Robot Replacement in Existing MotoSim Cell

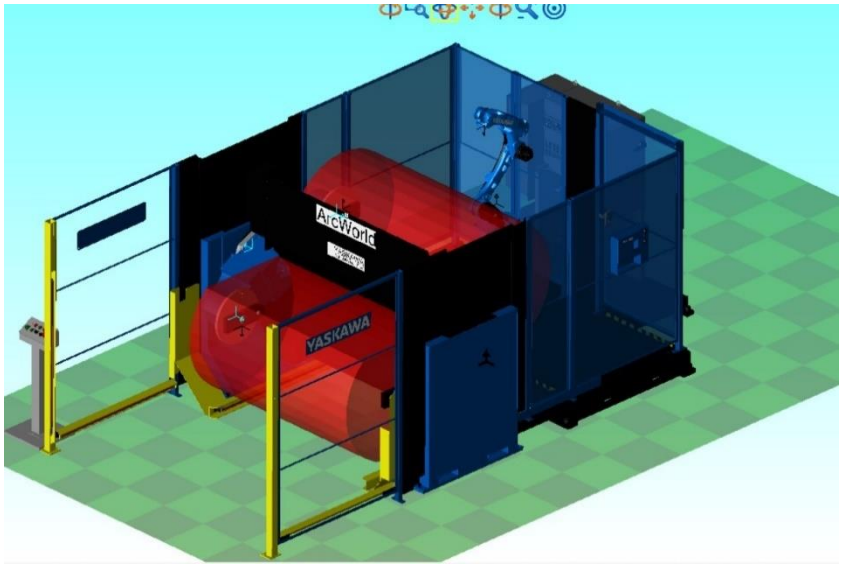
Introduction

This procedure will describe changing the robot model on the Controller. It will detail the steps necessary to change the Control group in the Controller as well as the robot model.

For this procedure, the robot that exists in the current Standard AWIV-6000SL-755_2M_AR1440 will be changed to an AR2010.

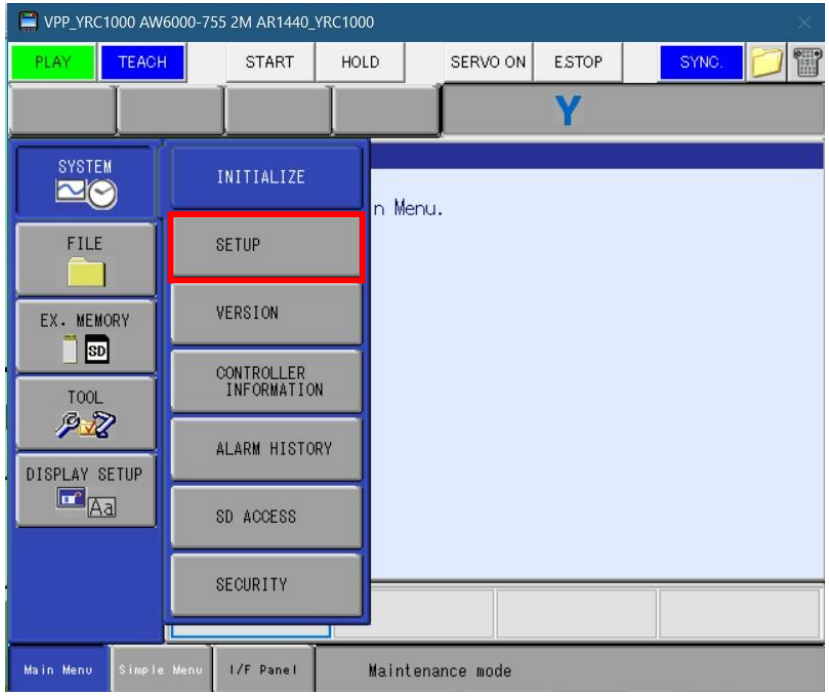
Procedure:

