Shimmybot

Cell Growing Robot Instructions

Before a run:
- Use main switch on front to power on unit
- Use the small round button beside the main power button to turn on the heating/cooling system
  - Set incubation temperature using the buttons on the front display panel
    - Turn on at least 1 hour ahead if not running at room temperature (unit operates in range 15-35ºC)
- Turn on computer (pass: admin)
- Right-click MibAiServer > run as Admin (this runs in the background & controls the plate reader)
- Right-click SQLvisualBatchConfig (VBC) > run as Admin (this controls scheduling)
  - Run Robosoft
  - Press the red button in the top menu bar to go online
  - Open door to visually confirm gripper arm is not blocked
  - Click the Home button (house icon in the top menu bar) to send the arm to the home position
- In Robosoft Pro, click Load Procedure > CG-12 initialization > CG-12 initialize -> load
  - click blue & green "play" icon on the left menu bar
  - A new window will pop up after a moment - this is the AI tester, which runs in background.
  - Wait for green rectangle that says "true" (in lower left of AI tester).

Set up a program in VBC:
- Delete previous program
- Click "New" in the lower right to set up a new program
- Enter cycle interval (how often to initiate a read cycle)
- Enter temperature (350 = 35.0º) - this does not set the incubator temperature - it's for the reader itself, and should match the incubator temp.
- Save
- Select program (upper left)
  - Full cycle = carousel fully loaded
  - 1x96 = only top carousel loaded
  - 2x96 = must be used in pairs (upper/lower)
  - save paths
- Set cycle count (lower right)
  - for a 2x procedure, 1 cycle = 2 plates, 2 cycles = 4 plates, etc
  - for a 1x procedure, 1 cycle = 1 plate, 2 cycles = 2 plates, etc
  - The softwar will highlight the diagram where the plates should be loaded
  - Set start and stop time/date OR set # of hours
- Load plates
  - To rotate carousel: in robosoft, run toolbar -> load procedure -> utilities -> rotate car -> select side to be at the gripper position
  - When loading plates A1 must be in top left corner!!!

- S1L1 = side 1 level 1 (=tray 1)
- Click start button in upper left of VBC

Getting your data:
- Documents > data > results text file - all gets dumped to same file!
- Copy data to a new file and then delete everything in the text file.
- General utility generates a new file -> comma delimited flattened

Power down:
- Put in park position: utilities > park
- Shut down computer
- Shut down main power switch on unit & heater/cooler if used

EMERGENCY STOP
If you need to stop a cycle before it's finished, best to do so while idle!
- Close Robosoft
- Stop VBC (don't close)
- Close AI Tester
- Click Run Robosoft
- Turn emergency knob to the right
- In Robosoft, click Joystick to manually move arm (stacker) and carousel (conveyer)

Reader will slow down over time - periodically empty sessions ("se..." files) from SkanIt software folder. SkanIt > Open > select & delete (User: DSGAdmin pass: admin)