Sustainable Fridge User Manual

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Website: http://fridge.onmason.com/

1. Preparing use of the Fridge

Before using the Sustainable Fridge, Please make sure the following is checked,

1. Make sure Power Cord(s) are properly connected to the outlets

2. Make sure both for the 12V Power supply and fridge outlets are connected to the "Normally Off" outlet on the strip,

3. Make sure both the White wire connects to the + side of the "CTRL" and the black wire to the – side of the "CTRL"

4. Make sure the switch on the relay is set to "Reset"

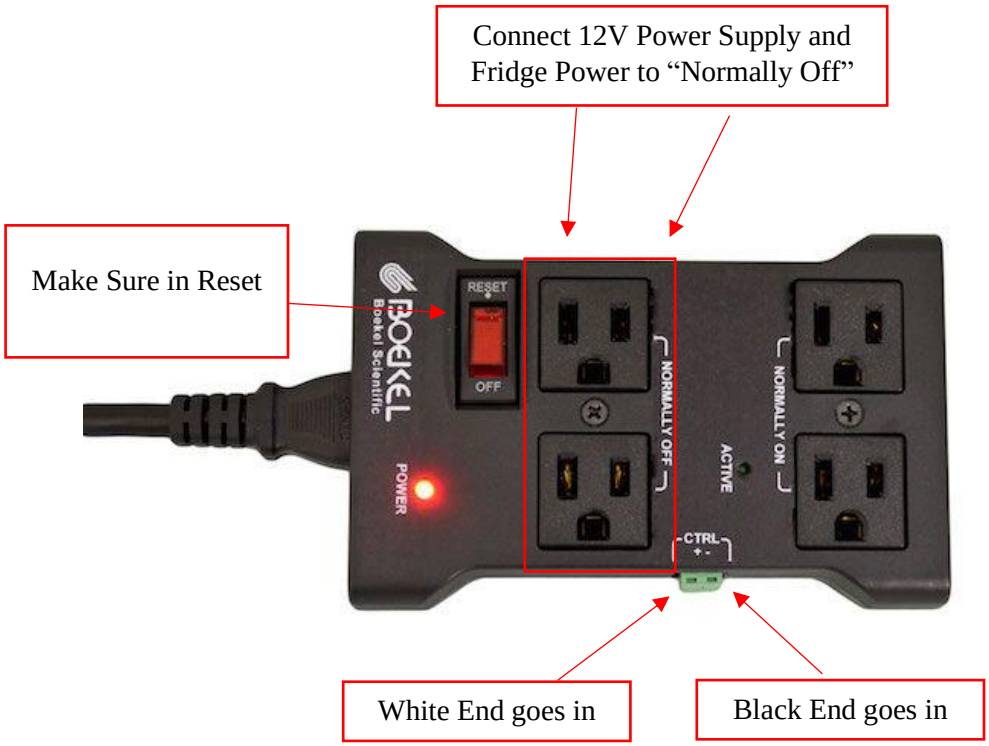
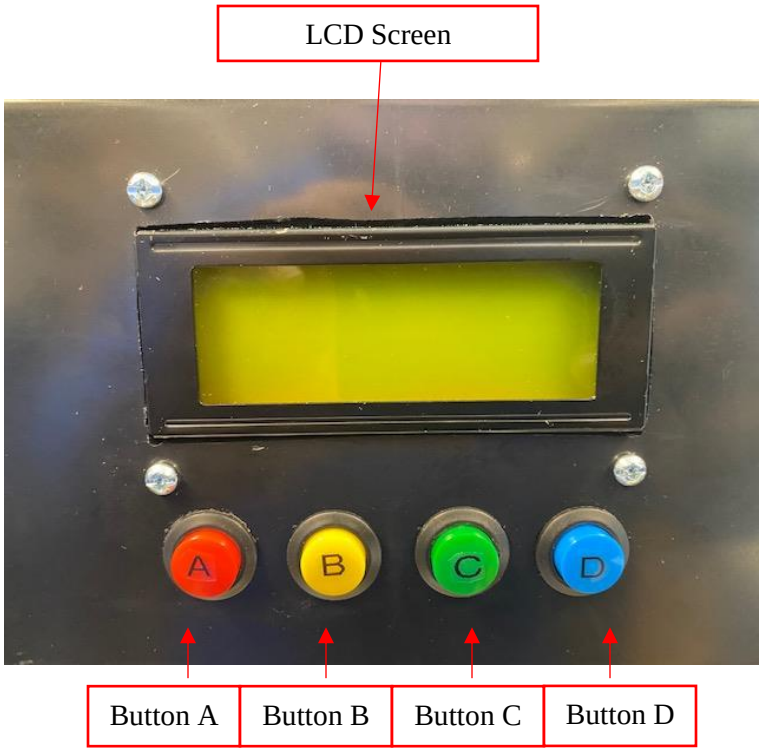