1. Open your cell

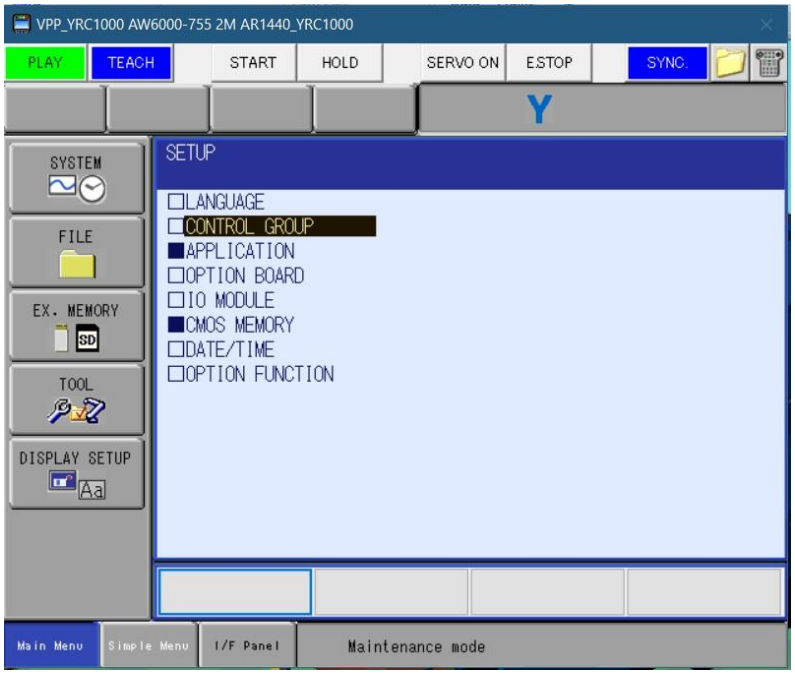


2. On the Controller tab, Select Maintenance Mode

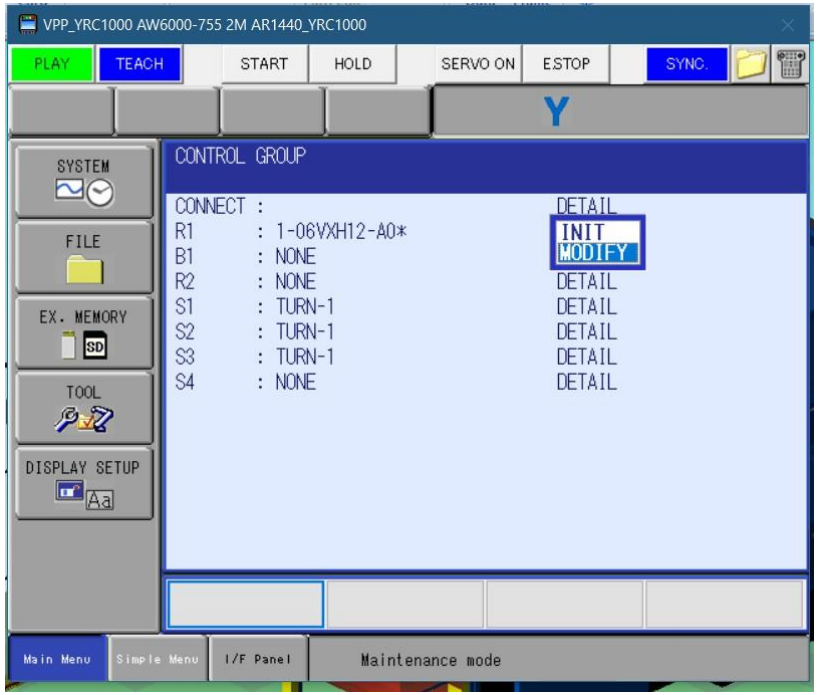
3. Select System – Setup



