## Programming

# VEX Programming Drivers – Serial Communication

The VEXnet v3.0 and newer firmware allows your PC to communicate using a serial link with VEXnet products. This serial communication link requires a Driver to be installed on your PC. The install process is simple.

**INSERT THIS PAGE** at the **back of the Programming Chapter** in your VEX Inventor's Guide.

### Which VEX Components require the new Driver?

Any Cortex or Joystick that is running Master Code version 3.0 or higher, will require the new Driver installed on your PC before communication can be established between the device and your PC. In addition, if you use a version of the 276-2186 Programming Hardware Kit purchased after January 2012, you will need the serial drivers.

### Will one Driver work with all PCs?

No, but there are only 2 Drivers to choose from depending on your system type (32-bit or 64bit). Install the one that matches your OS.

### Unfortunately, these drivers are not compatible with Linux or Mac OSX.

### Where can I find the Serial Driver?

The new drivers for both the 32-bit and 64-bit versions can be found in a "VEX Programming Driver Installer.zip" file on our VEX Robotics Downloads web page at: <u>http://www.vexrobotics.com/downloads/</u>. These drivers are also being packaged with the installer of the latest version of your programming software.

#### I heard something about a new programming hardware kit?

The version of the Programming Hardware Kit (276-2186) to be released in early 2012 takes advantage of the serial communication protocol. This version of 276-2186 requires the VEX Programming Drivers to be installed.

### What if I have a programming hardware kit from before January 2012?

The programming hardware kits from before January 2012 are not compatible with the new Serial Communication link. You will need to load the Prolific USB drivers included in the VEX Programming Drivers package. There is one driver for Windows XP and one for Windows 7.

### How can I tell if I am running a 32-bit or 64-bit version of Microsoft Windows?

Refer to the guide on the Page 3 for more information.

Limited 90-day Warranty This product is warranted by VEX Robotics, Inc. against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from authorized Innovation First dealers. For complete warranty details and exclusions, check with your dealer.

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For More Information, and additional Parts & Pieces refer to: www.VEXrobotics.com



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## **Programming**

## VEX Programming Drivers – Serial Communication, continued

### Should I connect VEX hardware to my PC before driver installation?

NO. Do not connect the any of the VEX Components to your PC until you have completed the Driver installation.

### How do I install Drivers?

After you have downloaded the "VEX Programming Driver Installer.zip" file from our web site, extract all the files to a known folder. Navigate your Windows Explorer to the known folder and double click on the appropriate \*.exe file that matches your system type (32 or 64 bit). After double clicking on the appropriate \*.exe file, use the steps below to complete the Driver installation:

- Click on Yes to allow changes to your PC if required.
- Click **Next** to continue in the Wizard.
- Click Install to begin the installation in the Wizard.
- Click Install or Continue Anyway to continue the installation in the Windows Security.
- Click **Finish** to exit the installation Wizard.

In general, just follow the on-screen instructions. Click "yes", "install", and "allow" when necessary!

Once everything is installed you'll be ready to use your PC to communicate with a VEXnet device.

The first time you plug a VEXnet device into your PC it will display a "New Hardware Found" message. This is normal. If necessary allow your PC to look for and install drivers for the VEXnet device. Approve your PC to connect to the device. Click "yes", "install", and "allow" when necessary!

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## Programming

## VEX Programming Drivers – Serial Communication, continued

### How can I tell if I am running a 32-bit or 64-bit version of Microsoft Windows?

Use the appropriate steps below depending on your PC's operating system: Windows XP, Windows Vista, or Windows 7:

### Windows XP – Option 1:

- 1. On your desktop, Right-Click on "My Computer" and choose "Properties" If you do
- not have "My Computer on your desktop, skip below to "Windows XP Option 2".
- On the navigation pane, select the "General" tab. The operating system is displayed as follows
  - Note: <Year> is a placeholder for the date your version of Windows was released):
    - For a 64-bit version operating system: "Windows XP Professional x64 Edition
    - Version < Year>" appears under System.
    - "For a 32-bit version operating system: Windows XP Professional Version <Year>" appears under System.

### Windows XP – Option 2:

- 1. Click Start > Run.
- 2. Type "msinfo32.exe" then click OK.
- 3. On the navigation pane, select System Summary.
- 4. Locate **Processor** under Item in the details pane. Take note of the value.
  - If the value that corresponds to Processor starts with x86, the computer is running a 32-bit version of the Windows operating system.
  - If the value that corresponds to Processor starts with ia64 or AMD64, the computer is running a 64-bit version of the Windows operating system.

#### Windows Vista:

- 1. Click on the Windows orb (Start).
  - 2. Type "system" in the Start Search box, and then click System in Programs list.
  - 3. The operating system appears as follows:
    - For a 32-bit version of the operating system: "32-bit Operating System" appears as the System type under System.
    - For a 64-bit version of the operating system: "64-bit Operating System" appears as the System type under System.

### Windows 7:

- 1. Click on the Windows orb (Start).
- 2. Type "system" in the Start Programs and Files field, and then click System in Programs list.
- 3. The operating system appears as follows:
  - For a 32-bit version of the operating system: "32-bit Operating System" appears as the System type under System.
  - For a 64-bit version of the operating system: "64-bit Operating System" appears as the System type under System.