Image from: https://www.boekelsci.com/osbtm-iot-relay-outlet-pn-555005.html

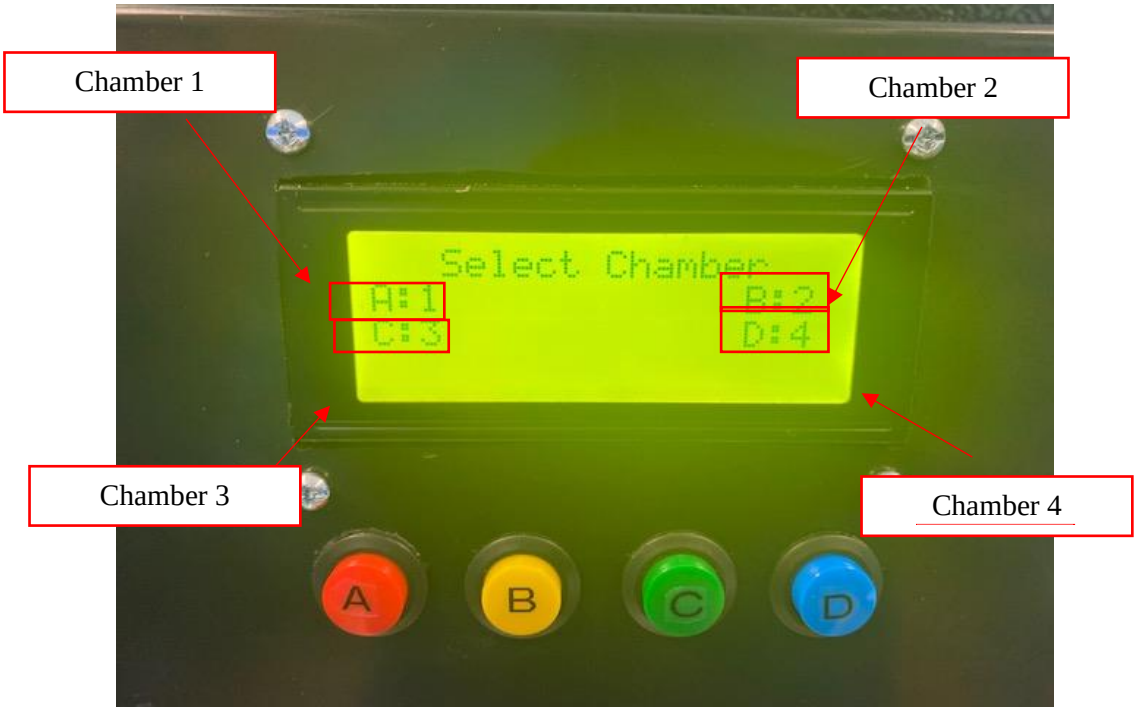
5. Ensure that the water jars in the fridge are filled up at 4/5 to all the way to the brim as shown in page 3

