vTaskUI State Machine

SM_SERVICING
Display Out of Order message on LCD due to active Technician Servicing

SM_IDLE
Display "Select item" message on LCD

Init

SM_CYCLE
Cycle currently selected drink

SM_TEMP_BAD
Display Out of Order message on LCD due to Temperature malfunction

SM_DISPLAY_SELECTION
Show current Drink Cost on LCD

If servicing flag is cleared

If servicing flag is set

If 3s has elapsed with no input

If cycle drink button is pressed

If temperature is good

If temperature is bad

Receive Message from Queue

SM_VEND_FAIL
Display vending error message on LCD: Missing Credit or Out of Stock

SM_DISPLAY_CREDIT
Show customer Credit on LCD

SM_VEND_SUCCESS
Display vending message and credit return on LCD

If vending button is pressed

If add quarter button is pressed

SM_MAX_CREDIT
Display "Max Credit" message on LCD

If vending is successful

SM_TRY_VENDING
Attempt to sell selected drink

SM_ADD_QUARTER
Add 25 cents to machine

If there is already 5$ in the machine

If vending is not successful

If there is less than 5$ in the machine