

ELEMENTZ ENGINEERS GUILD PVT LTD

Embedded Module Manufacturers and Distributors

USBPICPROG

USER GUIDE

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Overview

UsbPicProg is an USB In-circuit Programmer for Microchip PIC processors. PIC18F2550 inside the programmer has the firmware and usb support for programming the PIC processors. The bootloader inside the IC has the ability to update the firmware for making support for new ICs from Microchip.

Features and Applications

Features:

- Support for new ICs by updating Firmware
- Inbuilt USB framework support
- Small size
- Has inbuilt boost circuit for High Voltage programming for MCLR pin.
- No external power required

Module SnapShot

Following figure contains the Snapshot of the UsbPicProg.

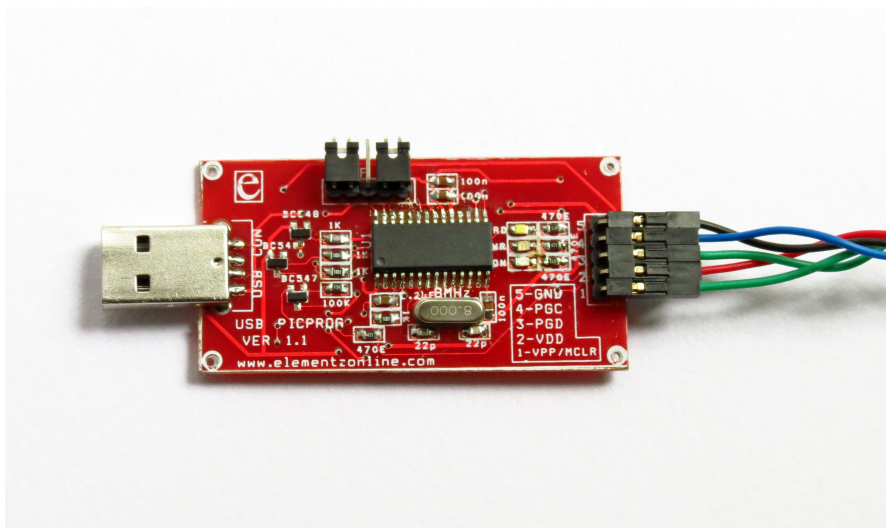


Figure 1: USBPICProg Snapshot

Connection Details

Below sections describe the PIN Details of connectors equipped with UsbPicProg.

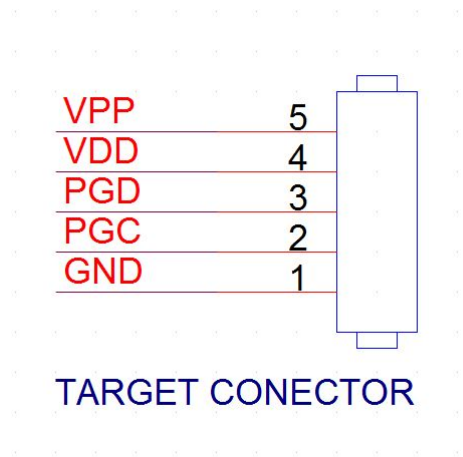


Figure 2: Connecting to Target

Connecting to the USB port

The programmer is equipped with Standard USB A-type male connector which can be either connected to the USB port directly or can be connected by an USB extension cable. No extra hardware or power supply is required. If the target is equipped with power hungry devices, consider providing external power to target separately.

Jumper Settings

Jumper settings as mentioned in this section is mandatory to follow for making the programmer work or for updating the firmware.

As Programmer

Below is the Jumper settings for working UsbPicProg to program PIC ICs.

