

## Guides and Resources: Basic IO - QBot 3

# Cameras

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This document will summarize how to read data from the QBot 3's Intel Realsense RGB-D camera.

# Reading from the Cameras

**Note:** Ensure that your QBot 3 is powered ON and that a connection has been established to it. Follow the steps under **Charging Vehicle Batteries** and **Communicating with the QBot 3** in the **Research Studio Setup Guide**.

**Note:** Ensure that you have read and understood all the safety procedures and guidelines regarding charging Lithium Polymer batteries as well as guidelines on using the QBot 3 in a safe manner outlined in the **Research Studio Setup Guide**. If you have any concerns or questions, please contact Quanser technical support (tech@quanser.com).

**Note:** Safety eye glasses should always be worn, even outside the net.

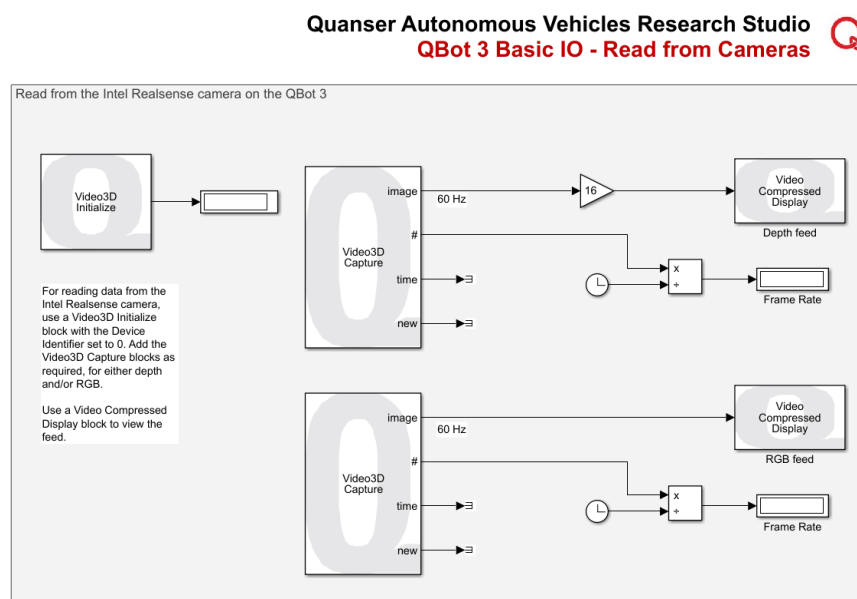


Figure 1: Read\_Cameras.slx model Under the **Guides and Resources > Basic IO > QBot 3 > Software** folder, open **Read\_Cameras.mdl** (Figure 1)

**Note:** For the latest documentation and controllers, please visit **Autonomous Vehicles Research Studio Resources**.

**Autonomous Vehicles Research Studio Resources** weblink:  
<https://www.quanser.com/products/autonomous-vehicles-research-studio/>

2. Under Model Configuration Settings, enter the correct QDrone hostname.

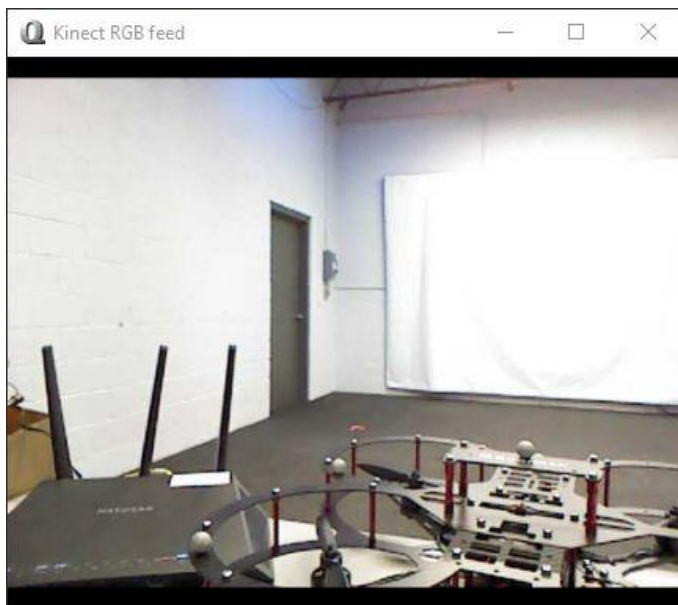
**Note:** See the **QBot 3 IO Check** section in the **Research Studio Setup Guide** for more information.

3. Build the model (QUARC menu > Build).
4. Start the model (QUARC menu > Start).
5. The QBot 3 will emit a sequence of beeps, which signifies that the model has started running.

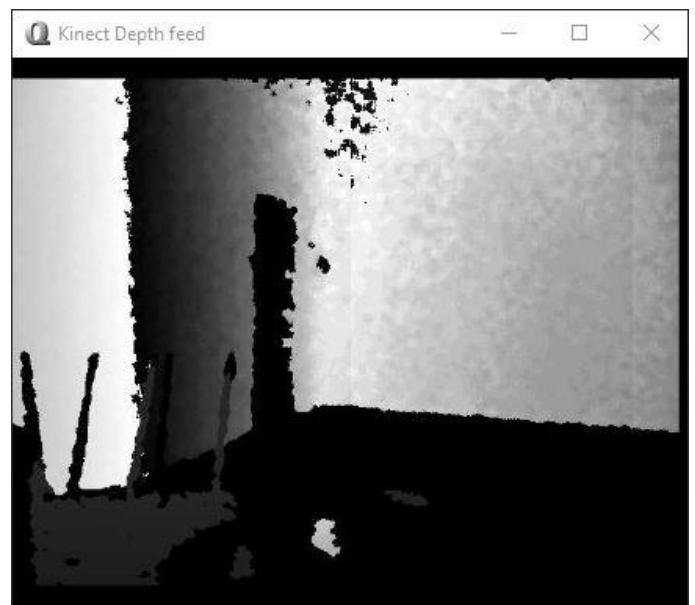
6. Ensure that safety glasses are worn. Enter the workspace and move the QBot 3. The **RGB feed** display (Figure 3a) should show the camera feed from the Intel Realsense on the QBot 3 (Figure 2). The **Depth feed** display (Figure 3b) should show the camera feed from the Intel Realsense on the QBot 2.



Figure 2: Intel Realsense Camera on the QBot 3



a. RGB image



b. Depth image

Figure 3: Camera feed from the QBot 3

7. Stop the model.

This completes a tutorial on how to capture images/videos from the QDrone. More information on configuring the Video Capture and Video Display blocks can be found under [Guides and Resources > Concepts](#).