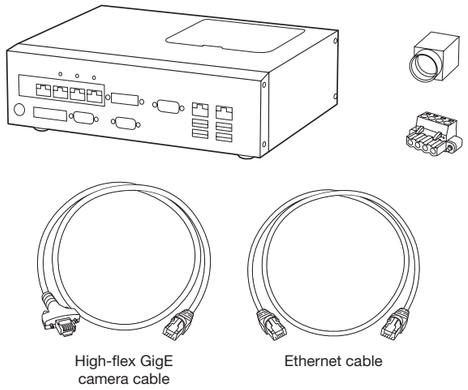
Vision Guide CV2-H/-S
Setup Guide

IMPORTANT: Before using this product, make sure you read these instructions, and the safety instructions and guidelines in the online *Epson® Vision Guide Hardware Manual*.

The illustrations show the CV2-S but the steps are the same for the CV2-H, unless otherwise specified.

1 Unpack



High-flex GigE camera cable

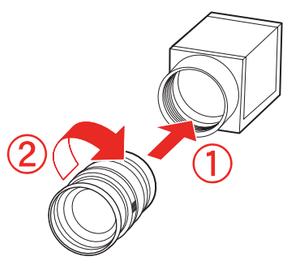
Ethernet cable

Note: Your setup may vary and not all items may be shown above. A 24V power source (not pictured) and any lenses (not pictured) for the camera(s) in your system are sold separately and required to set up your Vision Guide system.

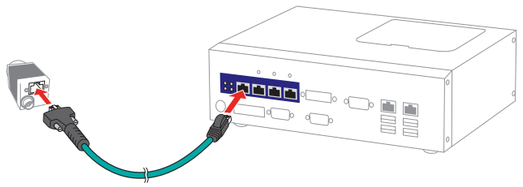
2 Connect the hardware

1. Turn on your robot controller, if necessary.
2. Make sure your computer is connected to your robot controller.

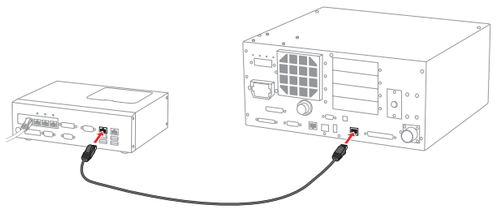
   Note: See the *Epson RC+ 7.0 User's Guide* for details on connecting your computer to the CV2 unit.
3. Install your camera lens (not included) on the camera.



4. Connect the high-flex GigE camera cable to the camera and to the **CH1** port on the CV2 unit.

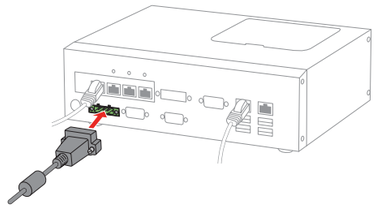


5. Connect the Ethernet cable to the **LAN1** port on the CV2 unit and to the **LAN** port on your robot controller.

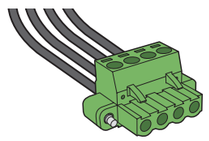


Note: If CV2 unit is connected to PC via Ethernet cable, see online *Epson Vision Guide Hardware Manual* for details on how to configure using a hub.

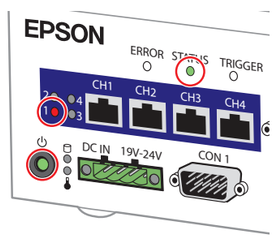
6. Connect your power source to the **DC IN** port on the CV2 unit. The CV2 unit powers on. If the CV2 unit does not turn on, press the ⏻ power button.



Note: If you are installing your own 24V power source (not included), wire it to the 24V power connector included with the CV2 unit. Be sure to use AWG14–AWG24 wires. For wiring details, see the online *Epson Vision Guide Hardware Manual*.



7. Check the lights for proper function. The ⏻ power and PoE 1 lights should be on and the **STATUS** light should be flashing.

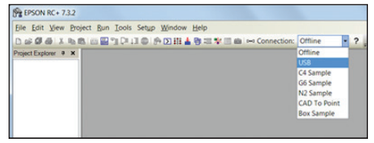


3 Test the system

Before testing the Vision Guide system, make sure the Epson RC+ 7.0 software is installed on your computer.

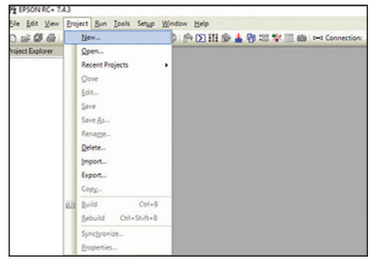
Note: See "Installing the software" on the next page for instructions.

1. On your computer, double-click the **EPSON RC+ 7.0** icon on your Windows® desktop to start the Epson RC+ 7.0 software.
2. In the **Connection** list, select **USB**.

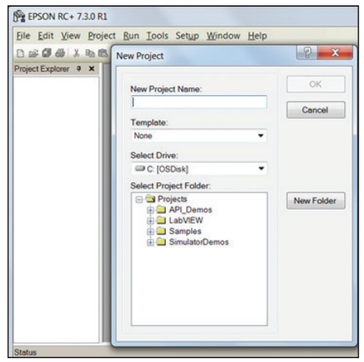


The robot controller's **PROGRAM** light starts flashing.

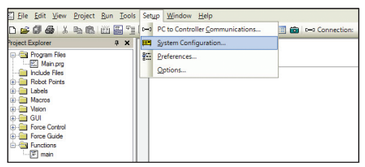
3. Open the **Project** menu and select **New** to create a test project.



