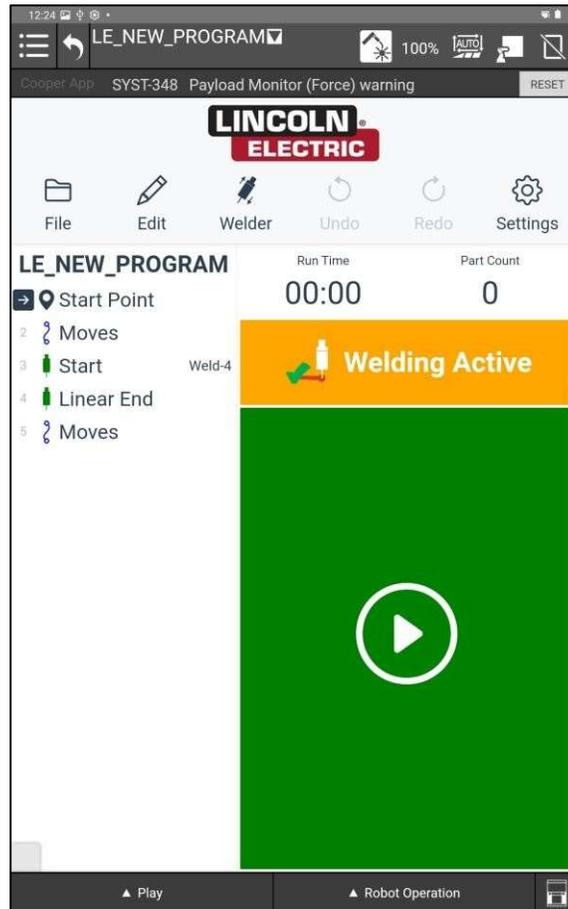




Cooper App Software Update Guide

Cooper CRX Cobots



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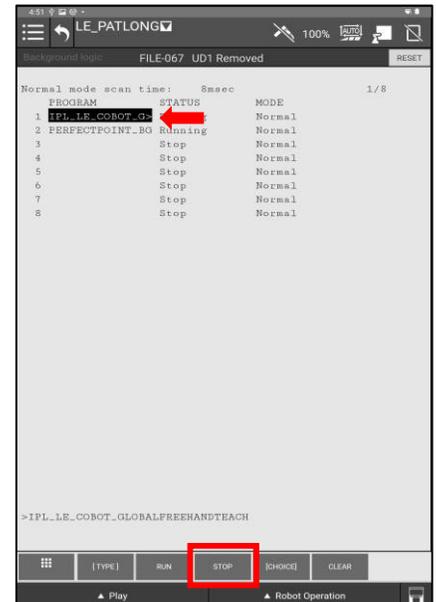
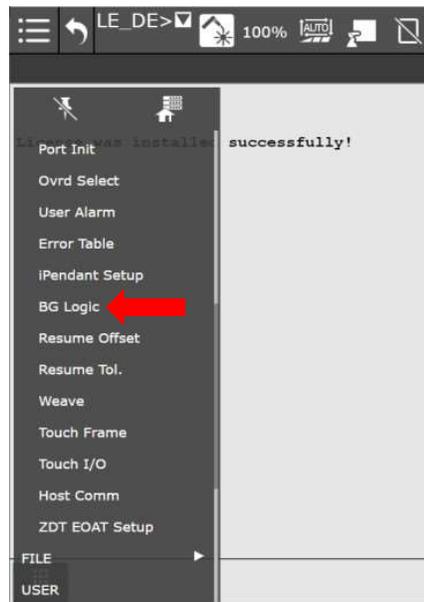
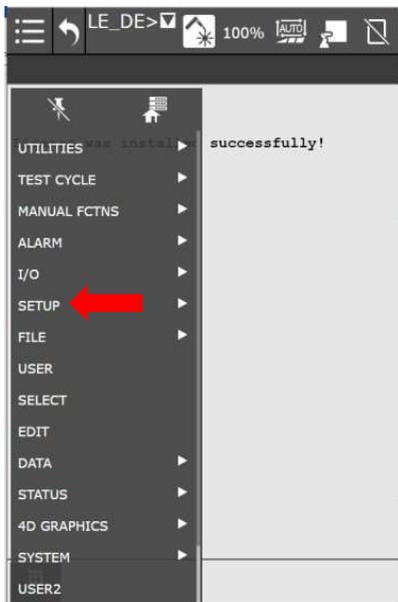
Section 1.0: Prerequisites

- (1) The robot must have previously been set up with standard IO configuration to support the welder and payload data for the torch.
- (2) The robot must be loaded with FANUC software release V9.40P/50 and Tablet TP Android App Software – V1.27
- (3) The robot must have options R796 (Ascii Program Loader) and R632 (KAREL) authorized and installed. R877 (Thick Plate Weld Pkg) is required if Thru-Arc Seam Tracking will be licensed.

Section 1.1: Cooper App Background Logic STOP

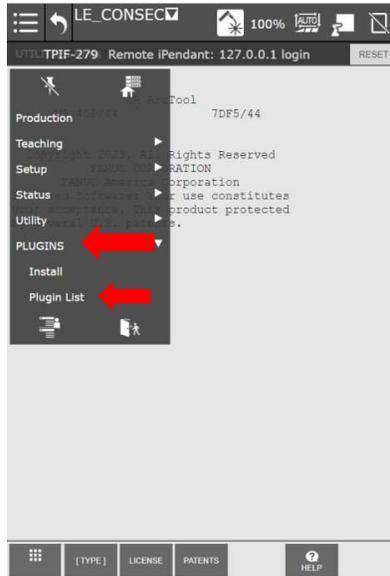
First step in the software update process is to STOP the Cooper App Background Logic to allow for an all-inclusive uninstallation of the older version of the Cooper App.

