

COBOTTA Replacement Manual

****Attention****

Read this resource material carefully and in its entirety before use, to ensure it is understood and used properly. Failure to properly follow the instructions in the resource materials DPAM provides may result in damage to your equipment. As a result, by using the resource materials, you are assuming the risks associated with modifying your equipment. DENSO holds no liability, implied or otherwise, for damage, injury or any legal responsibility incurred, directly or indirectly from the use of the resource materials, including any loss of data or damage to property which may occur by your use of the resource materials. The use of the resource materials are not recommended unless you have technical knowledge and functional experience with the equipment and related software. DENSO is unable to provide support, remote or otherwise, for the information included in the resource material, nor for the ancillary topics relating to the information included in the resource materials. Therefore, if you are not fully comfortable with it, we strongly recommend that you send your unit to one of our Regional Support Centers for repair. The information contained in the resource materials are subject to change at the sole discretion of DPAM.

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1.1 Overview of Replacing the COBOTTA Assembly

Receiving project data in failed COBOTTA

- Connect PC to faulty COBOTTA.
- Confirm and take note of the software
- Receive all project data (program, variable data, parameter data, ect) from the COBOTTA.
- Take note of the Software Version of the damaged COBOTTA.

Caution- Project data may not be receivable depending on the failure mode, make sure to receive a backup project regularly.



Remove and replace the damaged COBOTTA

- Turn the power switch to the COBOTTA **OFF**.
- Disconnect the power supply from the COBOTTA.
- Remove Estop Circuit from the COBOTTA.
- Take note of and remove all other connection points to the COBOTTA.
- Unbolt and remove the COBOTTA from the workstation.



Sending Project Data to the new COBOTTA

- Connect your PC to the new COBOTTA.
- Confirm the software version of the new COBOTTA.
- Send all project data (program, variable data, parameter data, ect.) to the COBOTTA.

Caution- Software version number must be the same or higher than the failed COBOTTA.



Sending Parameter Data to the new COBOTTA

- Send the parameter data to the COBOTTA.
- Disconnect your PC from the COBOTTA.

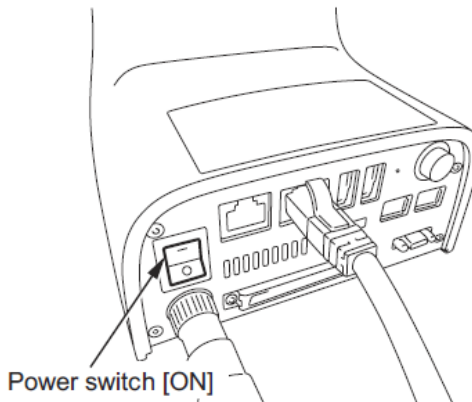
1.2 Receiving the Project Data from the Failed COBOTTA Assembly

Caution- Before you begin receiving the Project Data:

- Turn off power to peripheral devices (equipment connected to the COBOTTA.
- Disconnect all connectors on the COBOTTA (except power source)
- WINCAPS III with Virtual TP must be installed on the PC.
- Set your static IP address within your PC to match the COBOTTA.
Example: COBOTTA IP **192.168.0.1** PC IP **192.168.0.2**

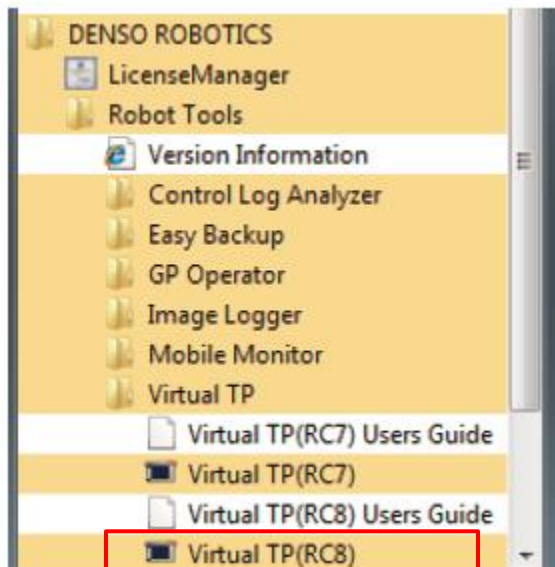
Step 1. Connect your LAN (Cross) cable from your PC to the LAN Port of the COBOTTA

Step 2. Turn **On** the power switch to the COBOTTA.

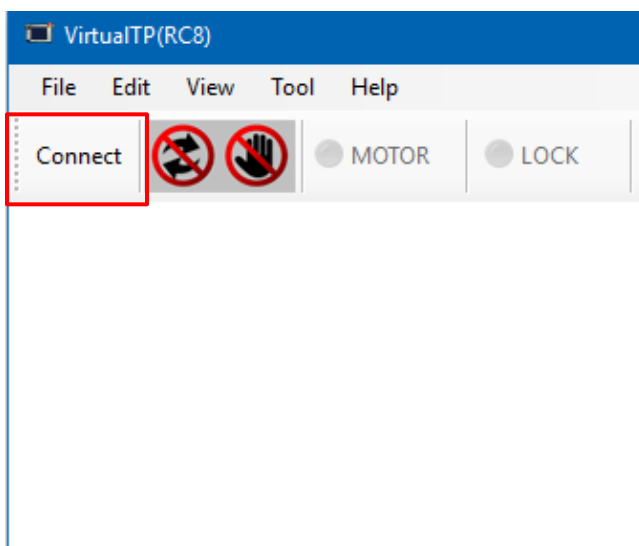


Step 3. Start the Virtual TP (RC8)

- [START] → [All Program Data] → [DENSO ROBOTICS] → [Robot Tools] → [Virtual TP] → [Virtual TP (RC8)]

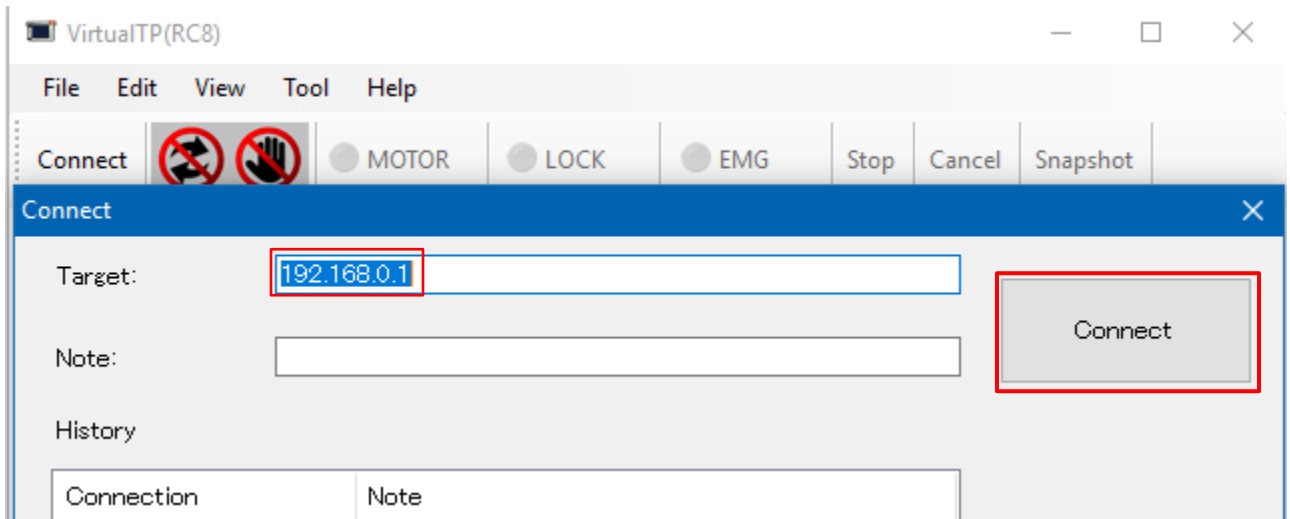


Step 4. Choose [Connect]