Brim

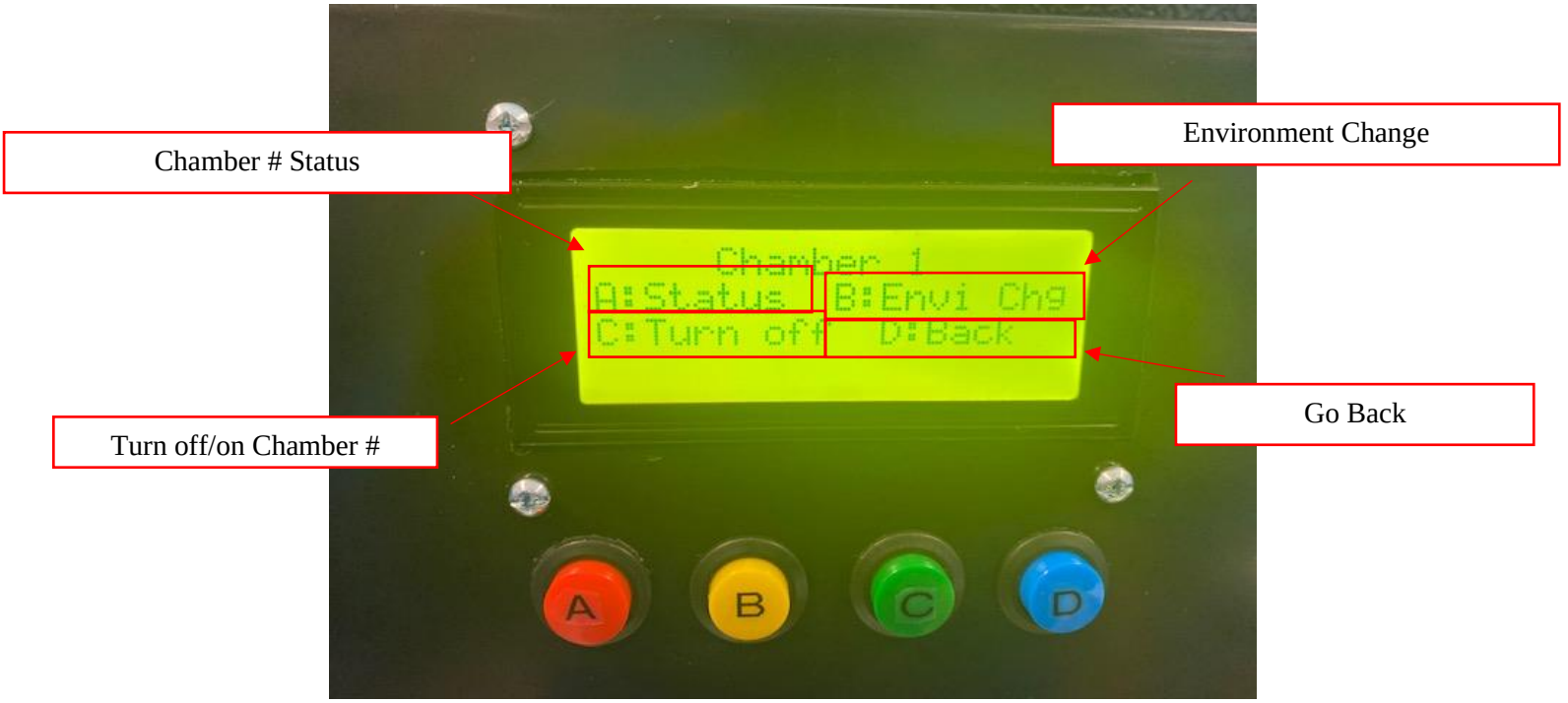
2. Controlling the Fridge + Menu Screens



