

Automated Bottling System (ABS)

Group project using SystemJ and Java for COMPSYS 704 Advanced Embedded Systems in 2025.

A group project where we developed an Automated Bottling System, ABS, (manufacturing component). This bottles the liquids produced by mixing two liquids based on customised recipes before shipping them to the customers.

Attention

Current code doesn't functioning, Tianyi and Jack rewrite the whole ABS in lab3 fold, logic seems right but viz meets problems , the signal E cannot be received somehow.

Contributors

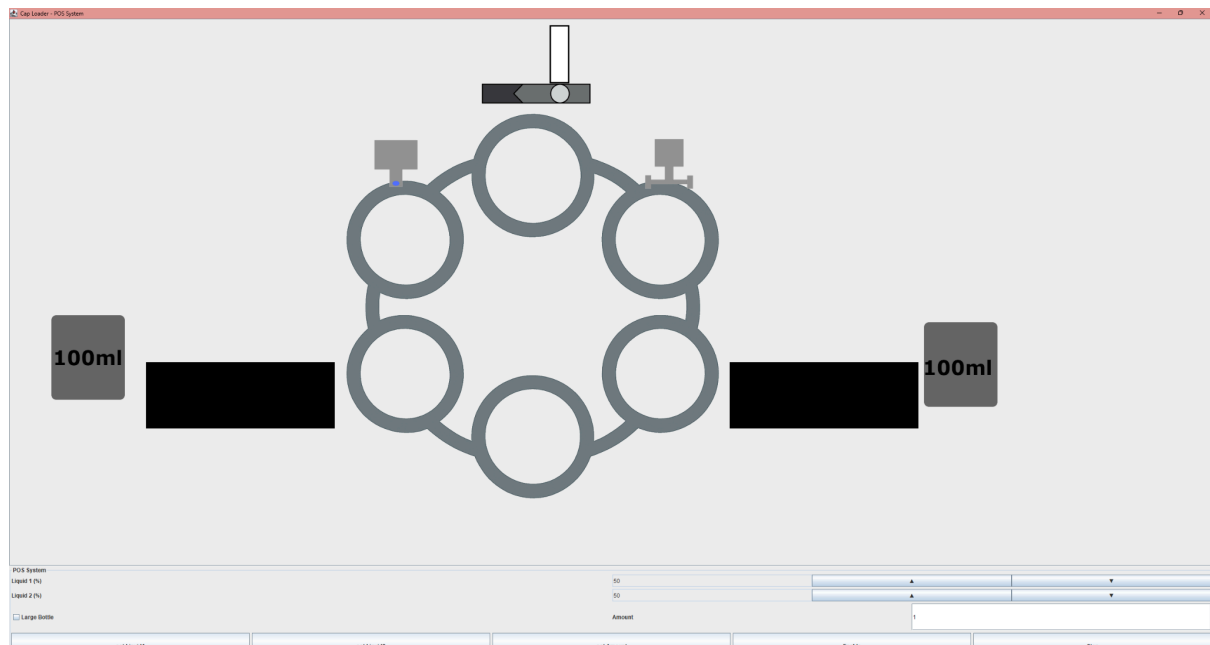
- [Tianyi Hu]
- [Jack Wang]
- [Tai Martinez Grant]
- [Albert Paik]

Requirements

- jre1.8
- Build the ABS system using the build all file provided and jre 1.8 and then refresh.
- sysjetnapi (contained in the lab files.)

Steps:

- BuildAll.launch
- Runcontrollerlaunch
- RunPlant.launch
- RunSystemcoordinator.launch



- Liquid 1/2 : The button attached to them allows for +/- 10 of the ratio. When you change one of them, the other one will change automatically to maintain a total of 100%

- Large Bottle: This check box allows you to choose the size of the bottle. When ticked the 100ml rectangles will change to 200ml to show that the bottle size has changed, and appropriate storage is prepared.
- Amount: Allows to change the amount of the bottle, requires integers.
- set Liquid1/2: send the value to systemCoordinator
- set Amount: send the value to systemCoordinator, before using it, requires changing the amount, or an error occurs.
- Enable: start the order(system), also print the liquid ratio and amount on the console.
- Stop: stop the system (cannot be visualized due to the UI not fully working).