From the FANUC verbose version of the dropdown navigate to SETUP / BG Logic. From the BG Logic Screen ensure that IPL_LE_COBOT is highlighted then press the STOP button

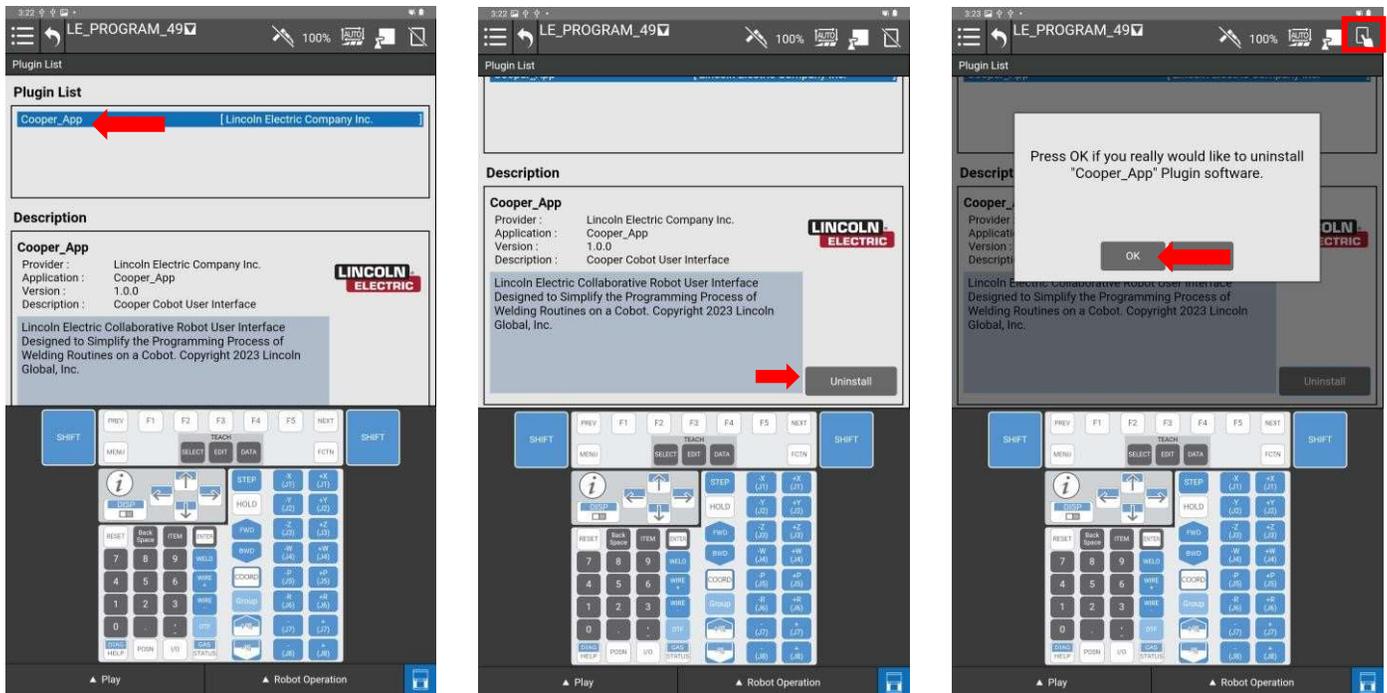


Section 1.2: Cooper App Plug-In Uninstall

- (1) From the FANUC reduced version of the dropdown navigate to PLUGINS -> Plugin List and click on Plugin List.

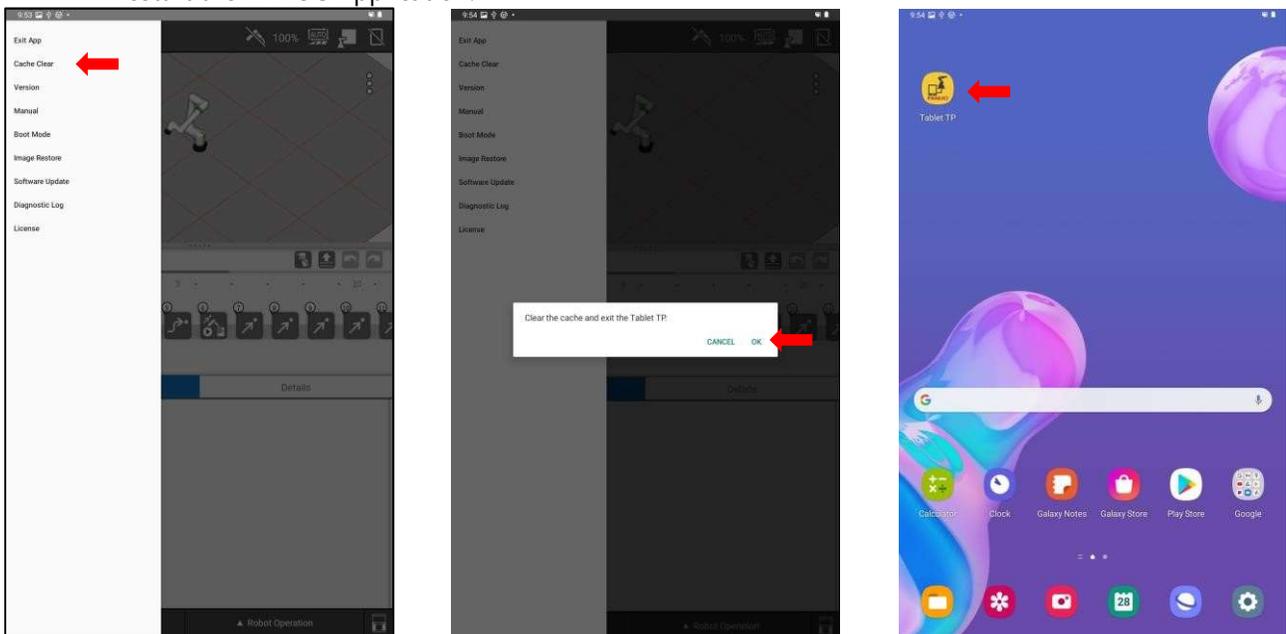


- (2) From the FANUC Plugin List ensure that Cooper_App is highlighted. Scroll down on the page until the Uninstall button is shown. Click on "Uninstall" and then OK on the pop-up to confirm the uninstallation of the Cooper App. Note, the teach pendant will need to be enabled.