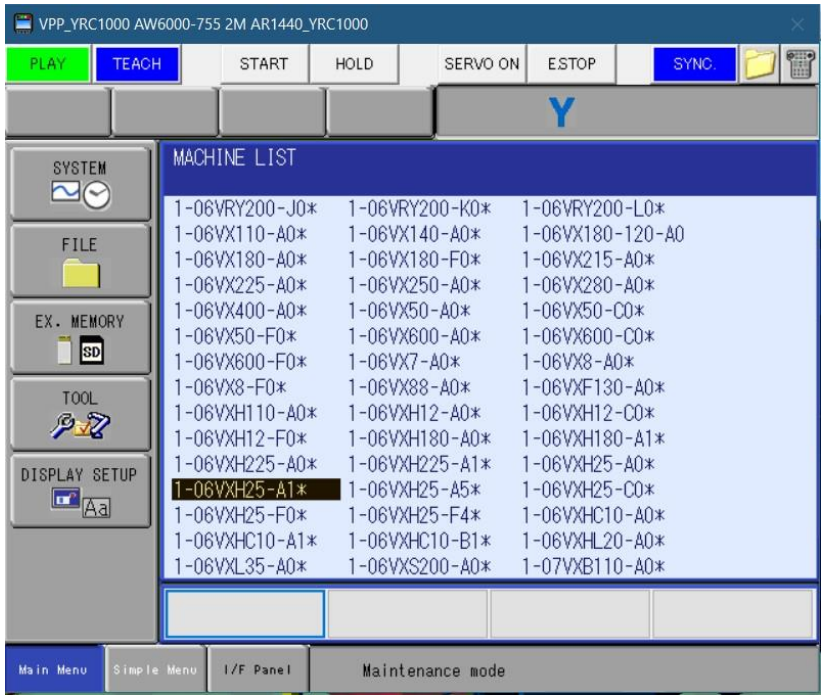
4. Select Control Group



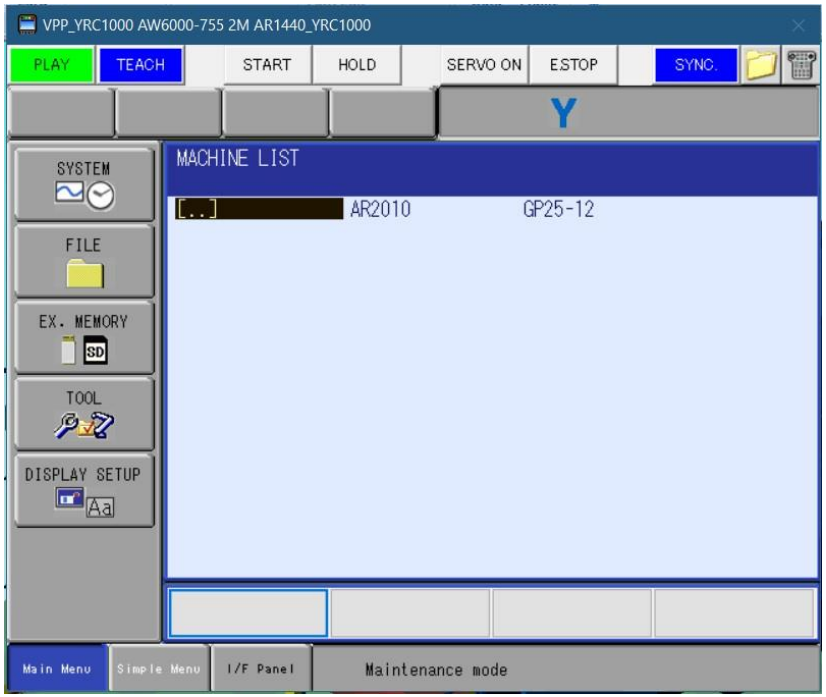
5. Cursor to the Robot and select Detail and Modify