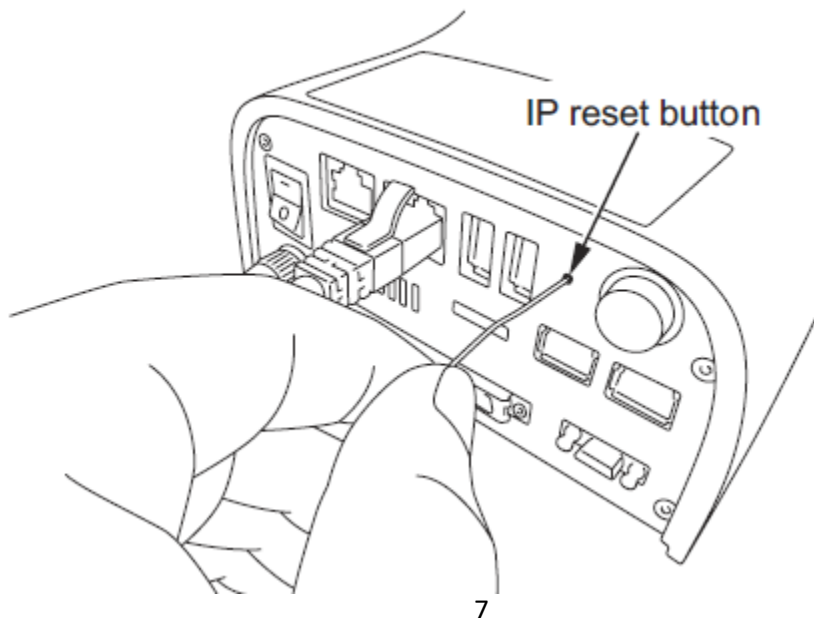


Step 5. Enter the IP address of the COBOTTA and then choose [Connect].

*If you do not know the IP address of the COBOTTA, follow steps 6, 7 and 8 to reset the IP address to the default value of 192.168.0.1. If you do know the IP address of the COBOTTA and successfully connect proceed to step 9.

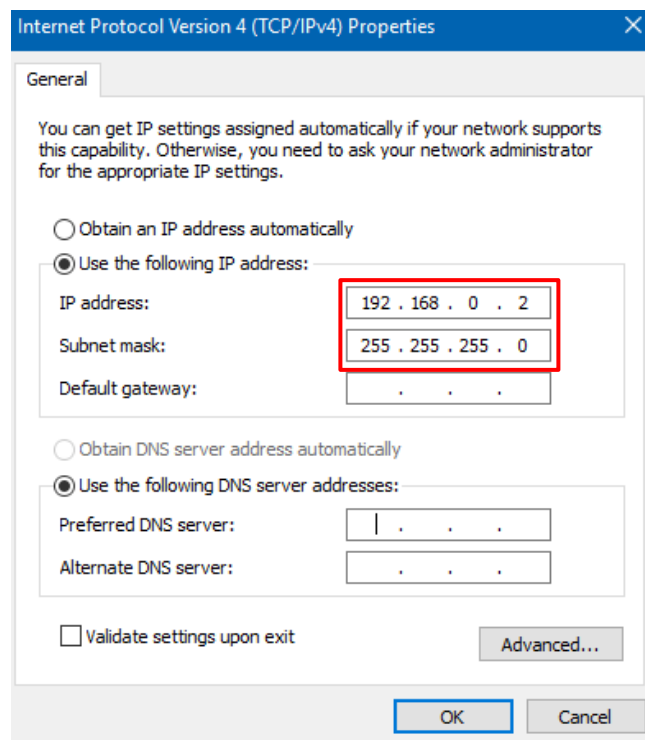


Step 6. To reset the COBOTTA's IP address to the default address of **192.168.0.1**, Press and hold the IP reset button on the COBOTTA and turn the power switch of the COBOTTA from **OFF** to **ON**. Hold the reset button for at least 3 seconds after powering **ON**.

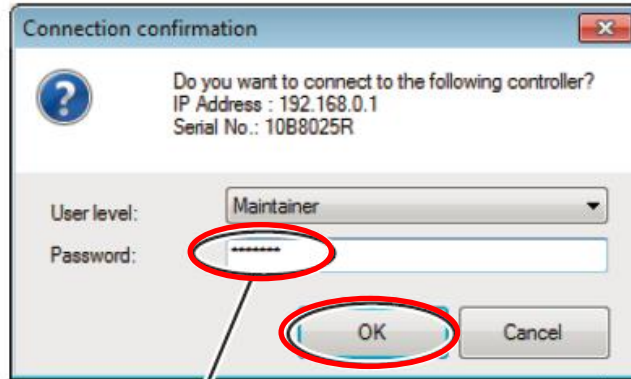


Step 7. Set the IP address and the subnet mask for the local area connection of the PC as follows:

- IP Address: **192.168.0.2**
- Subnet mask: **255.255.255.0**

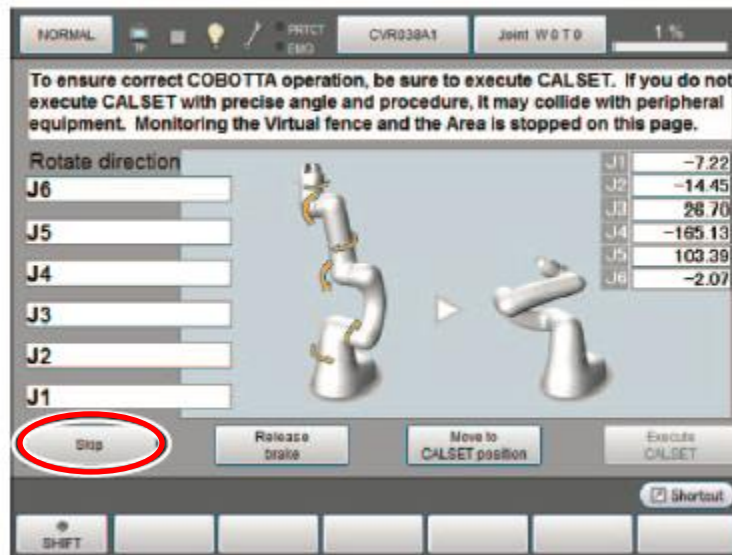


Step 8. In the “Connection Confirmation” box select User Level [Maintainer]
Next enter Password [5593589], then choose “OK”.

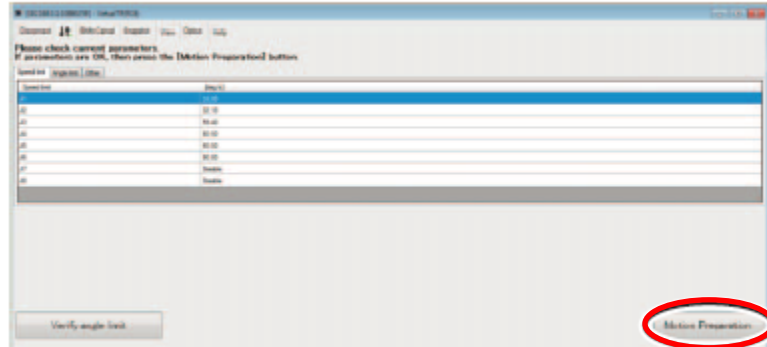


Enter password: 5593589.