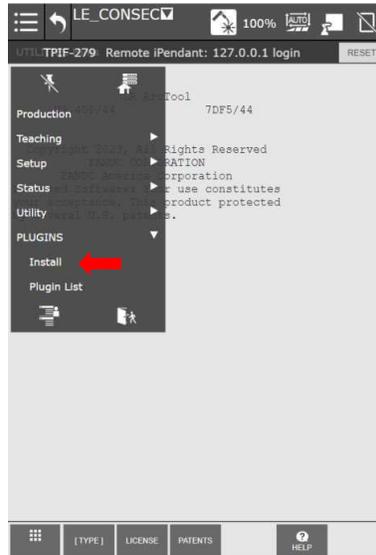
Section 1.3: FANUC App – Cache Clear

From within the FANUC Timeline application swipe the screen from the left to the right to expose the Clear Cache option. Press the Cache Clear button and then OK. Once the cache is cleared the FANUC Timeline application will close and you will be required to restart the FANUC Application.



Section 1.4: Cooper App Plug-In Install

- (1) Insert a USB drive with the file Cooper_App.ipl in it. The Cooper_App.ipl should be at the root level and not located within a folder. It should be named exactly 'Cooper_App.ipl'. If multiple copies of the app have been downloaded i.e. Cooper_App(1).ipl, please rename the file and ensure there are NO spaces in the name. From the FANUC reduced version of the dropdown navigate to PLUGINS -> Install

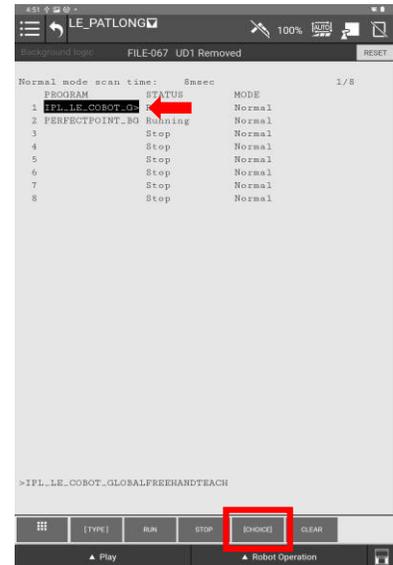
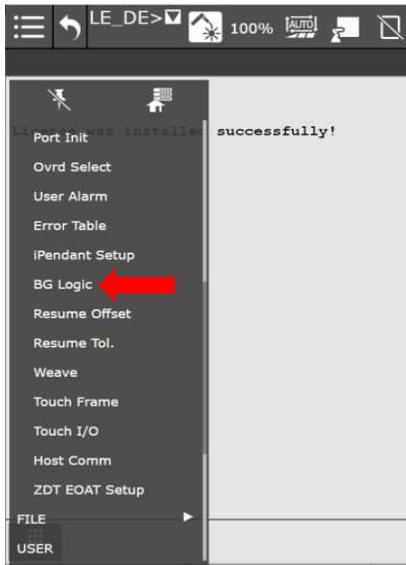


- (2) Verify that you're installing the expected version of the software. Once confirmed press Install -> OK buttons and wait for the install to complete. The installation process will take a few minutes (5 – 10). Once completed you will be presented with a "Plugin software successfully installed!" message.

