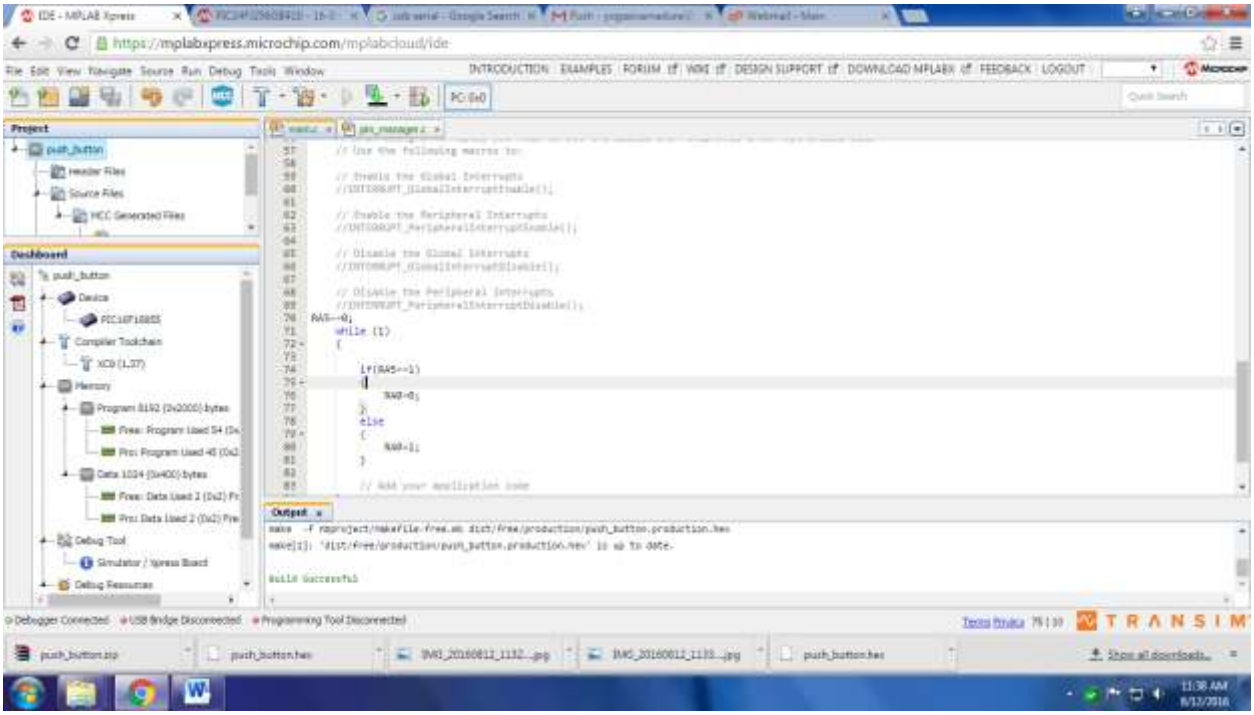

Figure 10 build the project

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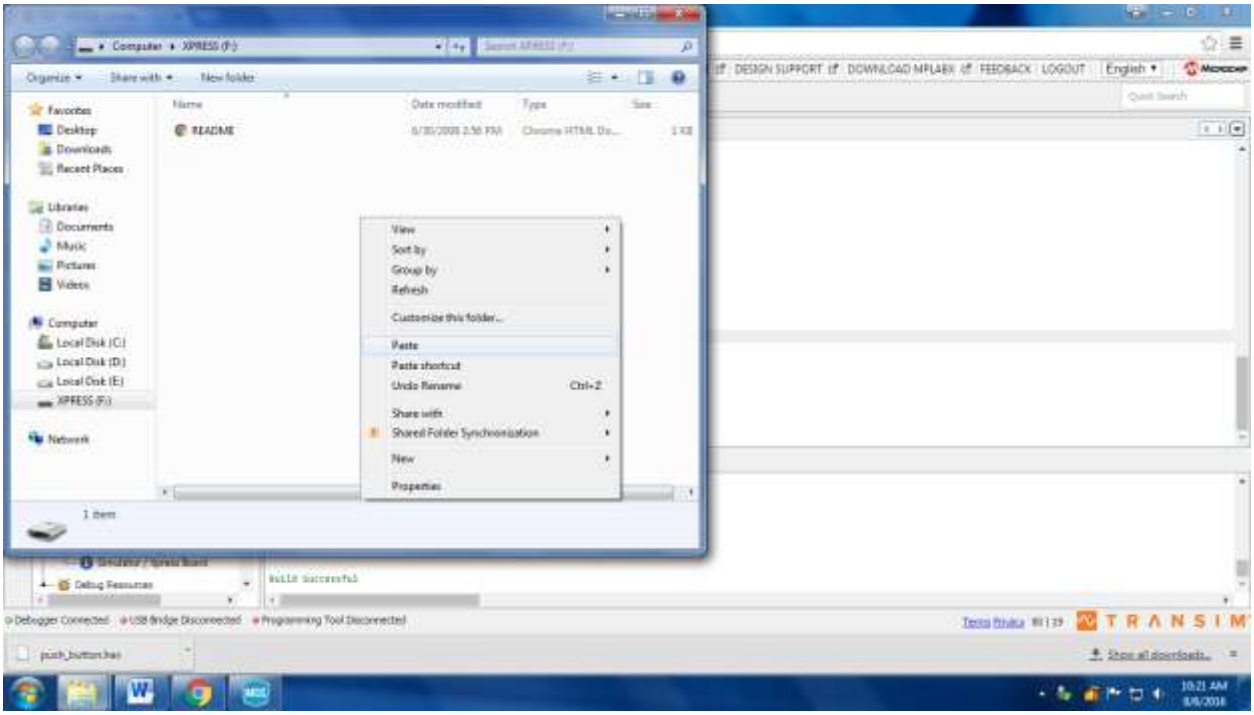
Step 11: Now, if all goes well connect the Micro B cable to PIC16F18855 (MPLAB Xpress demonstration board) and connect it to your computer. If you done everything then you can see your devise. And copy that Hex file to your device. And make hardware connection.