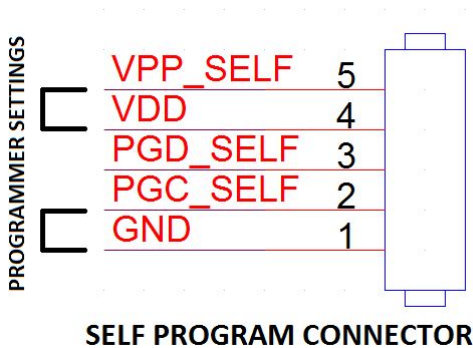


Figure 3: Installing PC Software

To update firmware

Below is the Jumper settings for working UsbPicProg to program PIC ICs.

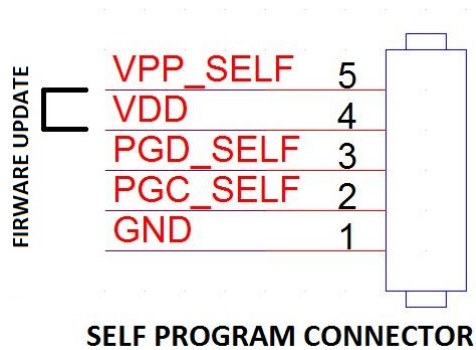


Figure 4: Installing PC Software

Software Details

Installing drivers

STEP1: Install the Windows installer `UsbPicProg-x86-0.6.0.exe`(for 32-bit OS) or `UsbPicProg-amd64-0.6.0.exe`(for 64-bit OS) depending upon your system to its default location as shown below.

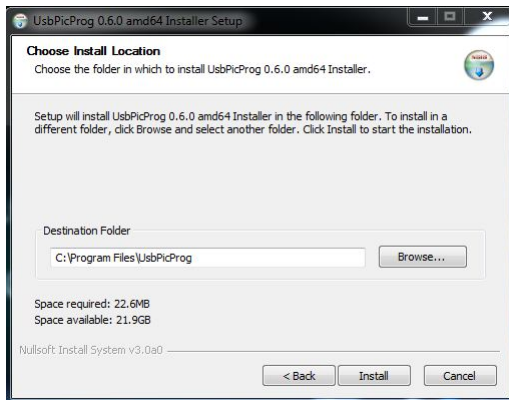


Figure 5: Installing PC Software

Note: If you get an error as shown below then proceed to STEP2: after plugging the UsbPicProg Programmer. Else go to STEP3.

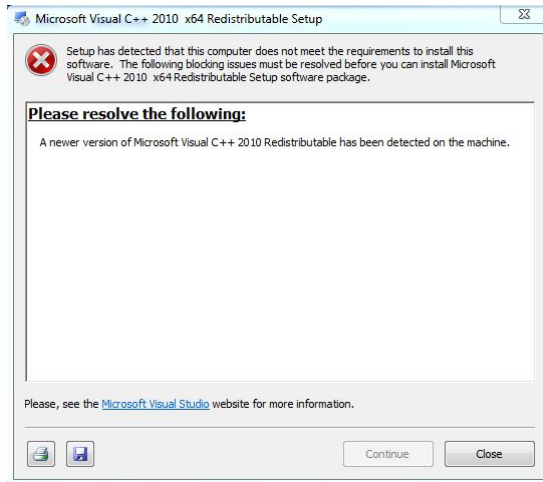


Figure 6: Driver Installation Error

STEP2: Plug in the UsbPicProg programmer. Run the PC software installer "libwdi-zadig-driver-installer"

STEP3: Plug in your UsbPicProg programmer, if it doesn't work right away, or if you are getting a message like "could not load libusb", launch the device manager, find the usbpicprog programmer and choose "re-install driver". Now point to the driver which is located in "C:\Program Files\UsbPicProg\driver".

For making sure that the driver is installed correctly, check the device manager.

To open device manager, Right click **My Computer** → Select **Manage** → **Device Manager** → **Universal Serial Bus Devices** → **UsbPicProg.org**.

Programming PIC ICs

This section describes the procedure for programming PIC ICs using UsbPicProg. Connect the target connector of UsbPicProg to the target board following the pin details described on board.