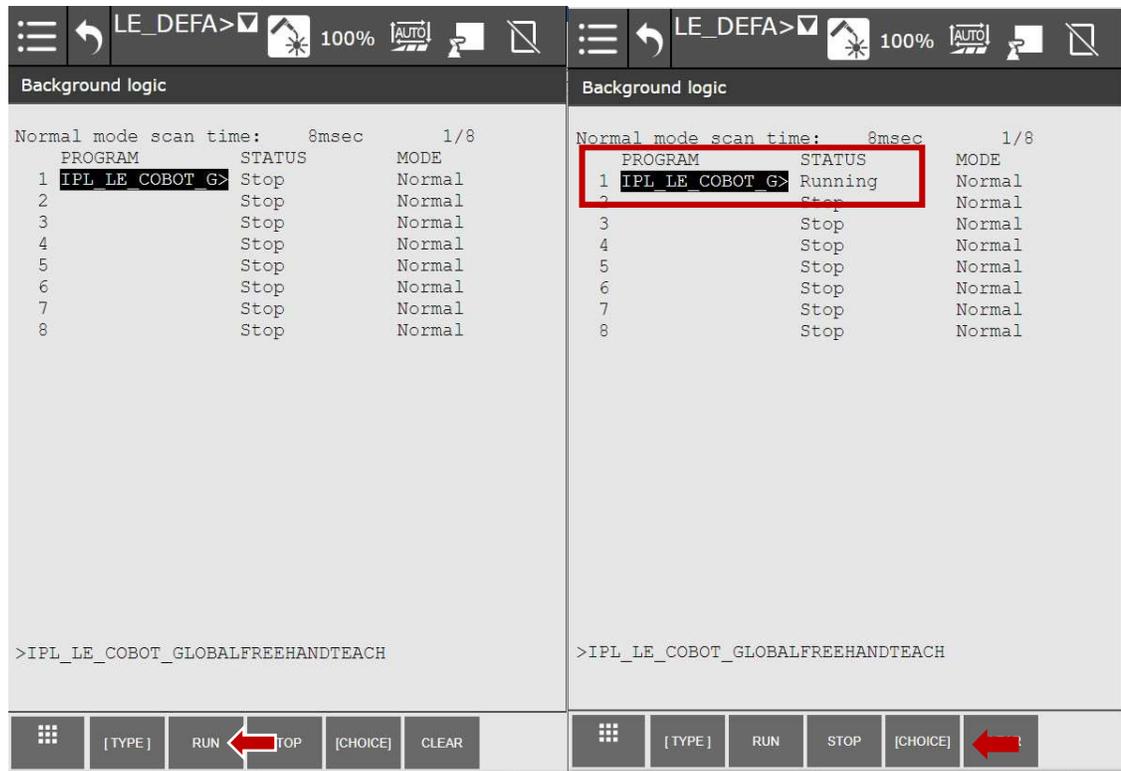


Section 1.5: Cooper App Background Logic RUN

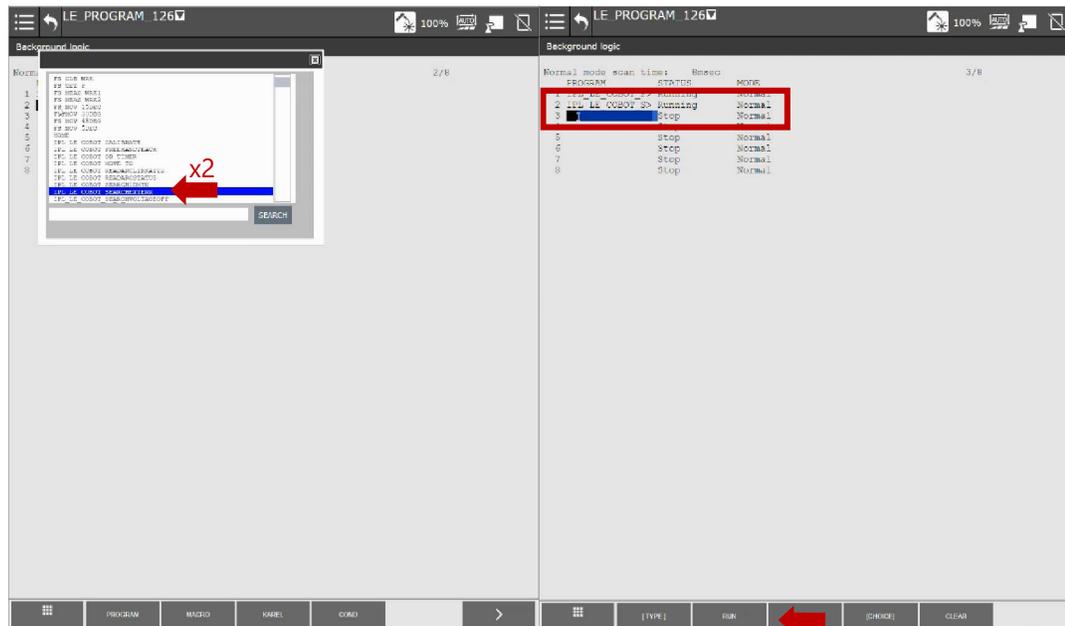
- From the FANUC verbose version of the dropdown navigate to SETUP / BG Logic. From the BG Logic Screen press [CHOICE] and double click to select IPL_LE_COBOT_FREEHANDTEACH. Select Run to start the program.