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Output:

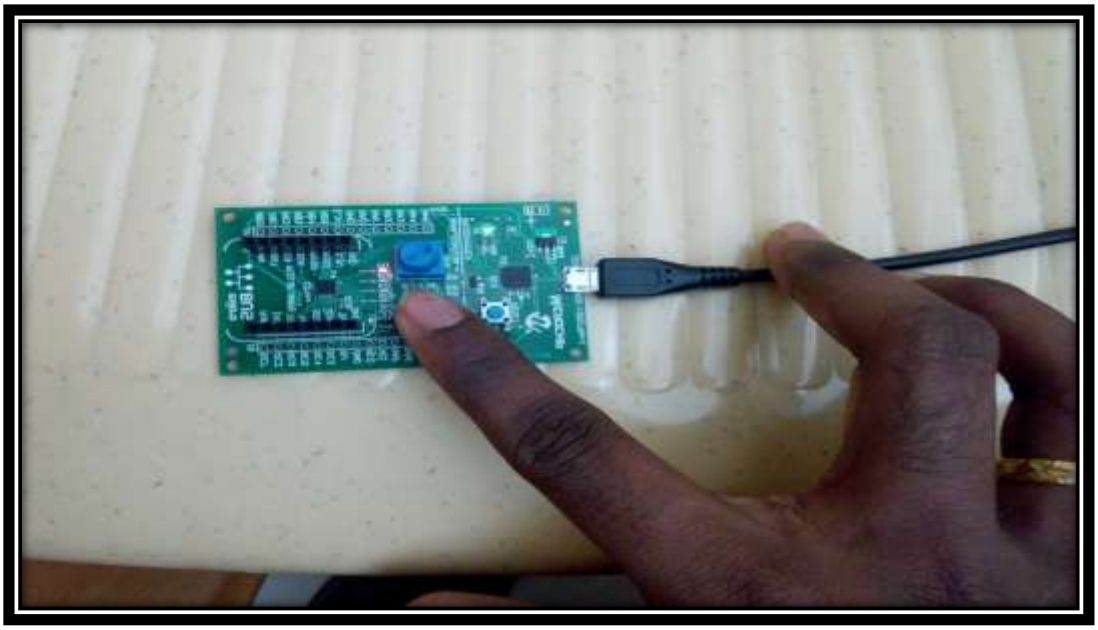

Figure 12 output

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For product link:

http://www.tenettech.com/product/8828/mplab-xpress-development-board

For more information please visit: www.tenettech.com

For technical query please send an e-mail: info@tenettech.com

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