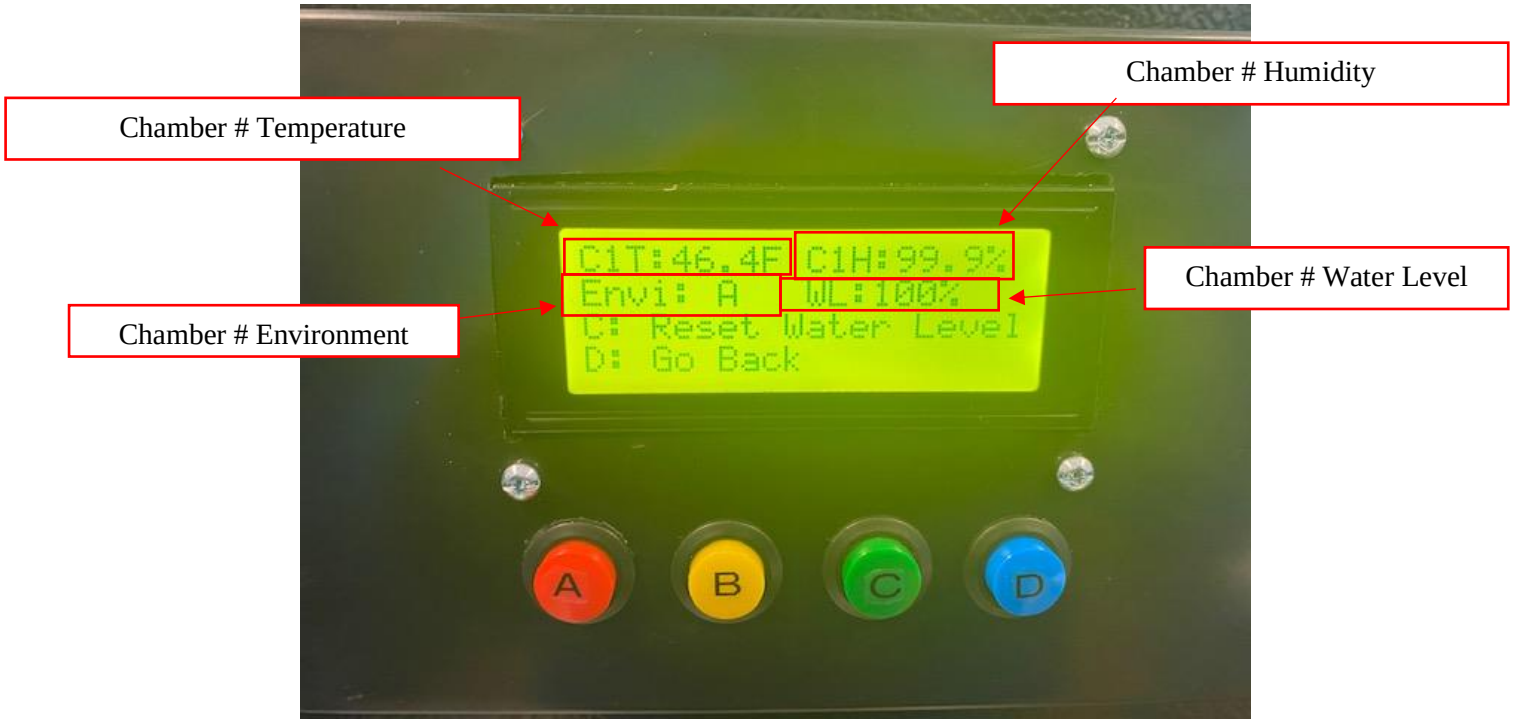
2.1 Selecting Chambers



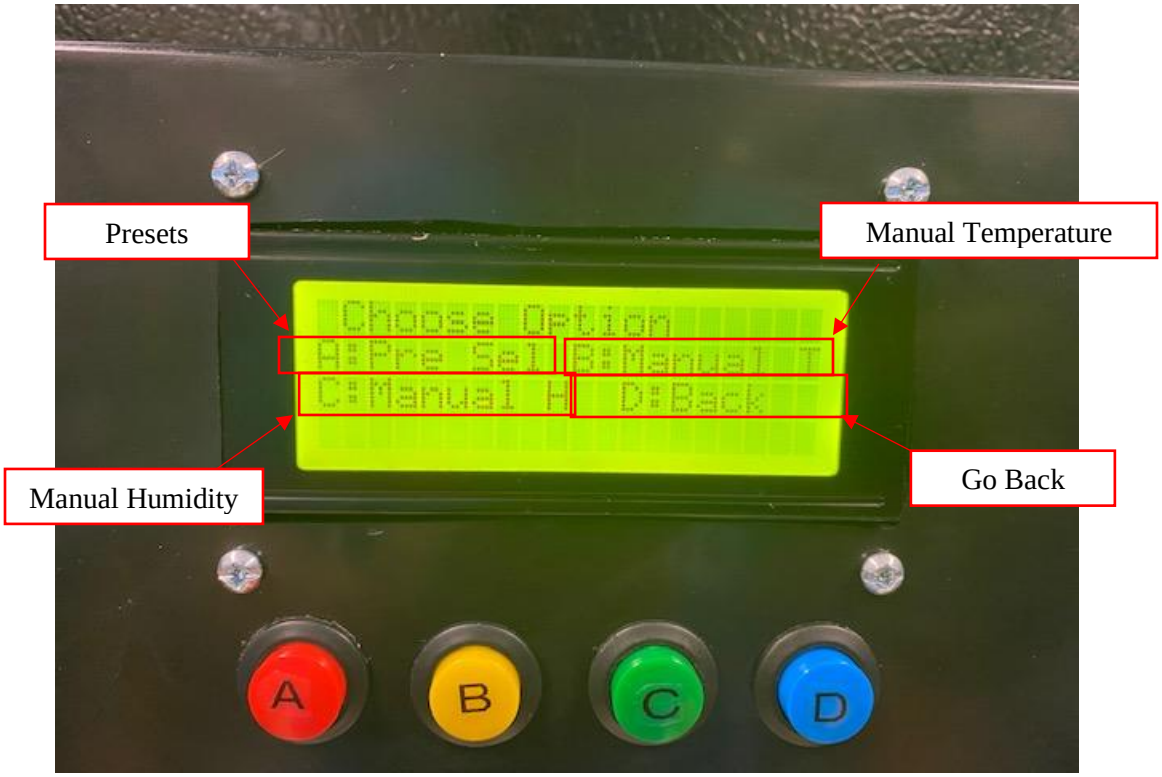