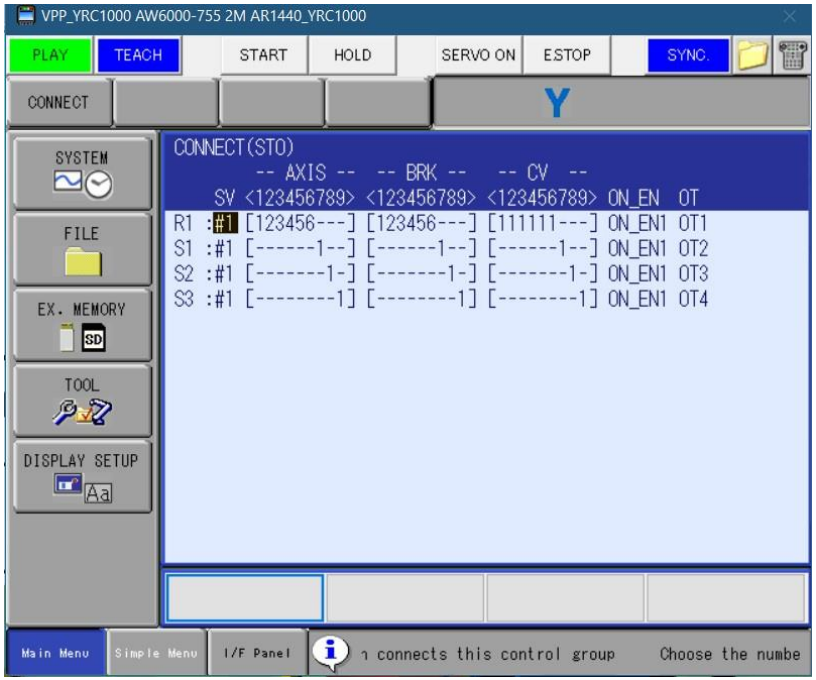
6. In the Machine List, cursor to the robot type needed



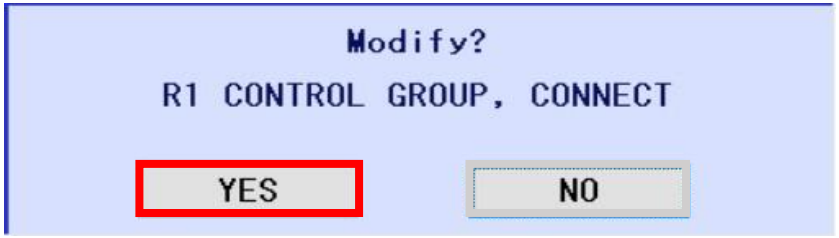
7. Select the Required Robot



8. Confirm Connect by pressing enter

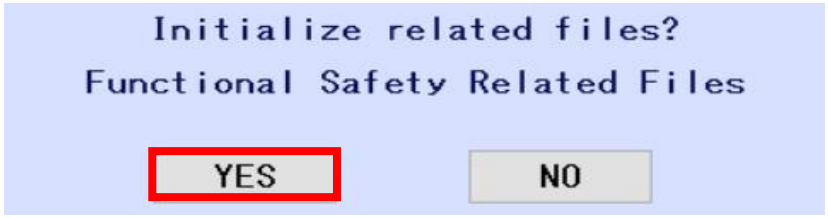


9. Select Yes for Modify R1 Control Group Connect

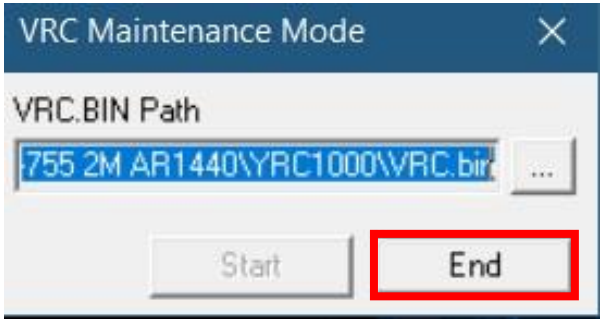


10. Select Yes for the Initialize Related Files, PM (Hardware) File

11. Select Yes for the Initialize Related Files, Functional Safety Related Files (If prompted).
    A. If set, Functional Safety settings will need to be changed for the new robot.

