

Quick Start Guide: QBot Platform

STEP 1 Software Prerequisites

The QLab virtual QBot Platform is compatible with Windows 10 (64-bit) or later and requires MATLAB & Simulink 2023a or later. Visit the virtual QBot Platform product page at www.quanser.com for the latest software support and visit the Quanser Interactive Labs for MATLAB page on MATLAB Central for the latest software requirements.

STEP 2 Register on Quanser Academic Portal

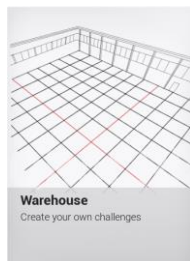
Visit the Quanser Academic Portal at portal.quanser.com/Accounts/Register. Follow the on-screen instructions to register and activate your account.

STEP 3 Running the Quick Start Example

The steps below outline the instructions to run the Quick Start Example for MATLAB®/Simulink®:

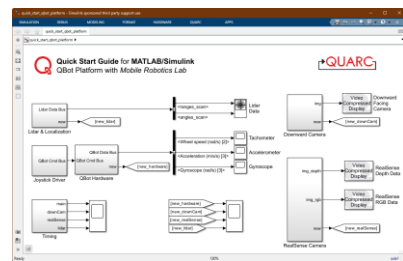
A

Launch Quanser Interactive Labs and login. Browse to the QBot Platform device and launch the Warehouse space.



B

Launch MATLAB R2023a or later. Browse to the Quick Start directory and double-click on the **quick_start_qbot_platform.slx** file.



C

Launching the Simulink model configures your Warehouse workspace in QLab.

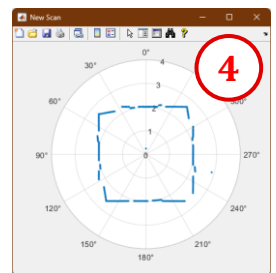
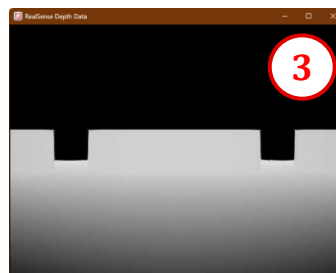
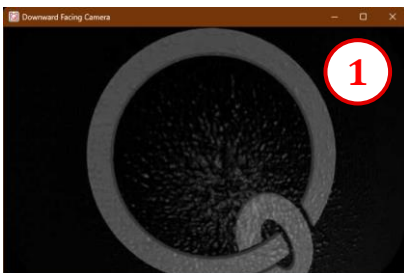


D

Run the Simulink model using the Run button in the Simulation Tab.

E

Use the Space bar on your keyboard to Arm the robot. Use the I and K keys to drive the robot forwards/backwards. Use the A and D keys to steer. To reset speeds, let the Space key go. Monitor the live Downward camera (1), RealSense RGB (2), RealSense Depth (3) and Lidar (4) feeds as you drive the robot.



F

Stop the quick start application when done by clicking on the Stop button in the Simulink model. Click on the "Exit" button in the top-right corner in Quanser Interactive Lab to stop the virtual environment.

TROUBLESHOOTING

Common issues and possible solutions

QLabs workspace does not set up correctly or is missing objects (walls, map etc.). or a caution symbol appears in QLABs.



The **caution symbol** should **disappear** when you **launch** the **quick start** model.

If it does not, or your workspace isn't being populated with objects (walls, maps, QBot etc.), ensure that you have a **valid license** for using the **Virtual QBot Platform**. Close and **re-launch** the **quick start** application.

Alternatively, try running the **qlabs_setup.m** script manually.

The QBot Platform **LEDs** remain white when running the quick start.

Validate that you do not get any errors when launching the quick start application.

Ensure that your quick start application is running.

Try **restarting** your laptop/PC. If the issue persists, contact **tech**⁺.

The Virtual QBot Platform **LED** is blue but the robot doesn't drive.

Once the LEDs are blue, **arm** using your keyboard **Space key**.

The Virtual QBot LEDs should turn **green**. If this is not the case, try **restarting** your laptop/PC.

If the issue persists, contact **tech**⁺.

LEARN MORE

To browse and download the latest Quanser resources visit www.quanser.com/courseware or call +1-905-940-3575

STILL NEED HELP ⁺ For further assistance from a Quanser engineer, contact us at tech@quanser.com

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