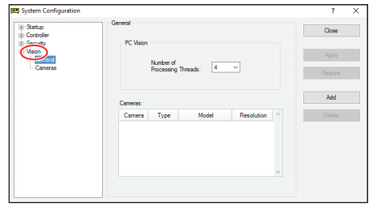
4. Enter a test project name and click **OK**.



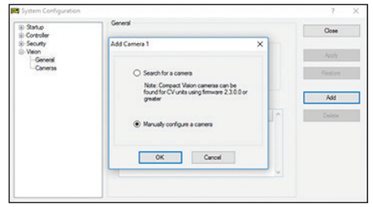
5. Open the **Setup** menu and select **System Configuration**.



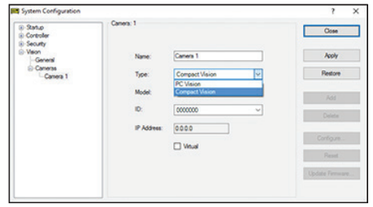
6. Expand **Vision** in the menu tree, click **General**, and click **Add**.



7. Select **Manually configure a camera** and click **OK**.

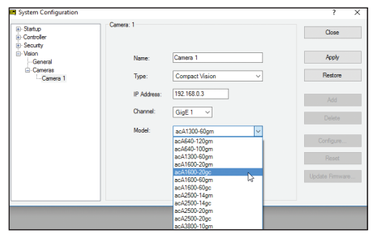


8. Select **Compact Vision** from the **Type** drop-down list.



9. Enter **192.168.0.3** in the **IP Address** field.

10. Make sure **GigE 1** is selected as the **Channel** setting.
11. Check the camera's label for the model number and select it from the **Model** drop-down list.



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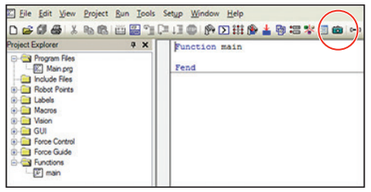
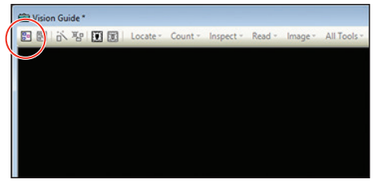
12 Click **Apply** then click **Close**.

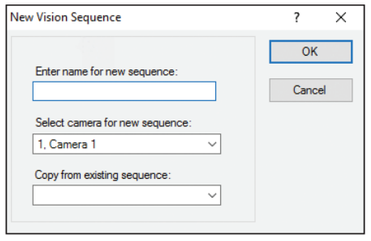
13 Click the vision icon in the toolbar to launch the Vision Guide environment.



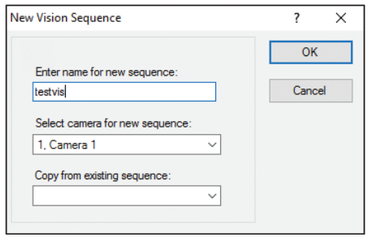
14 Click the new sequence icon at the top of the Vision Guide screen.



15 Enter a name for the new sequence in the first field and make sure **Camera 1** is selected.



16 Click **OK**. A live feed from the camera is shown on the screen.



The Vision Guide system is now ready to program and use. See the online *Epson Vision Guide 7.0 Software Manual* to get started with vision development.

Installing the software (Windows only)

1 Insert the Epson RC+ 7.0 DVD into a DVD drive on the computer you will use to program the robot.

Note: You can download manuals for your product from the Epson website. Visit **www.epsonrobots.com/product-manuals** and search for your product. If you need to download the Epson RC+ 7.0 software, send an email request to **applications@robots.epson.com** to receive a download link.

2 Follow the on-screen instructions to install the software.

3 Double-click the **EPSON RC+ 7.0** icon on your desktop to start the Epson RC+ 7.0 software.

See the online *Epson RC+ 7.0 User's Guide* for details on installing and using the Epson RC+ 7.0 software.

Any problems?

When testing the Vision Guide environment, there is no live feed showing from the camera (screen is dark).

- Make sure the lens cap is removed from the lens.
- Try adjusting the iris on the lens.
- Make sure the **Virtual** setting has not been selected in the camera settings. In the Epson RC+ 7.0 software, open the **Setup** menu and click **System Configuration**. Expand **Vision** in the menu tree then expand **Cameras**. Click on **Camera 1**. If the **Virtual** setting is selected, deselect the box, then continue from step 12 of "Test the system."
- Remove the lens and point the camera at a light source. If the screen shows a bright image, there may be an issue with the lens. If the screen remains dark after removing the lens, contact Epson.
- Reset the system from the software. In the Epson RC+ 7.0 software, open the **Setup** menu and click **System Configuration**. Expand **Vision** in the menu tree and click **Cameras**. Click **Reset**, then click **Yes**. If the screen remains dark, contact Epson.

I get a connection or communication error message.

- Make sure your cable connections are correct and secure.
- Check the camera configuration settings in the software.
- Reset the system from the software. In the Epson RC+ 7.0 software, open the **Setup** menu and click **System Configuration**. Expand **Vision** in the menu tree and click **Cameras**. Click **Reset**, then click **Yes**. If the error messages persist, contact Epson.

Where to get help

For technical support, do one of the following:

- Visit **www.epsonrobots.com/customer-service** anytime.
- Call 1-866-ROBOTS1 (U.S. only, toll-free) or 1-562-290-5900 (U.S. and elsewhere, toll or long distance charges may apply), 6 AM to 4:30 PM, Pacific Time, Monday through Friday.

Training

To help you get the most from your Epson product, Epson offers programming, maintenance, and robotics vision guide classes. Visit **www.epsonrobots.com/training** for more information.

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