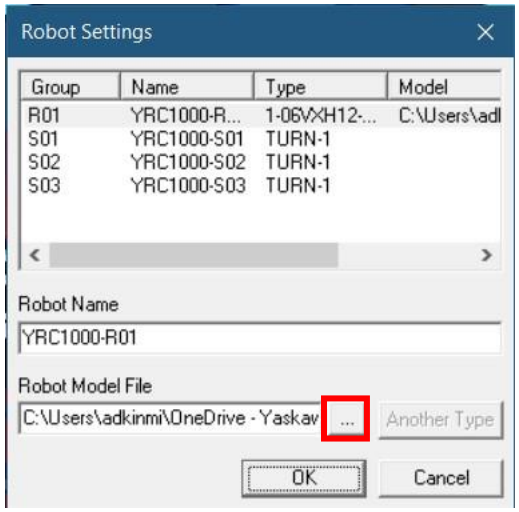


12. Select End for the VRC Maintenance Mode

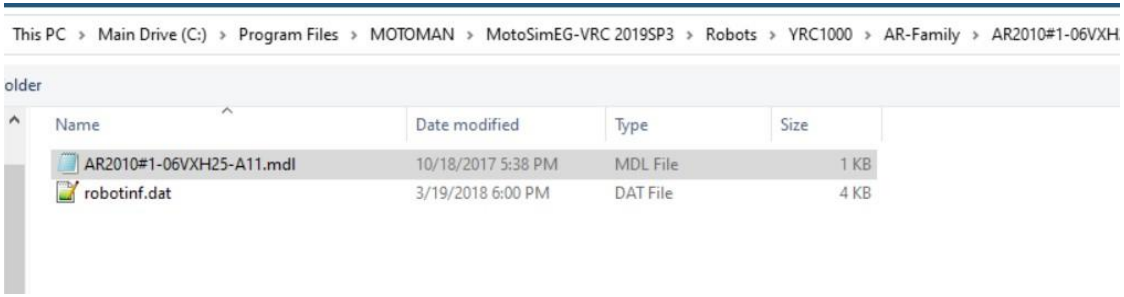


13. After the Controller has rebooted, Select Controller –Model Setting.

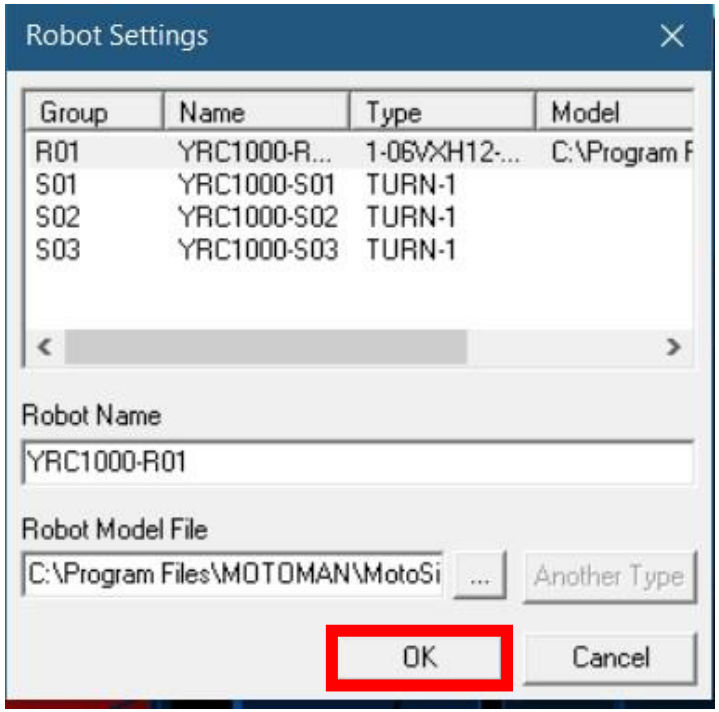
14. In the Robot Settings dialog, Highlight the R01 group and select the Browse button