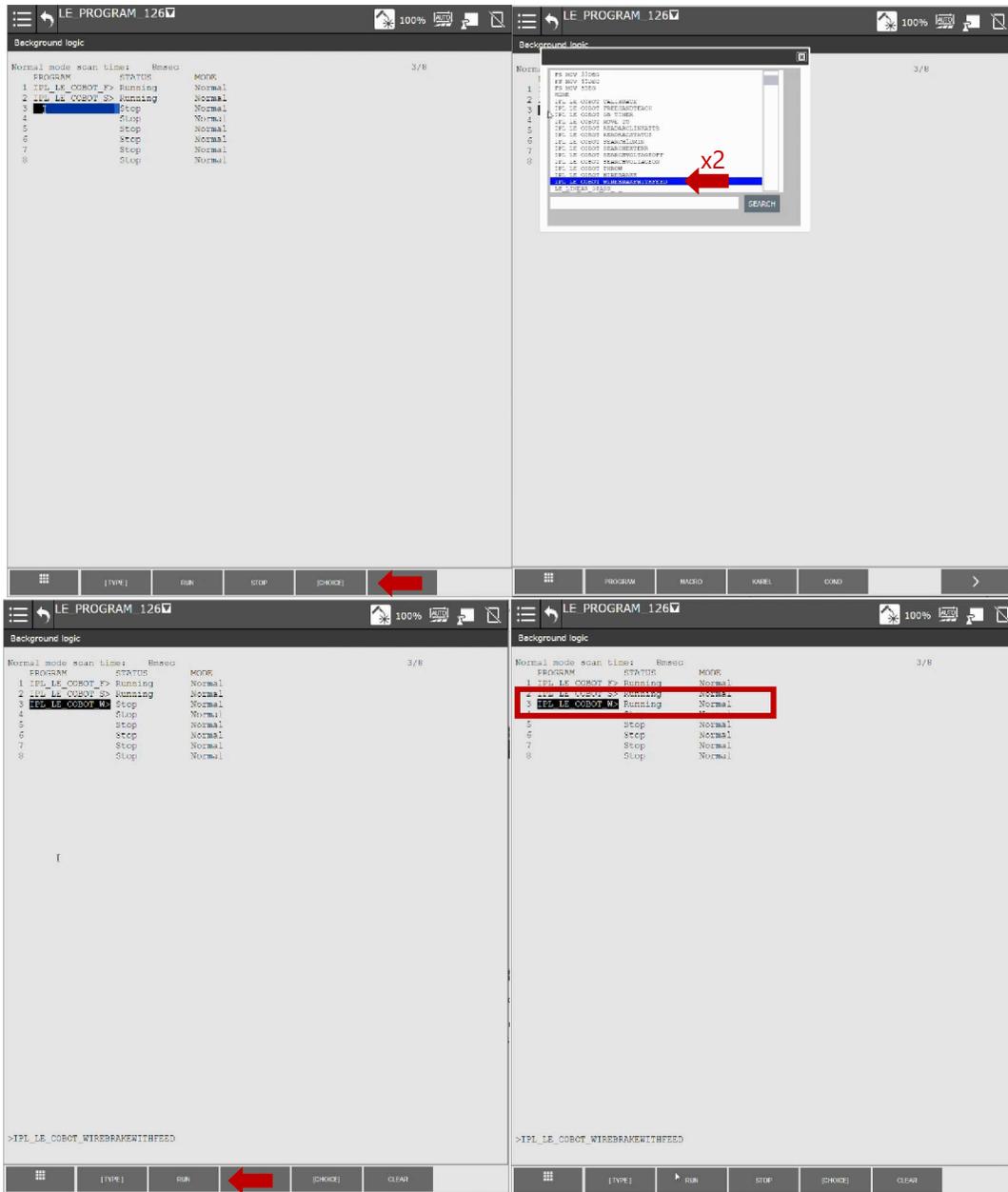
Cooper App Plugin Update



- (2) If the user has been licensed for Touch Sensing, select the next available BG Logic slot, press [CHOICE], select IPL_LE_COBOT_SEARCHEXTERR by double clicking on the list. Click Run to start the program.

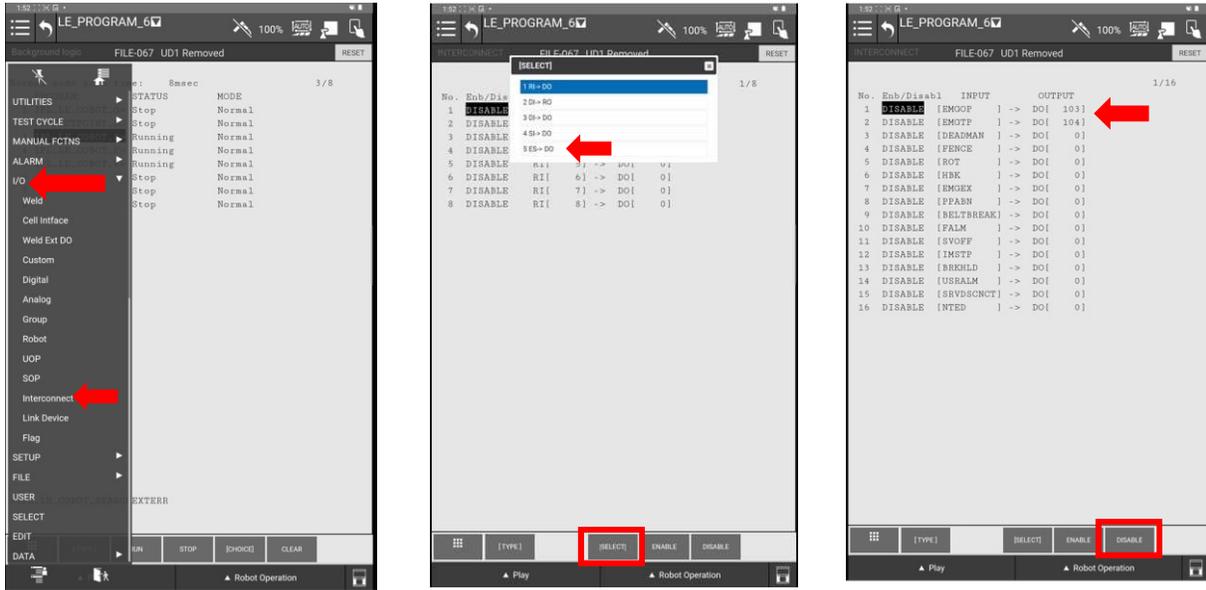


- (3) Finally, if a wire break torch is being used on the system, select the next available BG Logic slot, press [CHOICE]. If the wire break torch has a button to feed wire, select IPL_LE_COBOT_WIREBREAKWITHFEED by double clicking, otherwise select IPL_LE_COBOT_WIREBREAK by double clicking and Run the program.