Step 9. Choose [Skip]



Step 10. Choose [Motion Preparation]

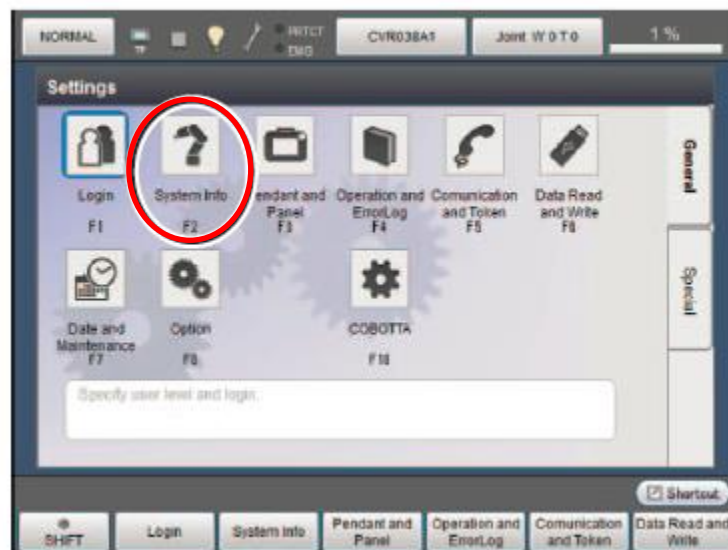


Step 11. Next confirm and take note of the version of software using Virtual TP screens below.

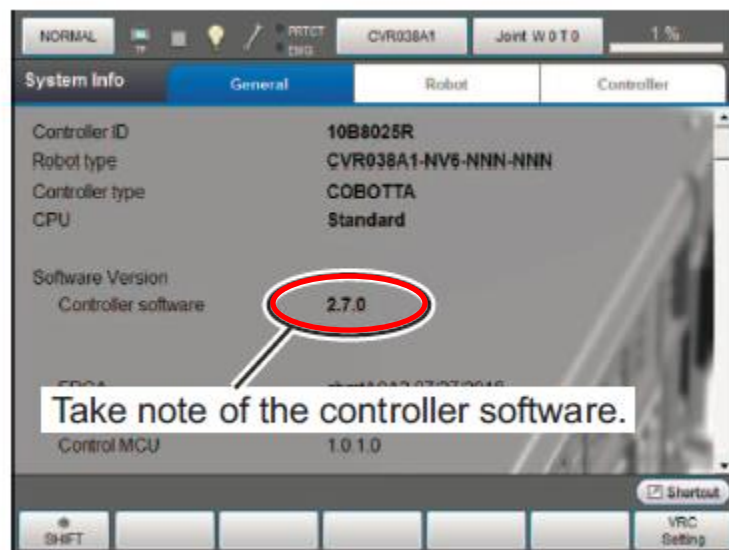
- Choose **[Setting]**



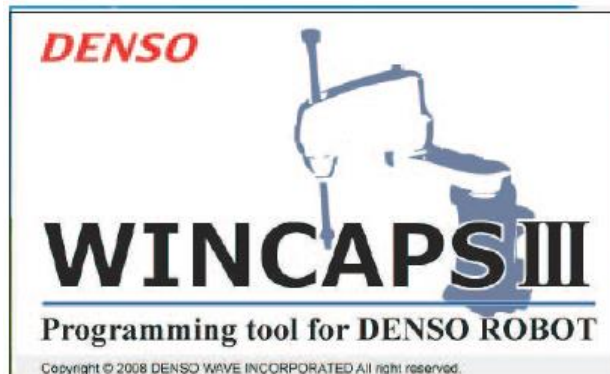
- Choose [System Info]



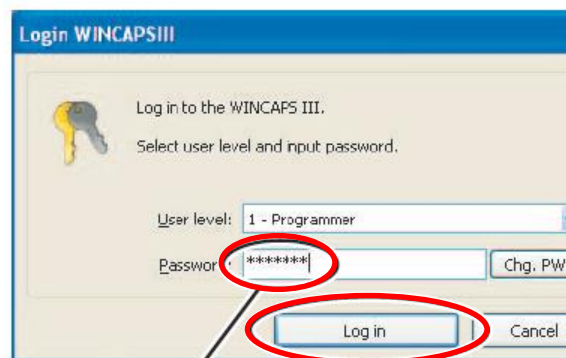
- Take note of the version of software.



Step 12. Start **WINCAPS III** **If unable to connect to the controller or functions of WINCAPS III are not displayed, update WINCAPS III to the latest version and then retry the procedure.*

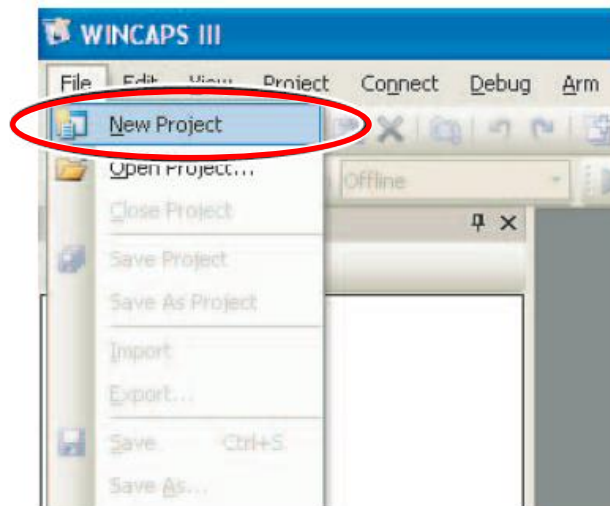


Step 13. Login to WINCAPS III as **Programmer** using Password **5593589**.

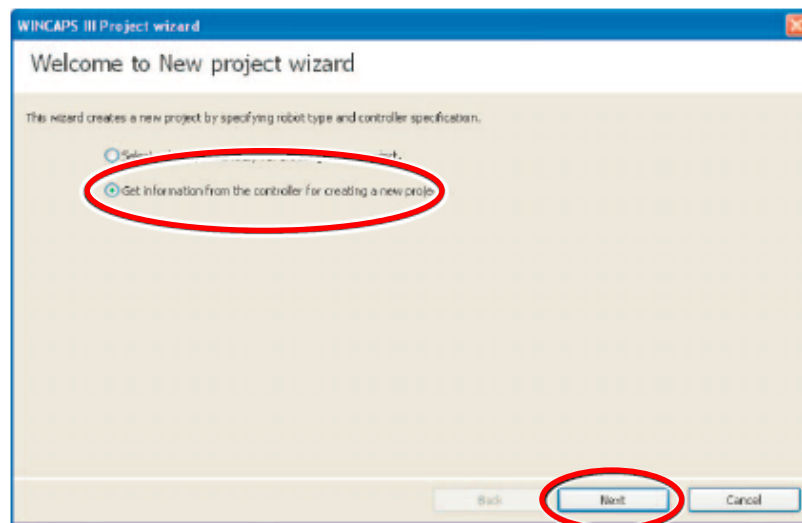


Enter password: 5593589.

