

Installation instructions for Raspberry Pi workshop

System Requirements and Setup

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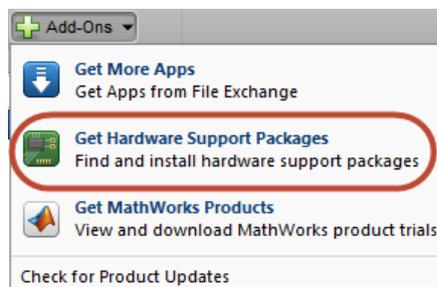
- Operating system: Microsoft Windows or Mac OS X. All material tested under Windows 7 64-bit.
- **MATLAB and Simulink**, at Release R2013a or newer (Windows) or Release R2015a or newer (Mac OS X)
 - **MATLAB and Simulink Student Version / MATLAB and Simulink Student Suite** also supported
- If using 64-bit MATLAB before release MATLAB R2014a it will be necessary to install a compatible C compiler, see below for details

Download, Installation, Connection and Testing

Step 1: Automated Download and Install of the Raspberry Pi Support from Simulink

Brief installation notes are provided below. More detailed installation instructions, including screen shots can be found in Help > Simulink > Target Hardware > Raspberry Pi > Install Support for Raspberry Pi Hardware

1. On the MATLAB Toolstrip click **Add-Ons** and select **Get Hardware Support Packages**



- a. Note: You can also type `targetinstaller` at the MATLAB prompt.
2. On Windows 7 platforms, you may be prompted to allow MATLAB to restart in **Administrator Mode** in order to permit installation of new software. Click **OK**.
 3. On the Install or Update page of the target installer, select '**Internet (recommended)**', then click Next
 4. On the Select Target page, select the **Simulink Raspberry Pi checkbox**, then click Next
 5. The following page lists the third party software that will be installed. Click **Install**.
 6. At the Installation Complete page (which appears after a few minutes), select **Close** to exit installation. [The screen also gives the option to continue to update the firmware on the Raspberry Pi, but this is not necessary if the Raspberry Pi already has updated firmware.]

Step 2: Install and 'Select' a C Mex Compiler for MATLAB and Simulink

Simulink requires a C compiler in order to compile auto-generated C-code, that would be downloaded on the Raspberry Pi. This compiler must be installed and 'selected' prior to using Support Package for Raspberry Pi Hardware.

1. Check whether you are running the 32-bit (PCWIN) or 64-bit (PCWIN64, MAC64) version of MATLAB by typing **computer** at the MATLAB prompt.
2. 32-bit Versions of MATLAB ship with a C mex compiler, but the installed compiler must also be 'selected'. Type **mex -setup** at the MATLAB prompt and following the on-screen prompts to do this.
3. 64-bit versions of MATLAB do not ship with a C compiler. Download and install a [supported compiler](#). If using the free Microsoft SDK, first install the .NET Framework 4.0, *then* install the Microsoft SDK. Once installed, the compiler must also be 'selected' as described in Step 2 above.