



# USER'S GUIDE

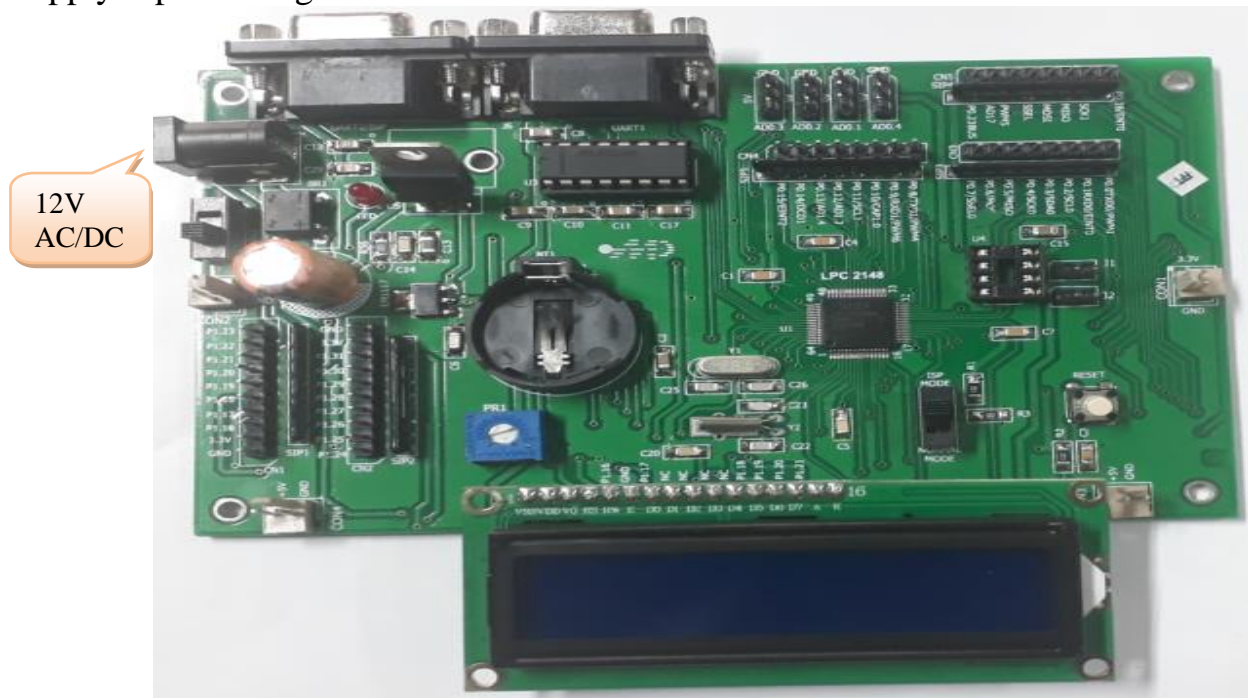
**NSK**  
ELECTRONICS

## LPC2148 PROGRAMMING PROCEDURE

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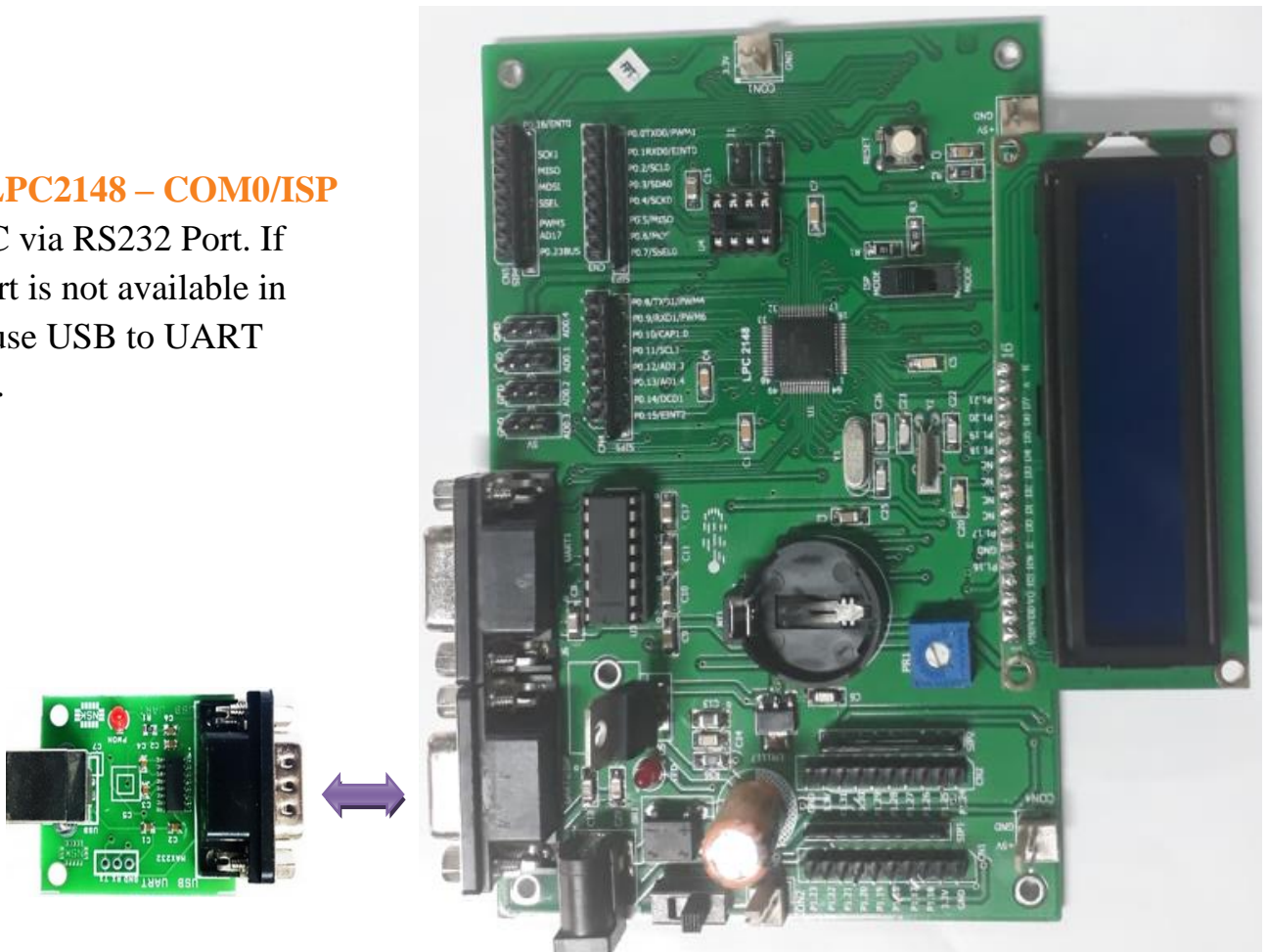
## STEP 1:

Supply Input Voltage **12V AC/DC**.



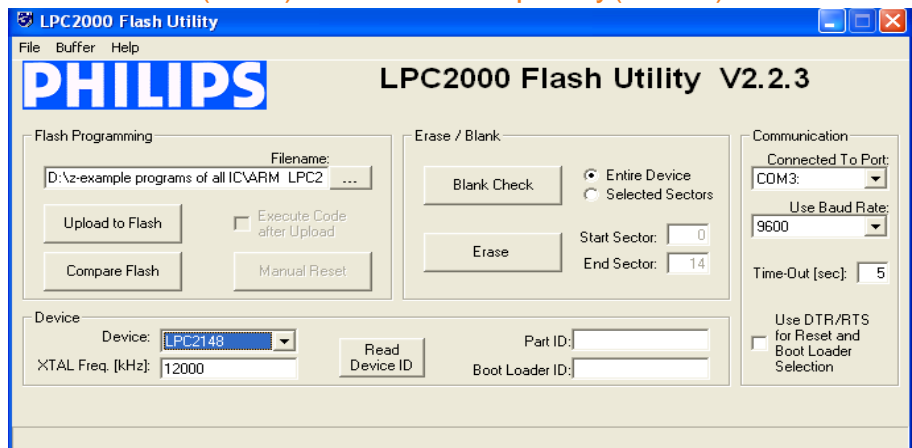
## STEP: 2

Connect **LPC2148 – COM0/ISP Port** to PC via RS232 Port. If RS232 Port is not available in your PC, use USB to UART Converter.



### STEP: 3 In Flash Utility

- Select Correct **COM** port Number, **BAUD RATE(9600)** and **XTAL Frequency(12000)**. **COM** Port can be identified in Device Manager (My Computer→Properties) in PC.
- Do not select Device, Part Id and Bootloader Id, It Will automatically Identify.
- Disable DTR/RTS for Reset and Bootloader Selection.

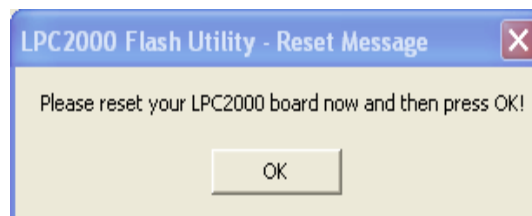


### STEP: 4 How to Enter into ISP mode

- Click **Read Device ID**.