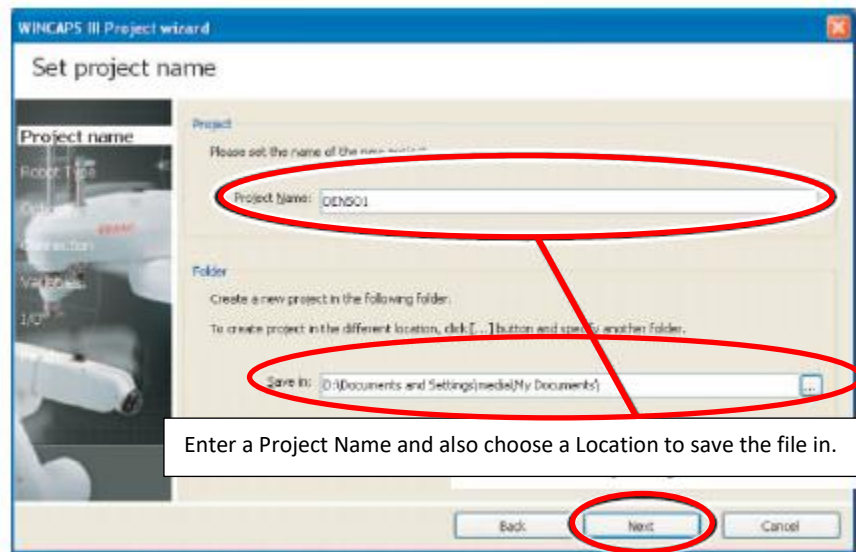
Step 14. Choose New Project in the File Menu.



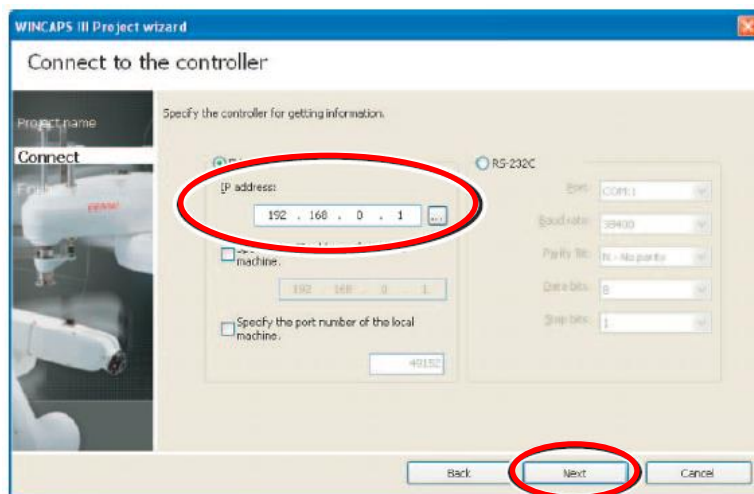
Step 15. When the Welcome to New project wizard screen is displayed, choose Get information for creating a new project then choose Next.



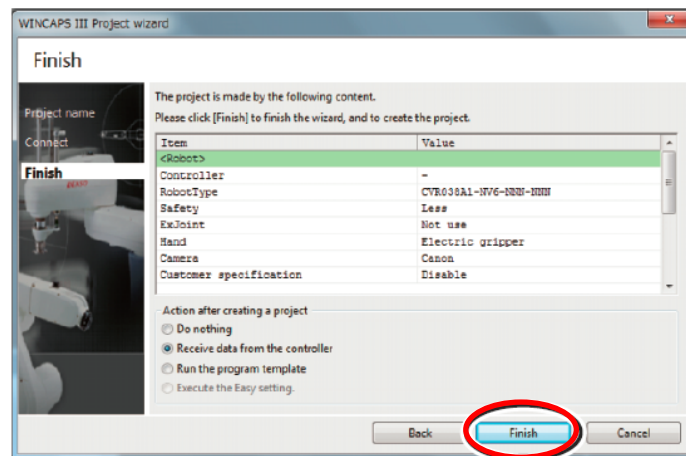
Step 16. Name and also choose the **File Location** for the backup project you are creating. After the Name and Location are designated choose **[Next]**.



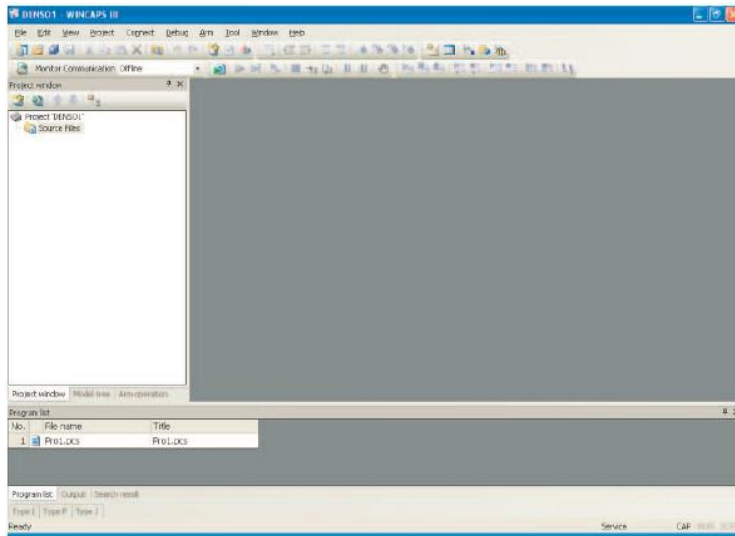
Step 17. When the **Connect to the Controller** screen appears, change the IP address to match your COBOTTA's IP address then choose **Next**. *The default IP address of the COBOTTA is **192.168.0.1**



Step 18. When the **Finish** screen appears choose **Finish**.

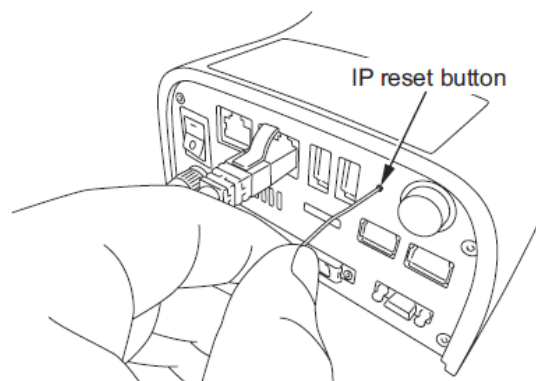


Step 19. When the sending and the saving of the Project Data is complete the screen below appears.

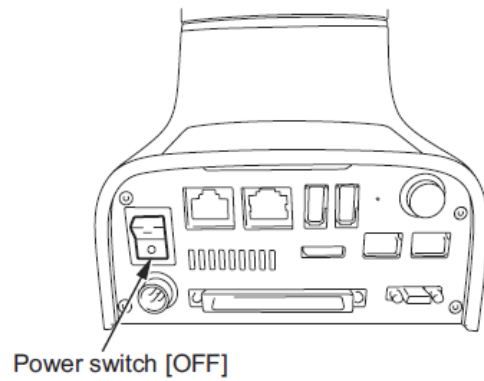


1.3 Sending Project Data to the New COBOTTA Assembly

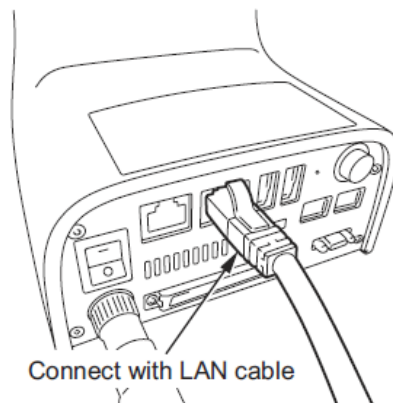
Step 1. If needed, reset the IP address of the New COBOTTA by turning on the power and then pressing and holding the IP Reset Button for at least 3 seconds. This sets the COBOTTA's IP address to the default setting of 192.168.0.1



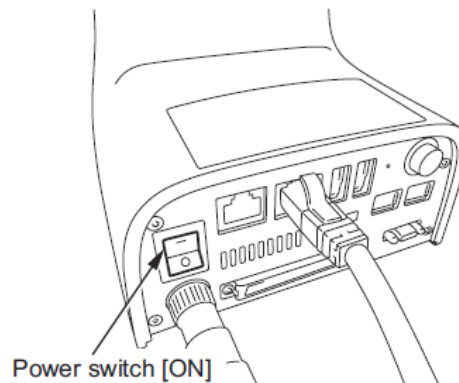
Step 2. After the COBOTTA completes the boot up process, turn the power **OFF** on the COBOTTA.



