

These notes are a guide to installing software for and operation of the VexLabs Programmer Module that programs the Radio Shack VEX Micro Controller.

1. Software Installation
 - a. Install the MPLAB IDE software and then the MPLAB C18 Compiler software onto your computer using the supplied CD.
 - b. DO NOT install the IFI Loader from the supplied CD. If you have, please uninstall it.
 - c. Install the latest IFI Loader from the VexLabs website (version 1.0.11 or later) from <http://www.vexlabs.com/vex-robotics-downloads.shtml>.
2. Connecting the VexLabs Programmer Module and verifying communications.
 - a. Plug the female connector of the supplied DB9 cable into the Serial Port of the PC. If your computer does not have a Serial Port, a USB to Serial Adapter may be used, such as the Radio Shack 26-183.
 - b. Plug the male connector of the supplied DB9 cable or purchased USB to Serial adapter into the female DB9 connector of the supplied Programmer Module.
 - c. Attach the supplied 6-wire modular cable to the Programmer Module and to the VEX.
 - d. Open the IFI Loader program.
 - e. Under “PortSettings” select the computer port the cable is connected to (typically COM1 for a serial port).
 - f. Power up the VEX if it is not on.
 - g. (Optional) Select the IFI Loader “Options” menu and “Controller Verification” sub-menu items. A valid response is “Controller verification complete ...” and “VEX” in the bottom of the IFI Loader window.
3. Downloading a program from the PC to the VEX
 - a. Select the “BROWSE...” button in the IFI Loader window.
 - b. Navigate to the hex file to be downloaded, such as Vex_default.hex. Select the “Open” button.
 - c. From the IFI Loader window, select the “DOWNLOAD” button. (After downloading, a terminal window will open up. Depending on the hex file that was downloaded, text may appear in the terminal window)
 - d. If the download fails, try pushing and releasing the Program Button on the Programmer module. The VEX PGRM STATUS LED will begin flashing. Select “DOWNLOAD” again.
 - e. (Optional) You can verify the VEX Micro Controller code versions. Power cycle the VEX. The terminal window will display “IFI>” and “VEX – Master vx, User vy” where x and y are the versions of the master and user code. Other characters may be displayed depending on the hex file downloaded. It is normal for the first couple of characters to be lost or garbled when power cycling an RS-232 interface.