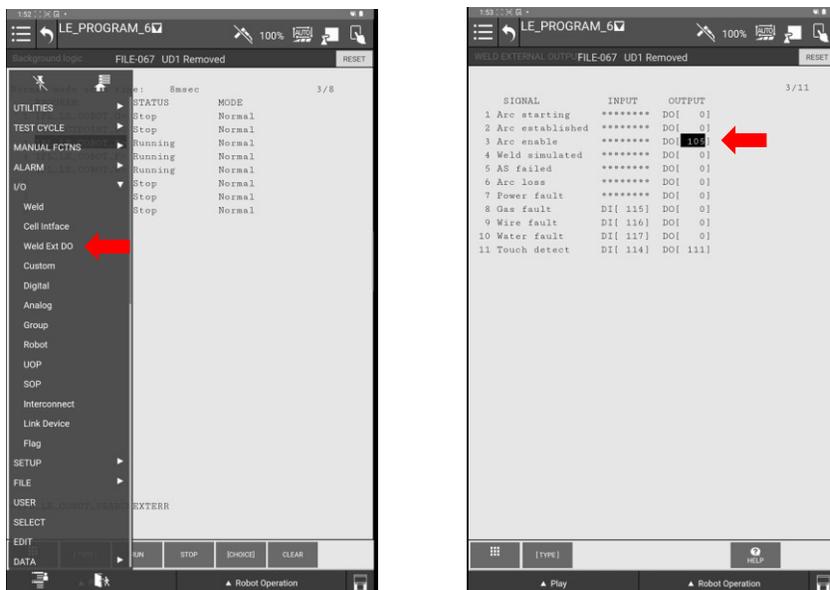


Section 1.6: IO Setup

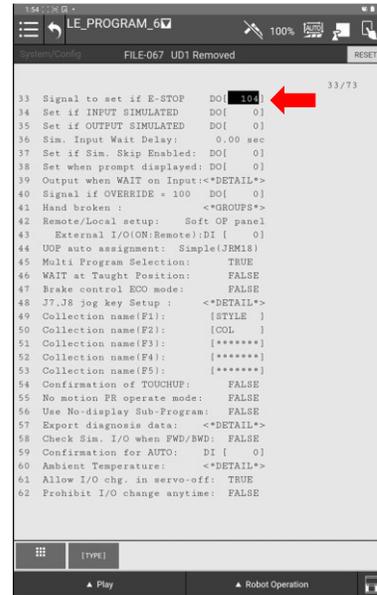
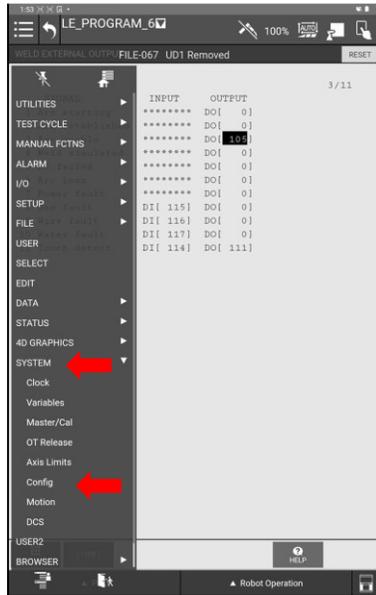
- (1) From the FANUC verbose version of the dropdown navigate to IO / INTERCONNECT. Press [SELECT] and choose ES->DO. Disable EMGOP and EMGTP.



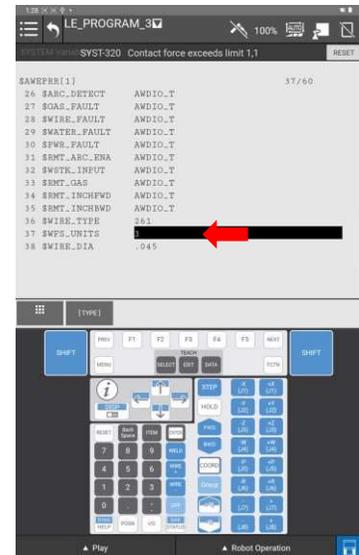
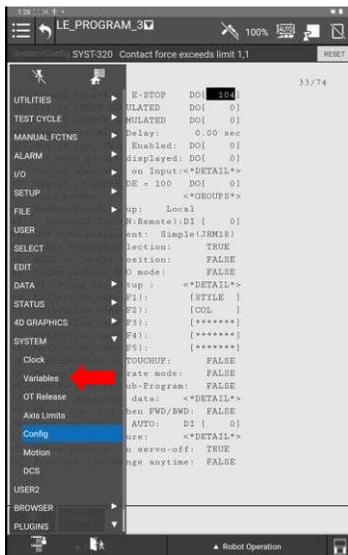
- (2) From the FANUC verbose version of the dropdown navigate to IO / Weld Ext DO. Set Arc Enable to DO105.



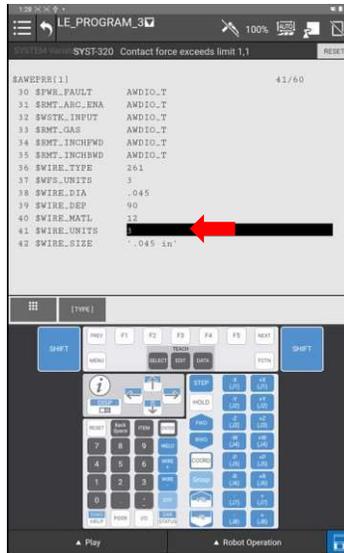
- From the FANUC verbose version of the dropdown navigate to System / Config. Scroll down to item 33 and set the **E-Stop signal to DO104**. Cycle power on the robot after completing these changes.



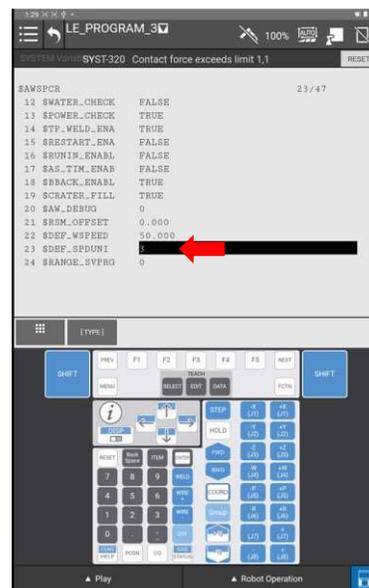
- From the FANUC verbose version of the dropdown navigate to System / Variables. Scroll down to \$aweprr. Note: Variables are in alphabetical order. Click 'Detail' twice and scroll down to find the following variables and ensure they are set as follows:
 \$aweprr[1].\$wfs_units = 3 and \$aweprr[1].\$wire_units = 3