15. Browse to:
C:\Program Files\MOTOMAN\MotoSimEG-VRC 2019SP3\Robots\YRC1000\AR-Family\AR2010#1-06VXH25-A11

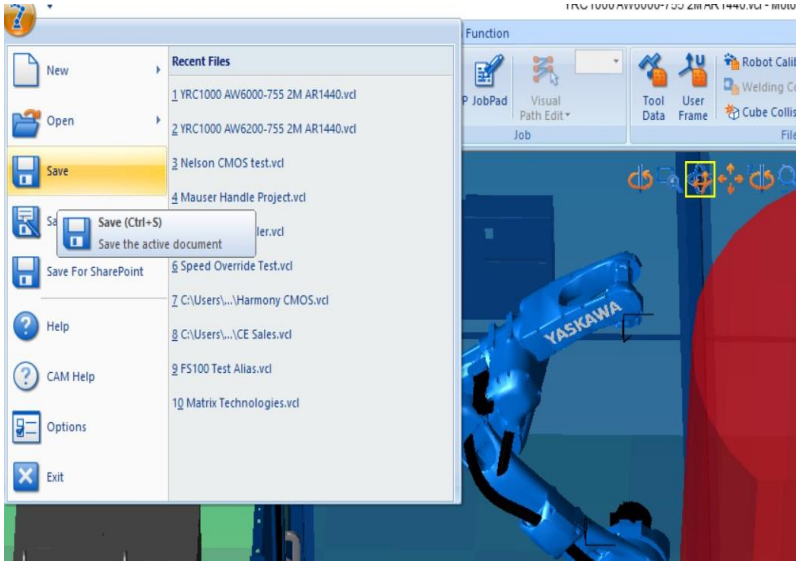


16. Select OK


Robot Settings
Group
Name
Type
Model
R01
YRC1000-R...
1-06VXH12-...
C:\Program F
S01
YRC1000-S01
TURN-1
S02
YRC1000-S02
TURN-1
S03
YRC1000-S03
TURN-1
Robot Name
YRC1000-R01
Robot Model File
C:\Program Files\MOTOMAN\MotoSi
...
Another Type
OK
Cancel

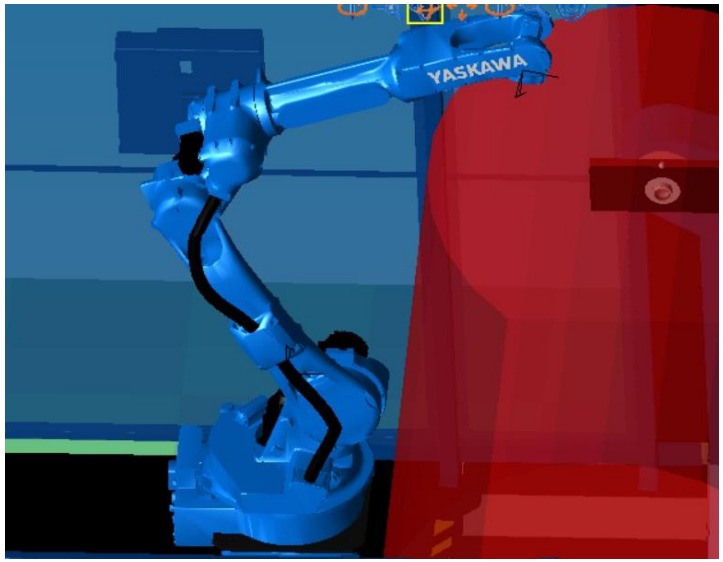
17. The robot model has been replaced at this point but is not assembled correctly, as shown in the following.

18. Save the cell



19. Click OK if prompted to save in the current version.
20. Exit from MotoSimEG-VRC
    - Run VRCdelete.bat at this time if desired