2.2 Chamber # Menu



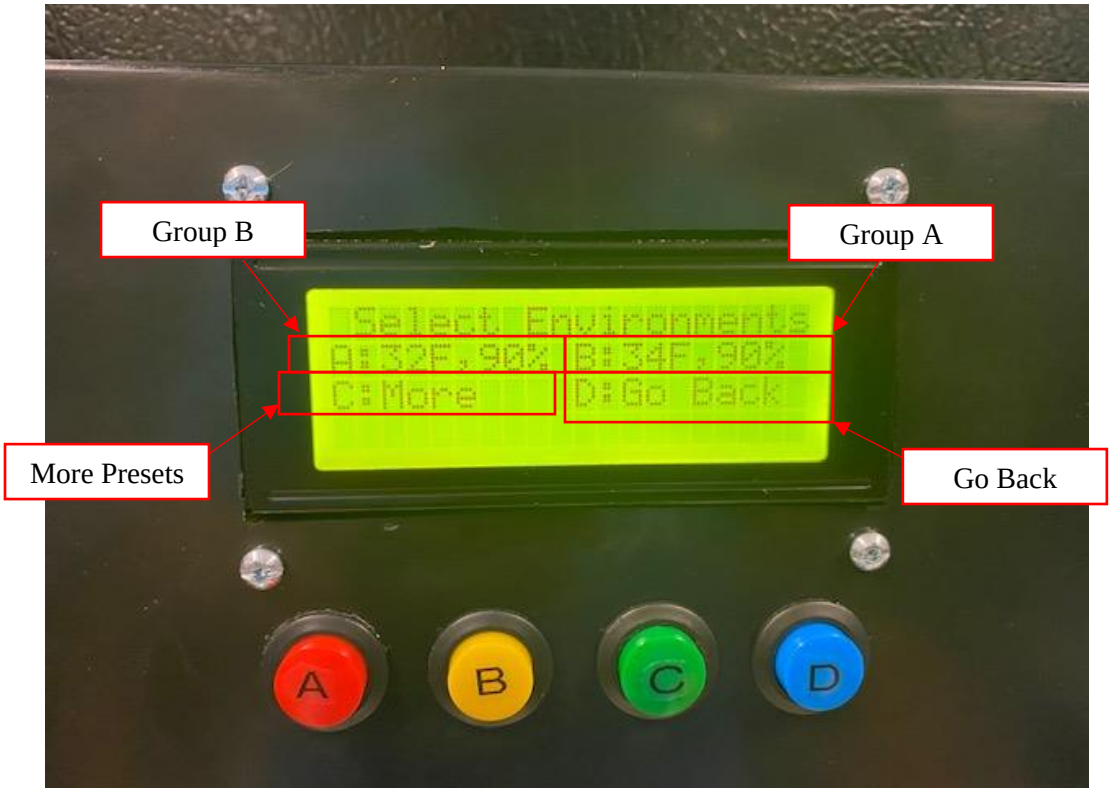
2.3 Chamber # Status



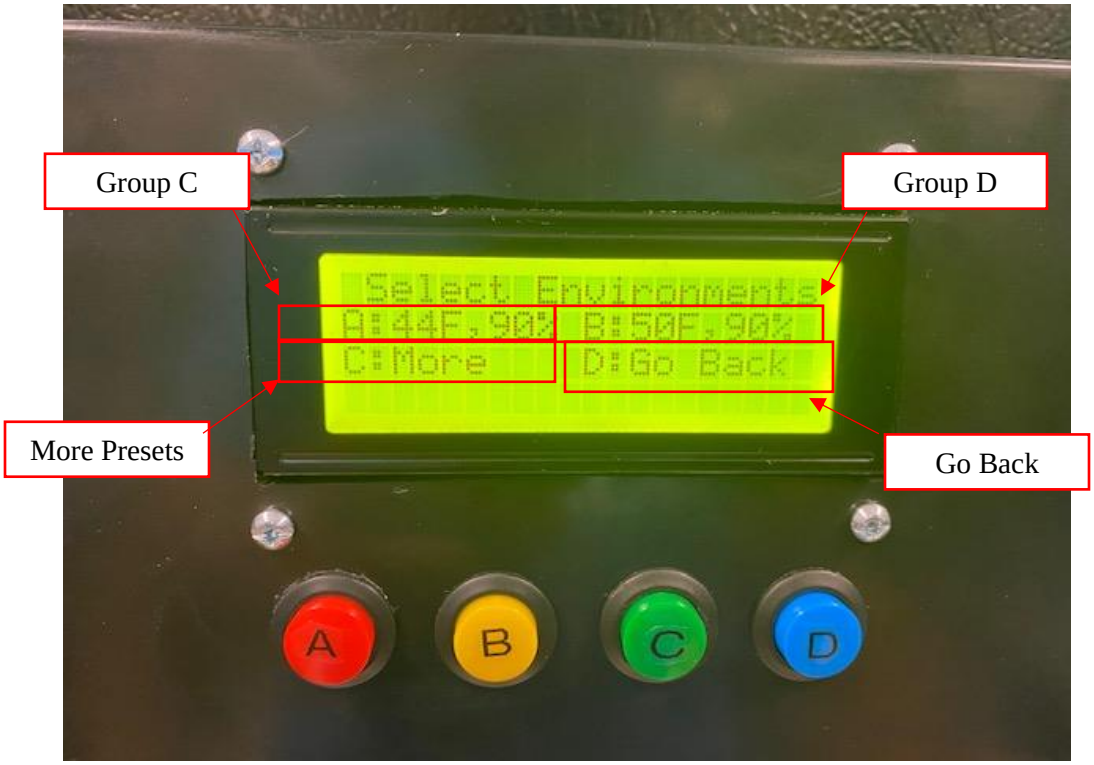
