**BEST Simulink Workshop using Arduino miniQ Robot**

Installation Instructions

To participate in the BEST Simulink Workshop 2017, you will need to install the following:

* MATLAB and Simulink
* MATLAB and Simulink Support Packages for Arduino
* miniQ Robot Library

**IMPORTANT:**

* In the instructions below, use the license number and activation key sent to you by email by [studentcompetitions@mathworks.com](mailto:studentcompetitions@mathworks.com)
* To install the VEX Support Package for the BEST Robotics competition, follow the instructions sent to you by email by [studentcompetitions@mathworks.com](mailto:studentcompetitions@mathworks.com)
* Obtain administrative privileges for your machine (Windows and Mac) to download and install the software
* An internet connection will be required during the installation process
* Use the same license to install on multiple computers
* Supported on both Windows or a Mac platforms
* If you need any assistance with the installation process or with using Simulink for workshop, please contact us at [bestrobotics@mathworks.com](mailto:bestrobotics@mathworks.com)

To install MATLAB and Simulink you need to:

**1. Associate your MathWorks account with this license  
2. Download and Install the software  
3. Activate the software**

In addition, you need to:

**4. Install the MATLAB and Simulink Support Packages for Arduino**

**5. Install the miniQ Robot library**

**Installation Steps:**

**1. Associate your MathWorks account with this license**  
  
If you have not yet created a MathWorks account, you can do so here: <https://www.mathworks.com/accesslogin/createProfile.do>  
  
Once you have a MathWorks account, you need to associate it with a license. Your activation key is included in this email and is required to complete the association process. Instructions for associating with a license are available here: <http://www.mathworks.com/matlabcentral/answers/102871>

**2. Download and Install the software** (takes approx. 40 mins. to complete)  
  
**For system admins:** To perform a silent installation on multiple computers simultaneously, follow the instructions here: <https://www.mathworks.com/help/install/ug/install-noninteractively-silent-installation.html>  
  
Once you are associated with a license you need to download the software. Download instructions are available here: <http://www.mathworks.com/matlabcentral/answers/98268>  
  
The installation will begin as soon as the download is complete.

**3. Activate the Software**  
  
**For system admins:** To perform a silent activation on multiple computers simultaneously, contact us at [support@mathworks.com](mailto:support@mathworks.com) for the instructions.  
  
Once the software is installed MATLAB will attempt to activate itself. You will be required to enter your MathWorks account credentials again for activation. If the software does not automatically attempt to activate, you will need to launch the activation client: <https://www.mathworks.com/matlabcentral/answers/259627-how-do-i-activate-matlab-without-an-internet-connection>  
  
In some setups, such as one where a firewall is in place or a proxy is filtering all network activity, you may need to activate MATLAB manually. Instructions for manual activation can be found here: <http://www.mathworks.com/matlabcentral/answers/105854>

**4. Install the MATLAB and Simulink** **Support Packages for Arduino**

To do this,

1. Go to <https://www.mathworks.com/hardware-support/arduino-matlab.html> (type out the URL if the link doesn’t work)
2. Click on the “Get Support Package” button. This will download the .mlpkginstall file.
3. Go to the folder containing this file and open it using the latest MATLAB application that you have installed (R2017a release). This should launch MATLAB and bring up the Installing Support Packages wizard.
4. In the wizard, login to your MathWorks account when prompted and accept the license agreement.
5. Follow the prompts to completed downloading and installing the support package. This will take about 5-10 mins depending on your internet connection.

NOTE: Make sure to stick around to confirm any system admin requests from the installer. If not, the installer will not proceed.

1. REPEAT Steps A through E for installing the Simulink Support Package. Get the installer from <https://www.mathworks.com/hardware-support/arduino-simulink.html> (type out the URL if the link doesn’t work)

**5. Install the miniQ Robot library**

To do this,

1. **Download the installer** .zip file from <https://drive.google.com/open?id=0B-j70OJV3tasV2tSd0cydmhBbUE> (type out the URL if the link doesn’t work)
2. You will use this file to install the miniQ robot library **during the workshop**.

**Additional resources:**

* **Getting Started with MATLAB and Simulink for VEX Robotics** Courseware containing detailed lesson plans and companion videos for instructors can also be found here: <https://www.mathworks.com/academia/highschool/courseware/getting-started-with-matlab-and-simulink-for-vex-robotics.html>
* **MathWorks’ Support for BEST Robotics:** <http://www.mathworks.com/academia/student-competitions/best>