Step 3. Connect one end of a LAN (cross) cable to the LAN connection port of the COBOTTA and the other end to the LAN port of your PC.

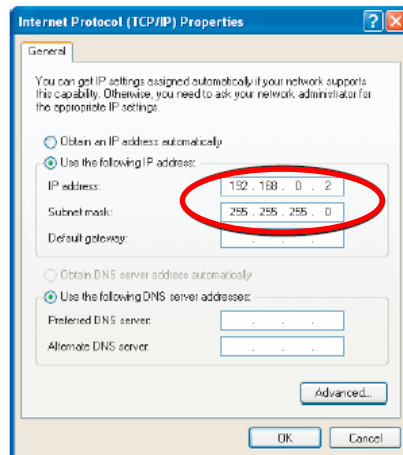


Step 4. Turn **ON** the power to the COBOTTA.

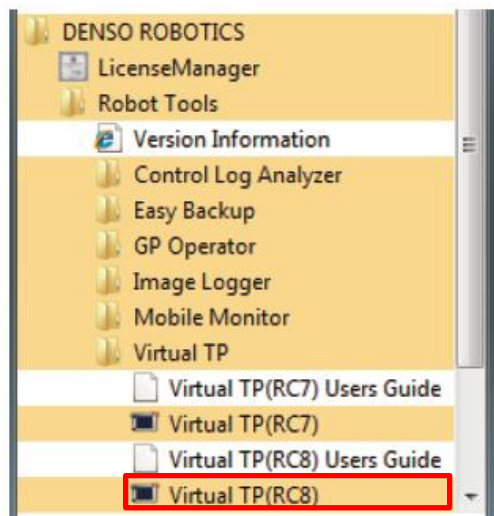


Step 5. Set the IP address and Subnet Mask for the local area connection of your PC as below.

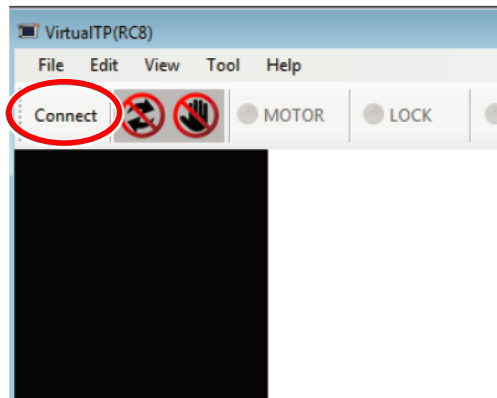
IP Address: 192.168.0.2
Subnet Mask: 255.255.255.0



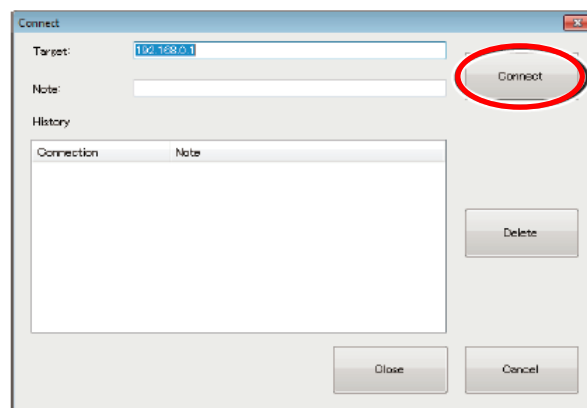
Step 6. Start the Virtual TP on your PC.



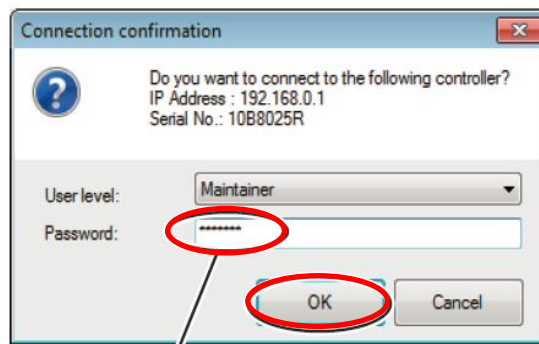
Step 7. Choose **Connect** on the Virtual TP screen.



Step 8. Choose **Connect** on the next screen.

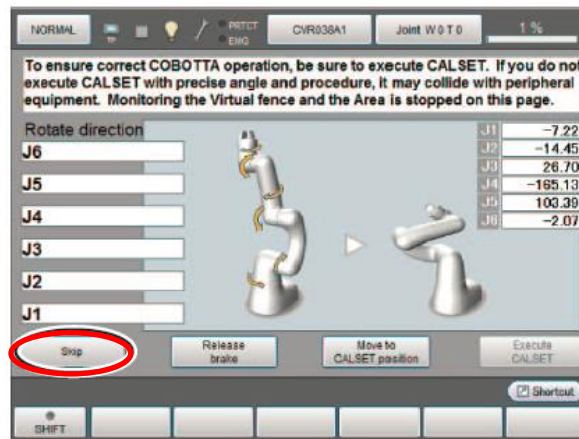


Step 9. At the “Connection Confirmation” box select User Level as **Maintainer** and for the **Password** enter **5593589** as the password.

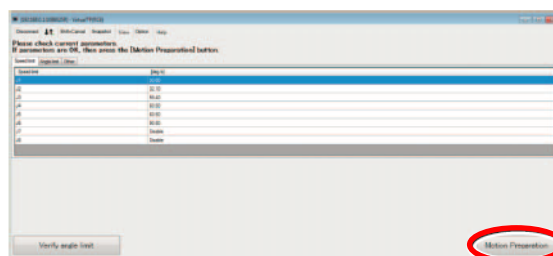


Enter password: 5593589.

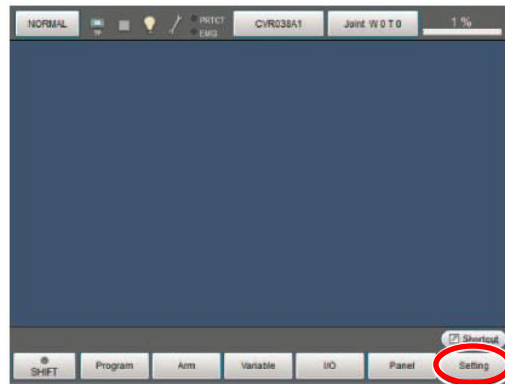
Step 10. Choose **Skip** on the next screen.



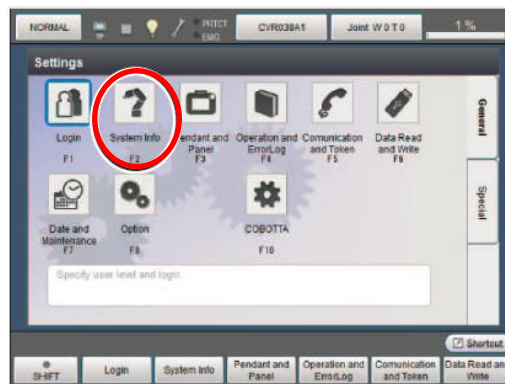
Step 11. Now choose **Motion Preparation**.