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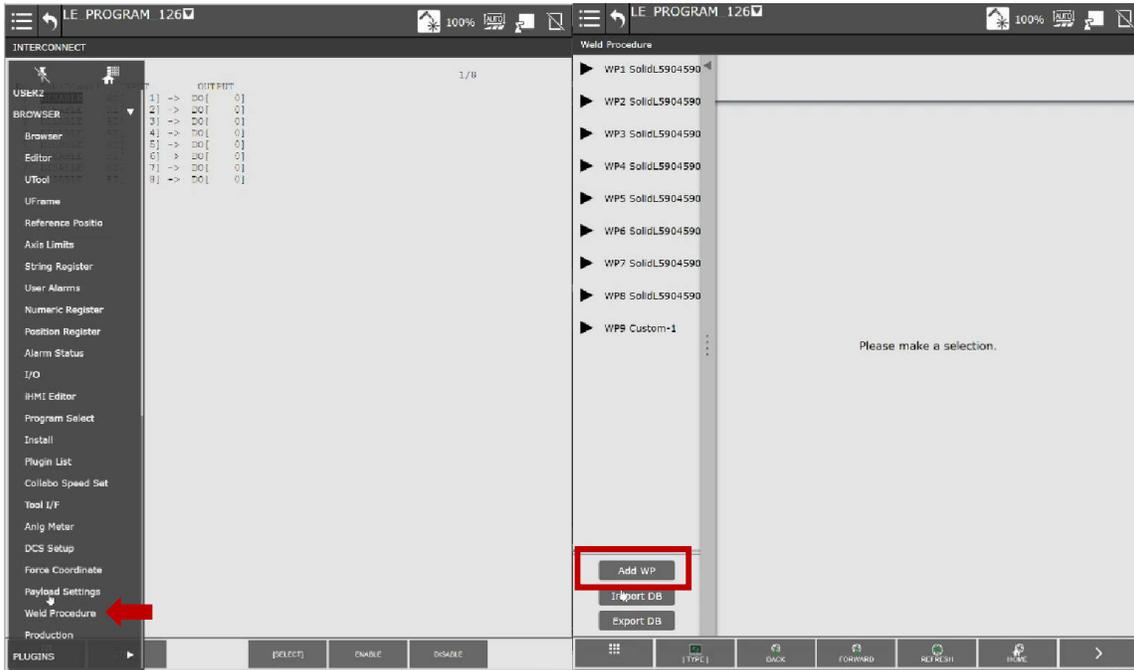


Select 'Prev' twice and navigate to \$awspscr. Click 'Detail' and scroll to find the following variable and ensure it is set as follows: \$awspscr.\$def_spduni = 3

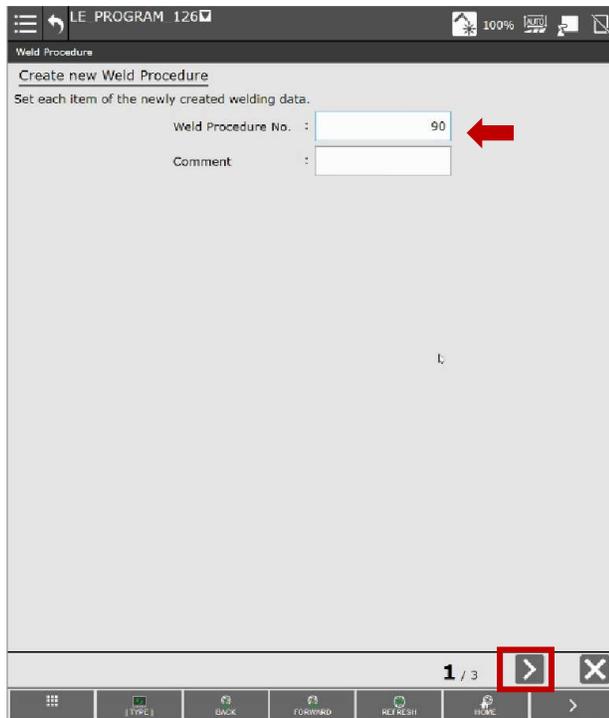


Section 1.7: Weld Procedure Creation

- (1) From the FANUC verbose version of the dropdown navigate to Browser/Weld Procedure and select Add WP.