If **p0.14** is pulled low during **RESET**, it will enter into ISP mode, In ISP only we can Flash, Read, and verify hex file. The bootloader uses UART#0 for downloading new program Images (Hex) into the processor FLASH. If the processor samples P0.14 low after reset the bootloader is entered, else the application code is executed.

- It will ask for “Please **Reset Your Lpc2000 Board**”.



- Sometimes if error message like “Cannot **Communicate with Test Board**” Comes



Click **Read Device Id** again It will ask for  
“Please **Reset Your Lpc2000 Board**”.

- Now in LPC 2148 board push toggle switch to **ISP MODE**



- Press **RESET switch** and release

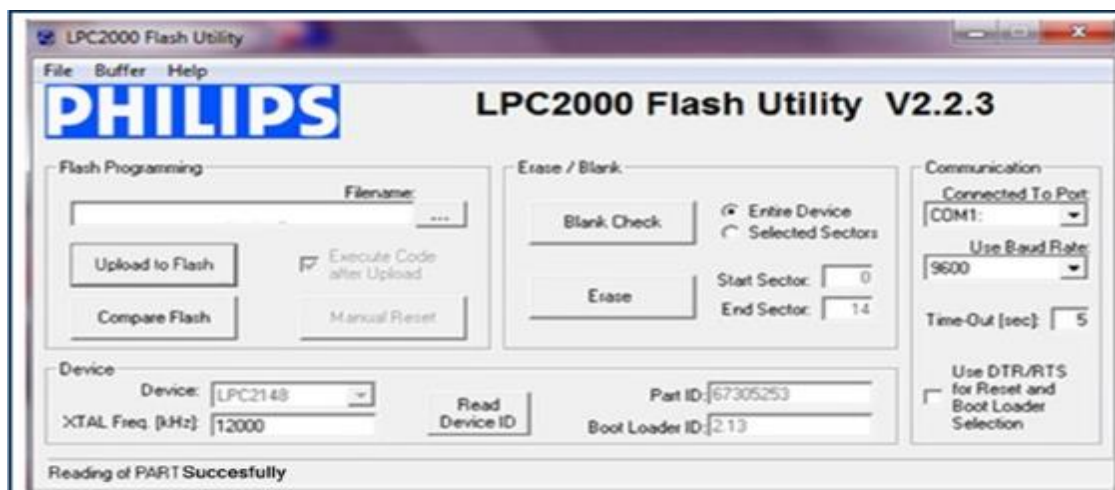




- Now click **OK**

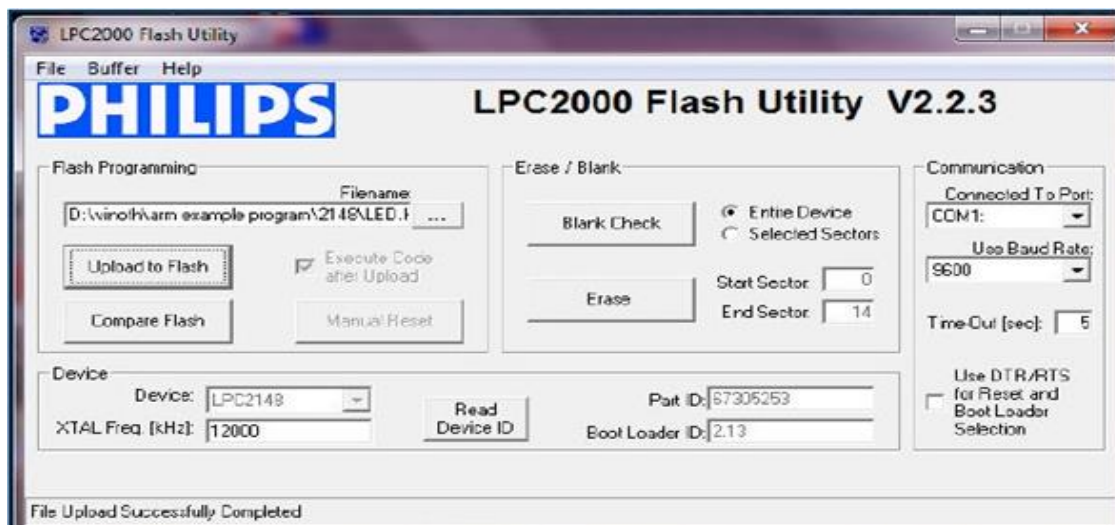


- Device, Part Id and Bootloader Id is **Read Successfully**.



## STEP: 5

Select the **HEX** File and click **Upload** to FLASH.



➤ After Uploading push toggle switch to **NORMAL MODE**  
Press **RESET** Switch for Return the LPC2148 Board into **Application mode (Execution mode)**.