Step 12. Next confirm the Version of the Software. Using the Virtual TP **Cancel** to the Main Screen then choose **Setting**.



Step 13. Now choose [System Info].

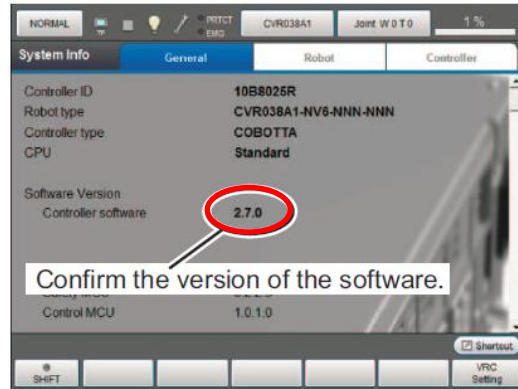


Step 14. Confirm the version of the software. The Version must be the same version number or higher than the version noted in [Step 11 of Receiving the Project Data from the \(Damaged\) COBOTTA](#).

* If the version of the replacement COBOTTA is older than the damaged robot please view the ROM image updating procedure that can be found at:
<https://www.densorobotics.com/knowledge-base/cobotta-version-upgrade-function->

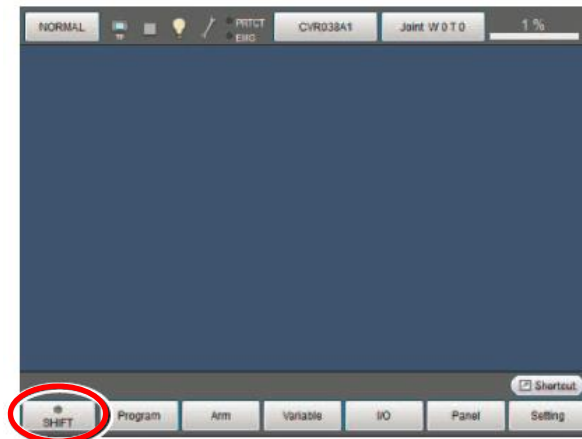
[procedure/](#)

Do not continue until the ROM image of the New COBOTTA is the same version or higher than the original COBOTTA.

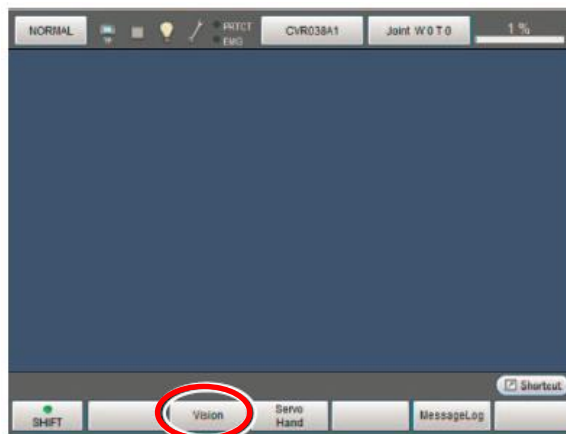


If your COBOTTA has a camera please follow the steps 15-18 below, if not skip to Step 19.

Step 15. From the Main Screen of the Virtual Teach Pendant choose **Shift**.



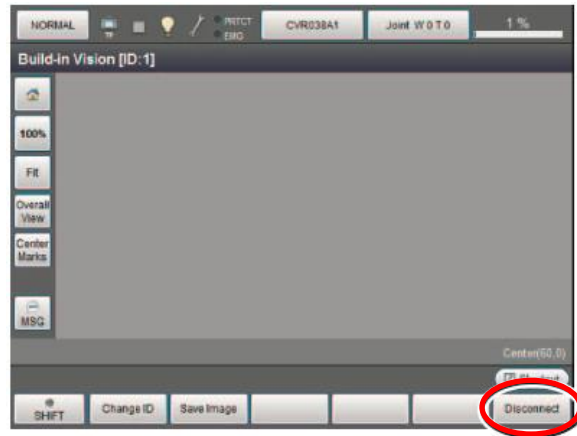
Step 16. Now choose **Vision**.



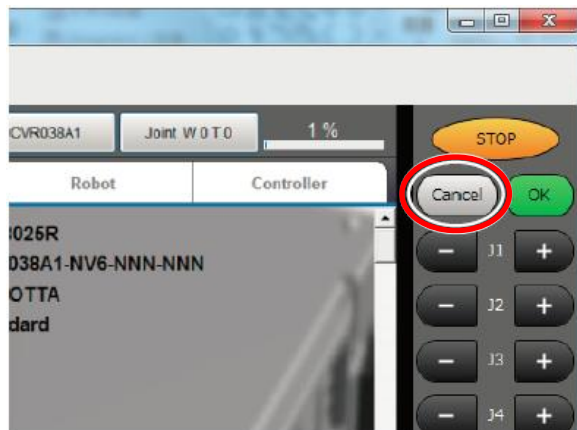
Step 17. Next select **Build-in Vision**.



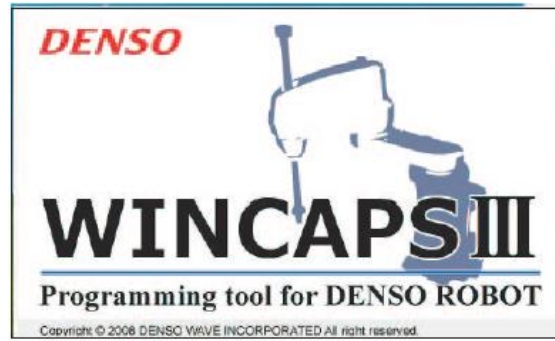
Step 18. Now choose **Disconnect**.



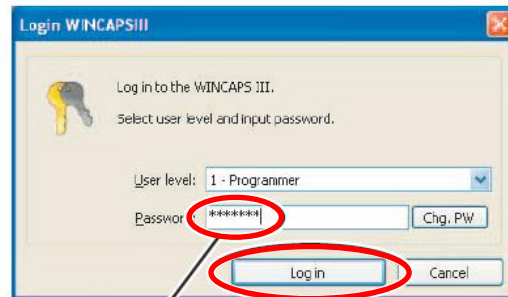
Step 19. Press **Cancel** twice to return to the Main Screen of the Virtual Pendant.



Step 20. Using your Laptop start up **WINCAPS III**.



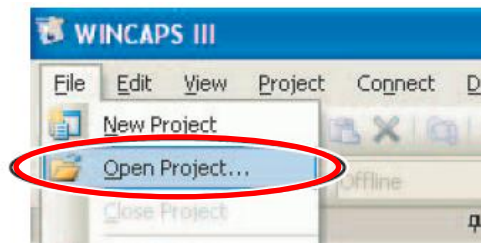
Step 21. Login to WINCAPS III as User Level 1 Programmer, then enter password 5593589.



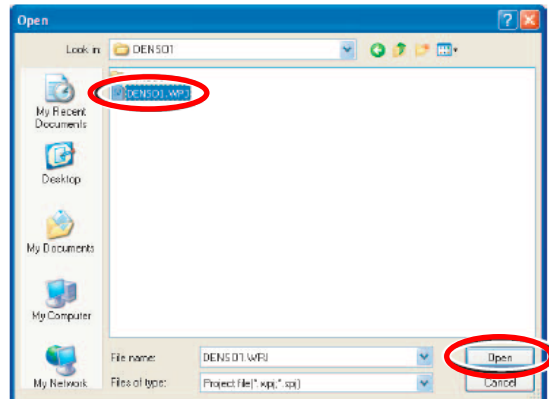
Enter password: 5593589.