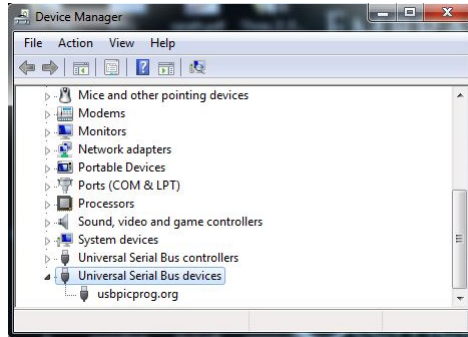


Figure 7: Device Manager Tree

Note: Check Jumper settings mentioned in the previous section before plugging the programmer to the USB port.

Open the UsbPicProg software.

Click **Actions** → **Auto detect** to detect the connected target automatically. You can even choose from the list and skip this step.

Open Hex file for programming from **File** → **Open** and browse for the hex file. Then select **Actions** → **Program**. User has to select **Actions** → **Run Target** to provide power from the programmer.

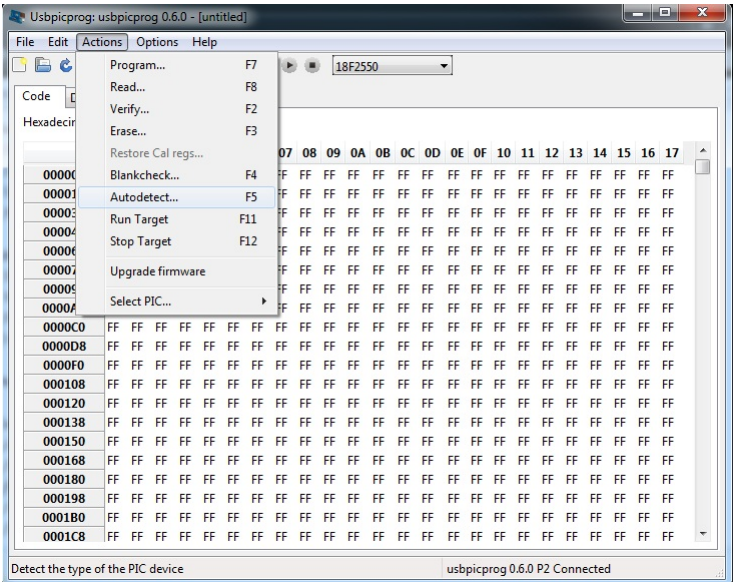


Figure 8: Auto Detect Hardware

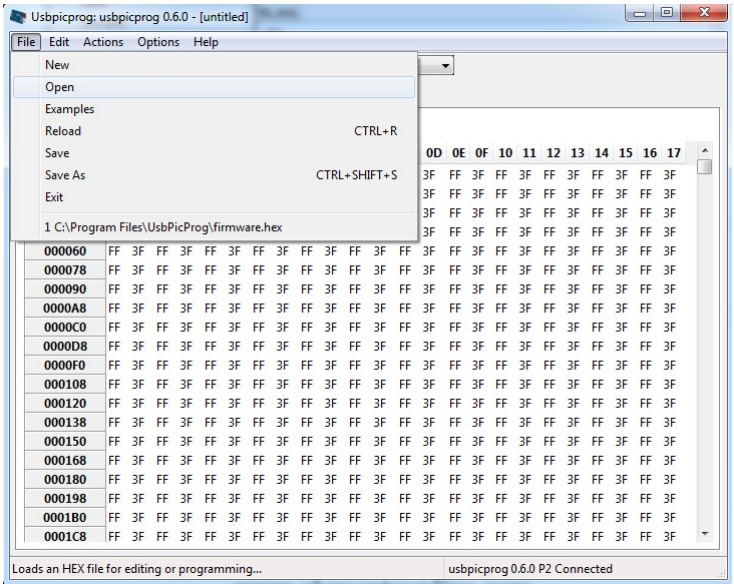


Figure 9: Open Hex File for programming