21. Open MotoSimEG-VRC again and open the recently modified cell. The robot will be displayed correctly.

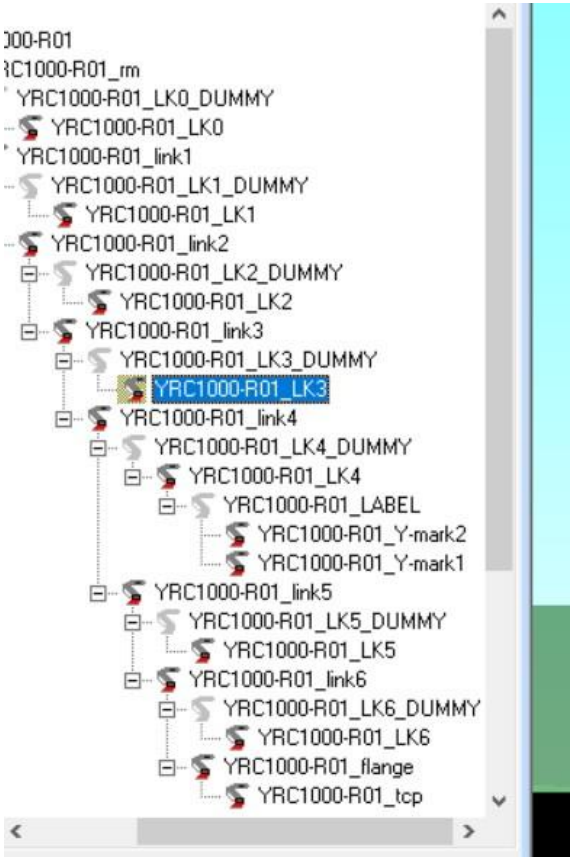


22. If the wire feeder was present, the Wire feeder should be deleted and the proper one for the AR2010 robot should be added from the model Library. Also depends on welding system you are using for wire feeder model.

- See Section 8.17 of the MotoSimEG-VRC Operator's Manual for use of the Model Library.
- If the model is not in the model library, it could be found at,

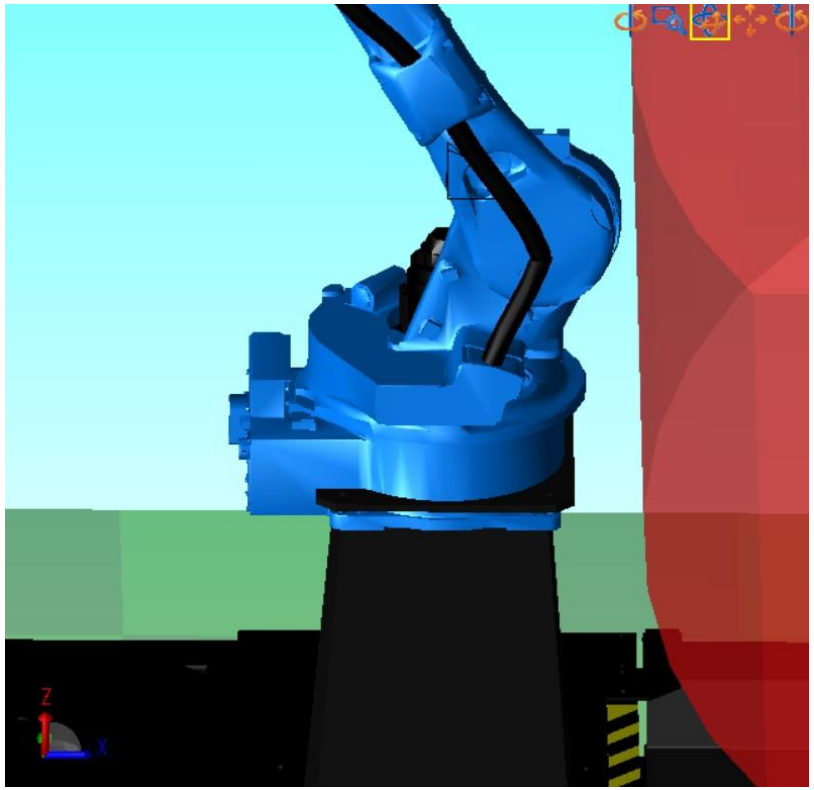
https://www.motoman.com/en-us/products/software/simulation/motosim-eg-vrc-model-library

23. Add the correct wire feeder to the model, on this link of the robot.



24. The Offset Value of the AR2010 is larger than the AR1440 that it replaced. It must be raised up 55mm.

- See Section 15.8 of the MotoSimEG-VRC Operator's Manual for the Manipulator Offset Values.



The process is now complete