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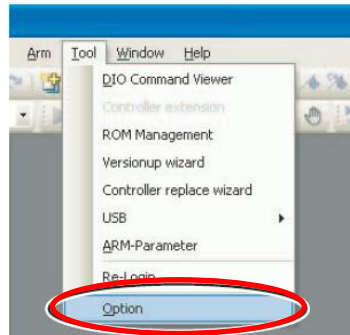
Step 22. Send the Backup Project Data from the Faulty COBOTTA to the New COBOTTA using WINCAPS III. Choose Open Project in the File menu.



Step 23. In the **Open** dialog box locate the Backup File that was taken from the failed COBOTTA.

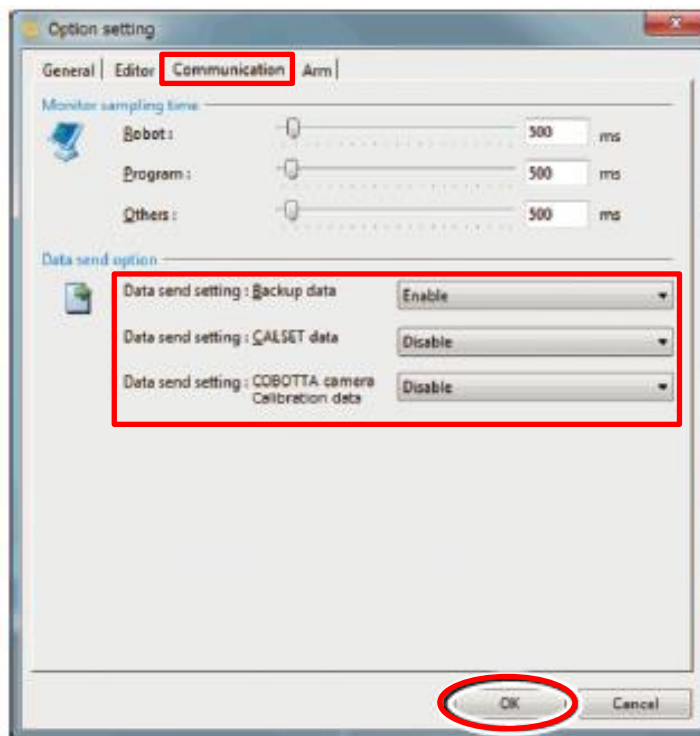


Step 24. Once the Backup Project opens Choose Option in the Tool menu.

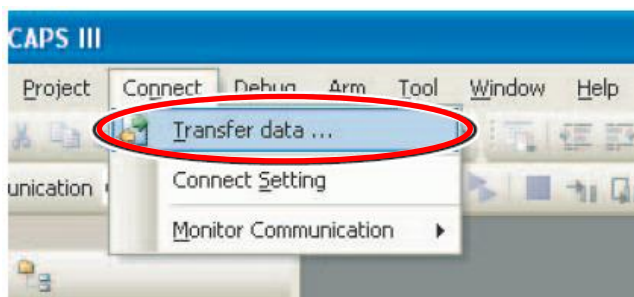


Step 25. Click on the [Communication] tab in the [Option setting] dialog box, only Enable the [Data send setting: Backup data] option, then choose [OK].

*Make sure you keep [Data send setting: CALSET data] and [Data send setting: COBOTTA camera Calibration data] to Disable.

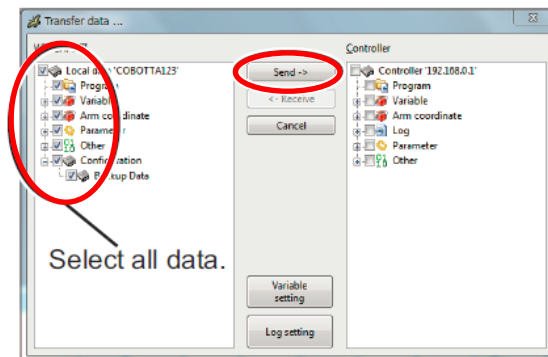


Step 26. Now choose Transfer data in the **C**onnect menu.

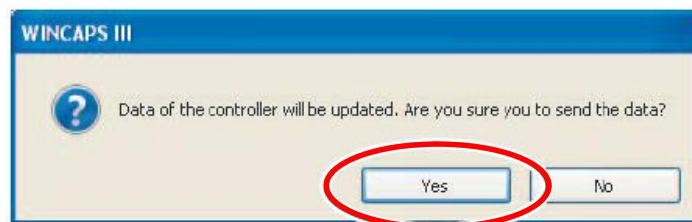


Step 27. In the **Transfer Data** dialog box, select all data for the WINCAPS III side, and then choose **Send->**. *Click **OK**, if the message "Please stop built in vision

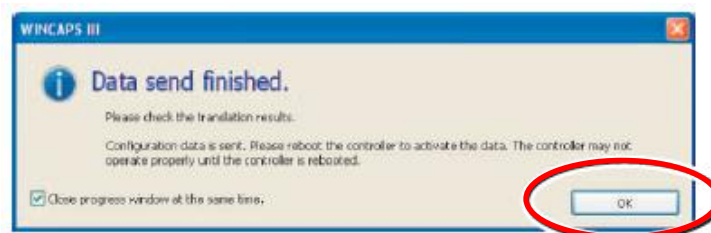
function when you send the data of OpenCV to the Controller.” Appears when selecting data.



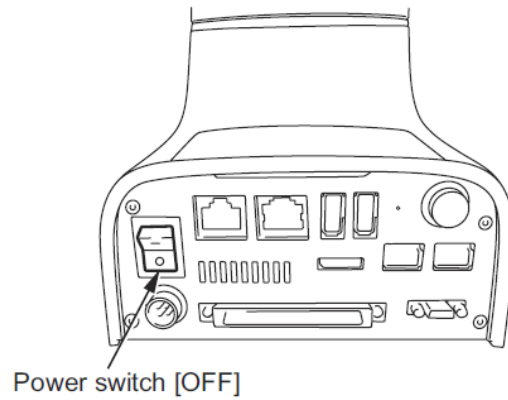
Step 28. Choose **Yes** when **Data of the Controller will be updated, are you sure you want to send the data** appears.



Step 29. Once the data has been sent, the window below will be displayed, choose **[OK]**.



Step 30. Turn the power switch of the COBOTTA **Off**, wait at least 6 seconds then turn the power switch of the COBOTTA back **On**. Project Data Sending is now finished.

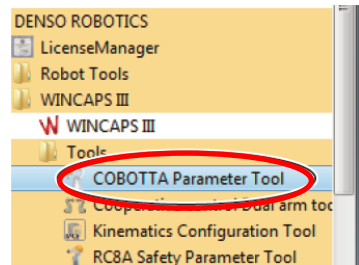


1.3 Sending Parameter Data to the New COBOTTA Assembly

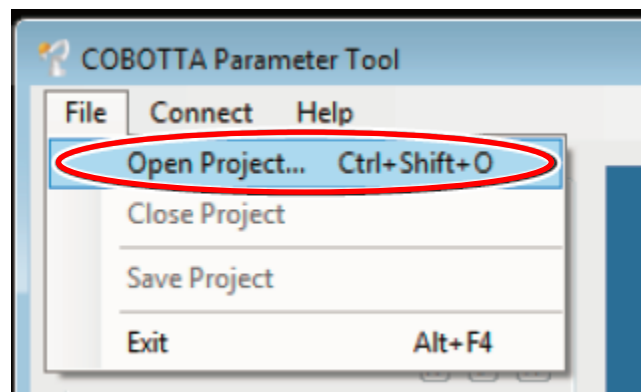
**If at any time you are unable to connect to the controller or functions of WINCAPS III are not displayed, update WINCAPS III to the latest version and then retry these procedures.*

Step 1. Start the COBOTTA parameter tool.