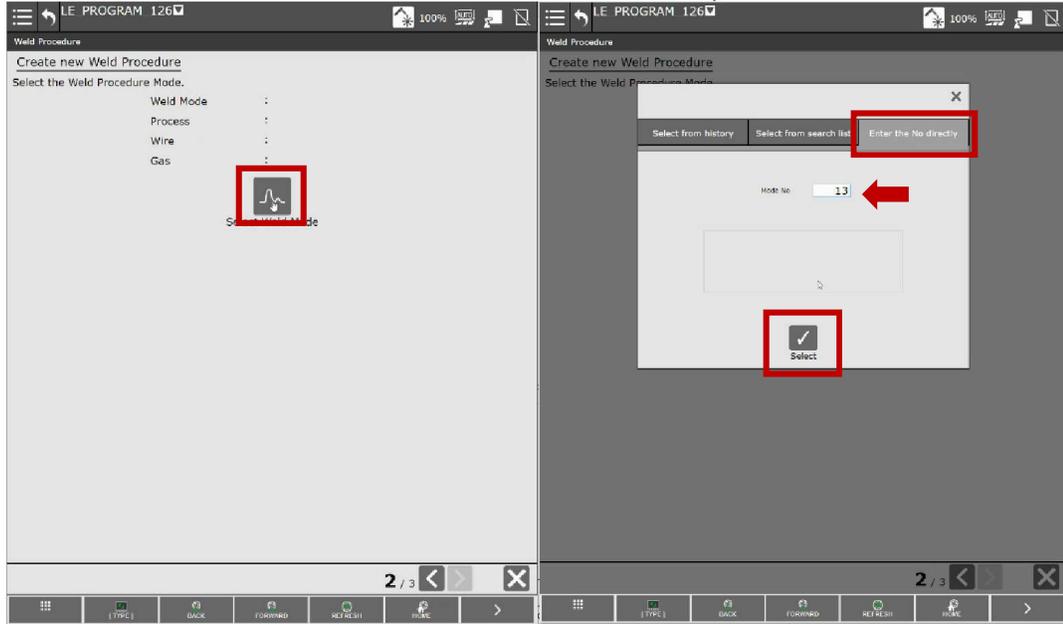


- (2) Set the Weld Procedure No to '90' then click the next arrow.

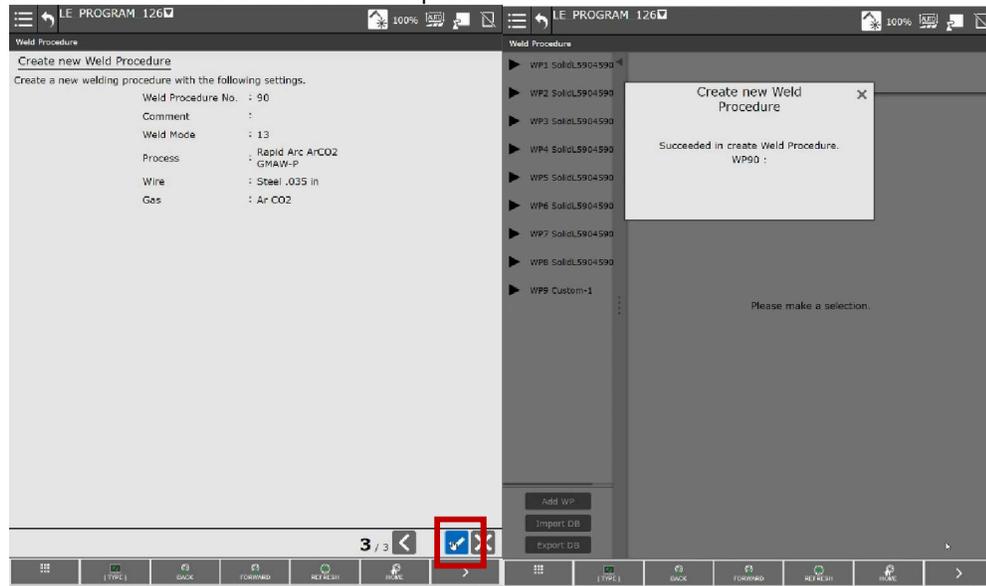


Cooper App Plugin Update

- (3) Click 'Select Weld Mode' and select the tab 'Enter the No directly'. Enter the Mode No as 13 then click 'Select'. Click the next arrow to move to the last step.

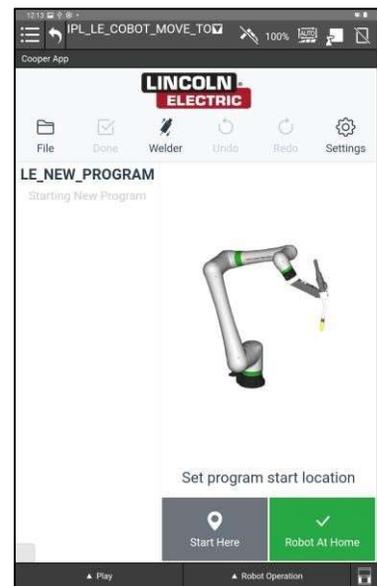
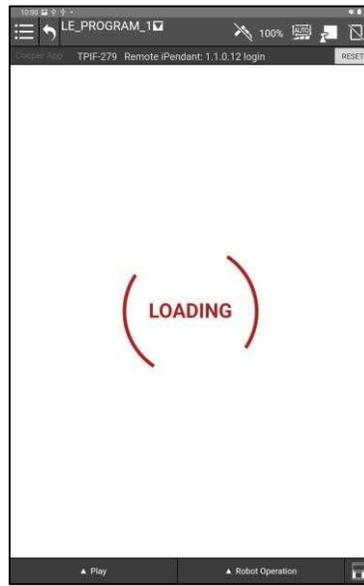
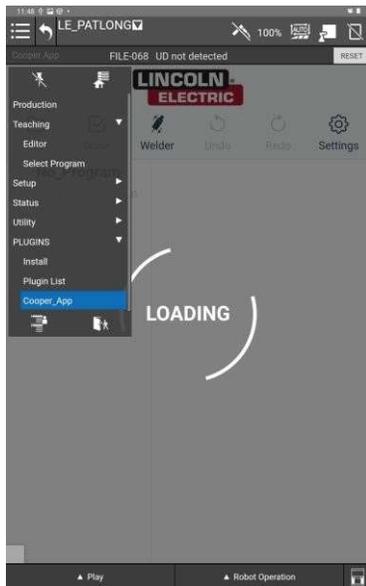


(4) Click the checkmark to create the weld procedure.



Section 1.8: Cooper App Start

From the FANUC reduced version of the dropdown navigate to PLUGINS and click on the Cooper_App plugin to start the application. This will initiate the start-up process and present you with the Cooper App.



Section 1.9: Reload Consumables

Navigate to Settings -> Setup Consumables. Hit 'Clear Selections' and the reselect the appropriate Wire-Type, Wire-Size, and Gas being used with the system. Once selected, click 'OK'. This process will take approximate 10 minutes.

