

This is the Getting Started Guide for VM2 Starter Kit 1.

Kit Contents

As well as this guide, you should have the following in your kit:

- VM2 Breakout Board (5905)
- VM2 Control Computer (5900, supplied fitted to the Breakout Board)
- VM2 Lithium Battery – clock and memory backup (5903, supplied fitted to VM2)
- Serial Lead
- USB to Serial Adaptor – in case your PC has no COM port.
- Power Supply

Connecting it all up

Power to the Application Board comes in via the two-way plug-in screw terminal connector. The kit includes a power supply with pre-wired screw terminal plug. Plug this into the breakout board power connector – it will only fit in one connector. Don't turn the power on just yet.

Connect the board's serial port 1 (JP1) to your PC's COM port.

If you don't have a COM port on your PC then you can use the USB to Serial Adaptor supplied (see the instructions in the USB adaptor package).

Installing VenomIDE on your PC

VenomIDE is the VM2's development toolset. You can download it from our website or request it on a CD from us. VenomIDE is intended for Windows 98, XP and Vista. It may work on other operating systems, but this has not been tested. If you can't use VenomIDE for any reason you can still program the VM2 – see the next section.

1. Download VenomIDE from our website: www.microrobotics.co.uk on to your PC.
2. Install VenomIDE on your PC by opening up the downloaded zip file and then double clicking on the file Setup.exe. Follow the instructions on the screen.
3. Start VenomIDE by double clicking on the VenomIDE icon on your desktop.
4. You may get an error box if your PC doesn't have a COM1 – this is OK.
5. Select the COM port you are using in the menu `Terminal>Settings`.
6. Set the target controller to 'VM2' in the menu `Terminal>Settings>Target` – it may be set correctly already.
7. Set the *Prog Mode* DIP switch on the Breakout Board to ON. The other switches should be OFF.
8. Turn on the power. You should see the Venom2 startup message on your terminal screen:

```
VM2 Control Computer running Venom2 at 72MHz
Version 2011 02 10
Copyright 2008-2011 Micro-Robotics Ltd.
Clear RAM?
```

While the controller is waiting at the prompt, its LED will turn on as an indication that it is powered but in program mode, and so not running an application. [If you have left the VM2 in RUN mode, the LED will flash once a second, and you will see the "-->" prompt in the terminal window]

If you don't get any message at all, then switch the power off and check the power connection, serial connection, DIP switches, and that the VM2 module is plugged into the Breakout Board correctly. Check the IDE terminal configuration in the menu `Terminal>Settings`: it should be set to 115,200 baud, Hardware handshaking, and the COM port setting should be the one the VM2 is physically connected to.

Tutorial

You should now open the Venom Tutorial: use the menu `Help>Venom Tutorial`.

Get the latest version of Venom2

Because we are frequently updating Venom2 with bug fixes and new features you are recommended to download the latest version of the Venom2 Language from our website www.microrobotics.co.uk. You can program this into the VM2 using the menu `File>Download Venom2 Language...`

Not using VenomIDE

If you can't use VenomIDE for any reason you can still program the VM2 using any terminal emulator and text editor – for example HyperTerminal and Notepad.

Set up the terminal emulator communications protocol as follows:

Baud Rate	115,200
Data Bits	8
Stop Bits	1
Parity	None
Handshaking	Hardware

Set the *Prog Mode* DIP switch on the Breakout Board to ON. The other switches should be off. Turn the power supply on. You should see the VM2 startup message on your terminal screen:

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While the controller is waiting at the prompt, its LED will turn on as an indication that it is powered but in program mode, and so not running an application. [If you have left the VM2 in RUN mode, the LED will flash once a second, and you will see the "-->" prompt in the terminal window]

If you don't get any message at all, then switch the power off and check the power connection, serial connection, DIP switches, and your terminal configuration.

You should now download and read the *Venom Tutorial* from our website www.microrobotics.co.uk.

You will also need to download the reference manual: The *Venom2 Help File*.

Get the latest version of Venom2

Because we are frequently updating Venom2 with bug fixes and new features you are recommended to update your VM2 to the latest version of the Venom2 Language (available from our website www.microrobotics.co.uk). However, currently the only way for users to program this file into the VM2 is using Windows tools – either VenomIDE or ST Micro's flash loader tool for STM32. Please contact us for other possibilities.