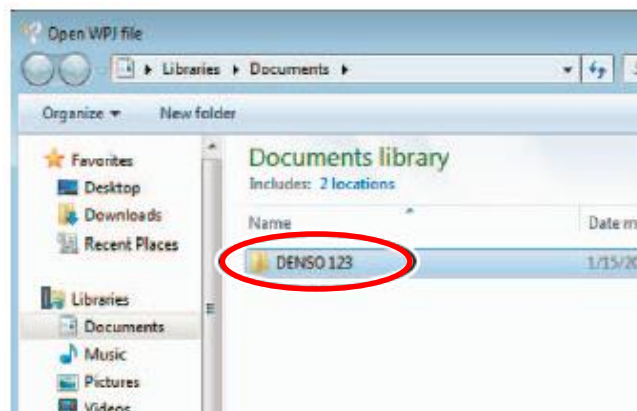
[START] → [All program data] → [DENSO ROBOTICS] → [WINCAPS III] → [Tools] → [COBOTTA Parameter Tool]








Step 2. Choose **Open Project** in the **File** menu.



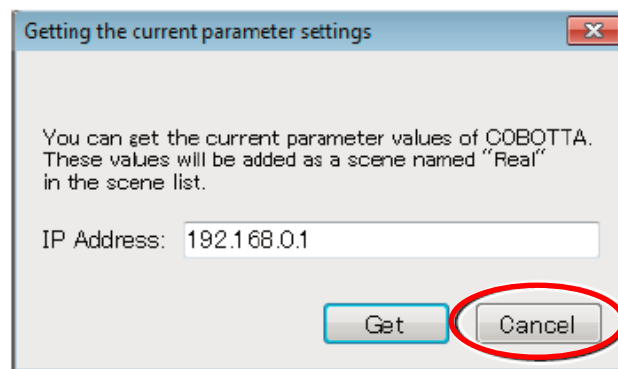
Step 3. Select the folder with the project data that was received from the failed COBOTTA as pictured below.



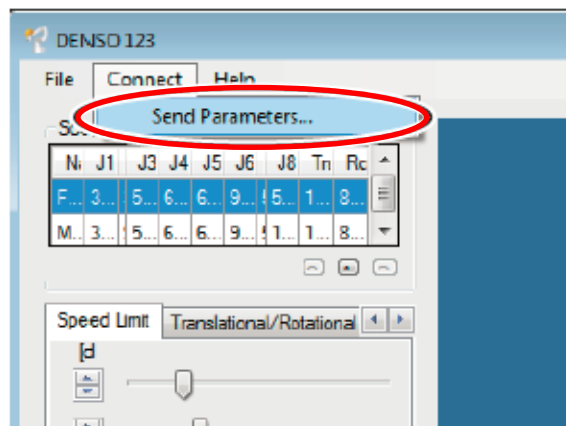
Step 4. Choose the file with the file extension **.WPJ**

	Cobotta 80C8051R	7/3/2019 4:26 PM
	Cobotta 80C8051R.ExData	7/3/2019 10:17 AM
	Robots	7/2/2019 3:22 PM
	Cobotta 80C8051R.WPJ	7/2/2019 3:23 PM
	Cobotta 80C8051R.WUO	7/3/2019 4:26 PM

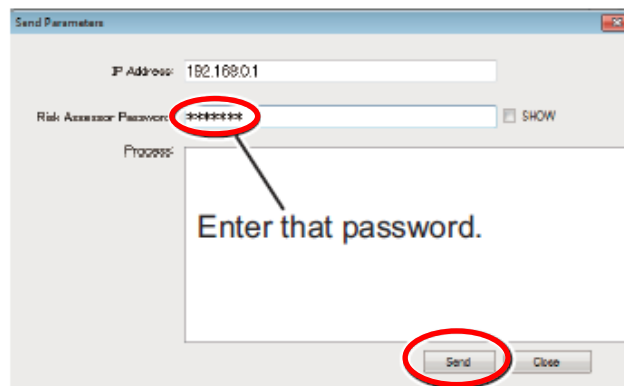
Step 5. At the **Getting the current parameter settings** screen choose [Cancel].



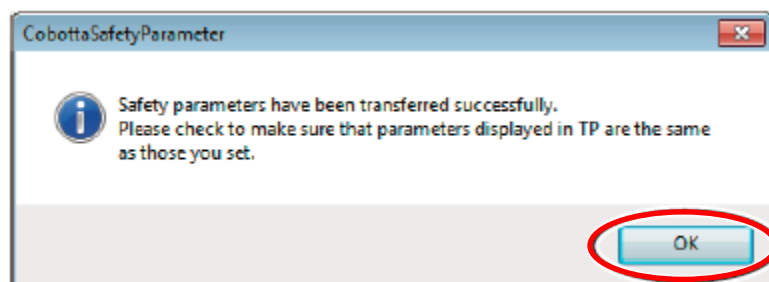
Step 6. Choose **Send Parameters** in the **Connect** menu.



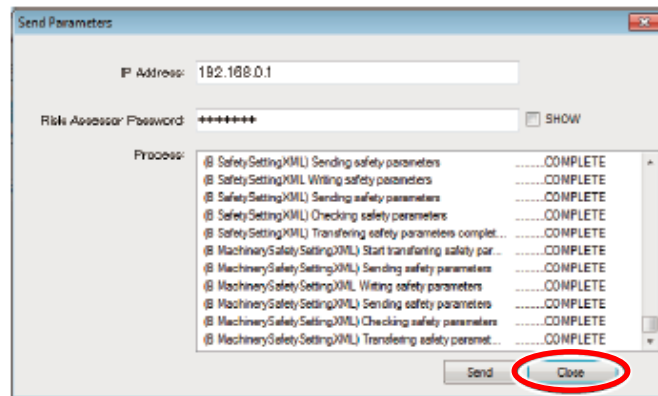
Step 7. Enter **5594382** (default) as the risk assessor password and then choose **Send**.
*If you have changed the default password to your own password, enter that password.



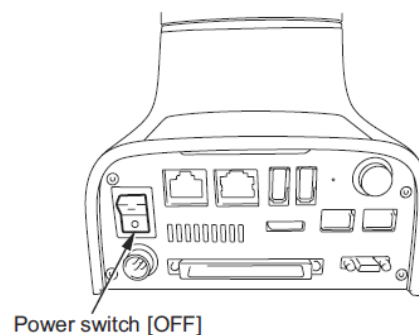
Step 8. Choose **OK** when the **Safety Parameters Have Been Transferred** screen appears.



Step 9. Now choose **Close**.



Step 10. Turn the power switch of the COBOTTA to the **Off** position, wait at least 6 seconds then turn the switch back **On**. The *Parameter Data Sending* and this procedure is complete. Finally, using WINCAPS III create a backup project of the new COBOTTA.



Note If you have to move a Camera from the original COBOTTA to the New COBOTTA a Camera Calibration is necessary. Please view the **COBOTTA Camera Calibration Manual**.