Change Log

8-10-2022 thru 8-24-2022

* Process of switching program from CabinetBuildAutomation to PanelBuild\_V1.1 began
* Primary differences in program update:
  + Create a class Part.vb that represents a single part and stores all its variables from the database when being run
  + Implemented communication to the robot using the RTDE interface rather than Raw Ethernet client/server connection. This speeds up the communication between the computer and the robot dramatically and allows for much better error-checking.
  + Added a logging function to store target vs actual tcp coordinates in order to verify the robot’s precision
  + Created new robot programs called \_NewPickPart and \_NewScrewPart, which are able to handle every part, in one program per robot instead of multiple.
  + Added a UI functionality which uses the sizes of the parts in the database to draw the panel and each of its parts. (This is much more dynamic than the previous UI)
  + Robots now run synchronously (previously gripper grabbed part and placed, then screwbot began picking the screw, now they run simultaneously)
  + Overall rearranged the program to be more readable and user-friendly by consolidating functions to specific modules and creating Regions in the main module to separate dissimilar functions.

8-25-2022:

* Added the lightgate functionality to the code under ScrewbotUtilities and added a section for it in the \_NewScrewPart.urp program.

8-29-2022:

* Added disconnect option to RTDE to properly stop receiving data and close the tcp client when the program ends.
* Added a speed change capability to the Robot\_Control tab.
* Changed gripper payload and CoG from 0.925 to 1.09 and 0, 0, 175 to 0, 0, 157 (keeping at 175 for now just because the storage bin is already calibrated for that number)