2.4 Selecting Environmnet for Chamber



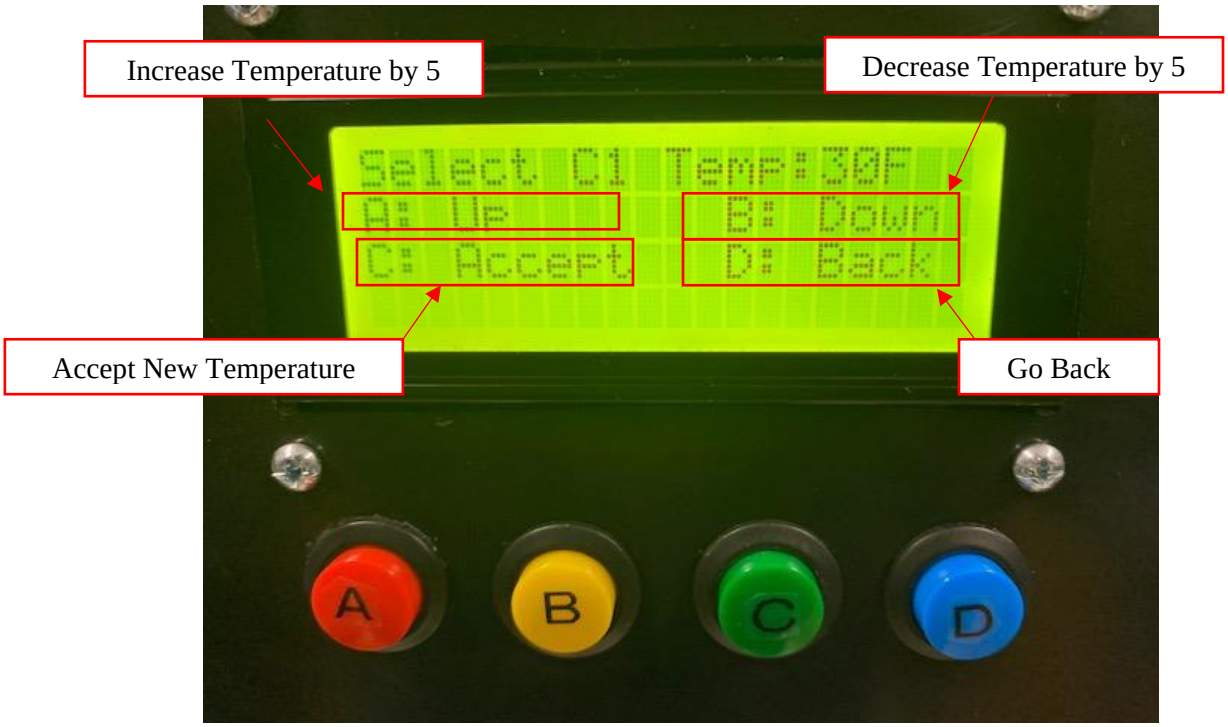
2.5 Preset Option #1



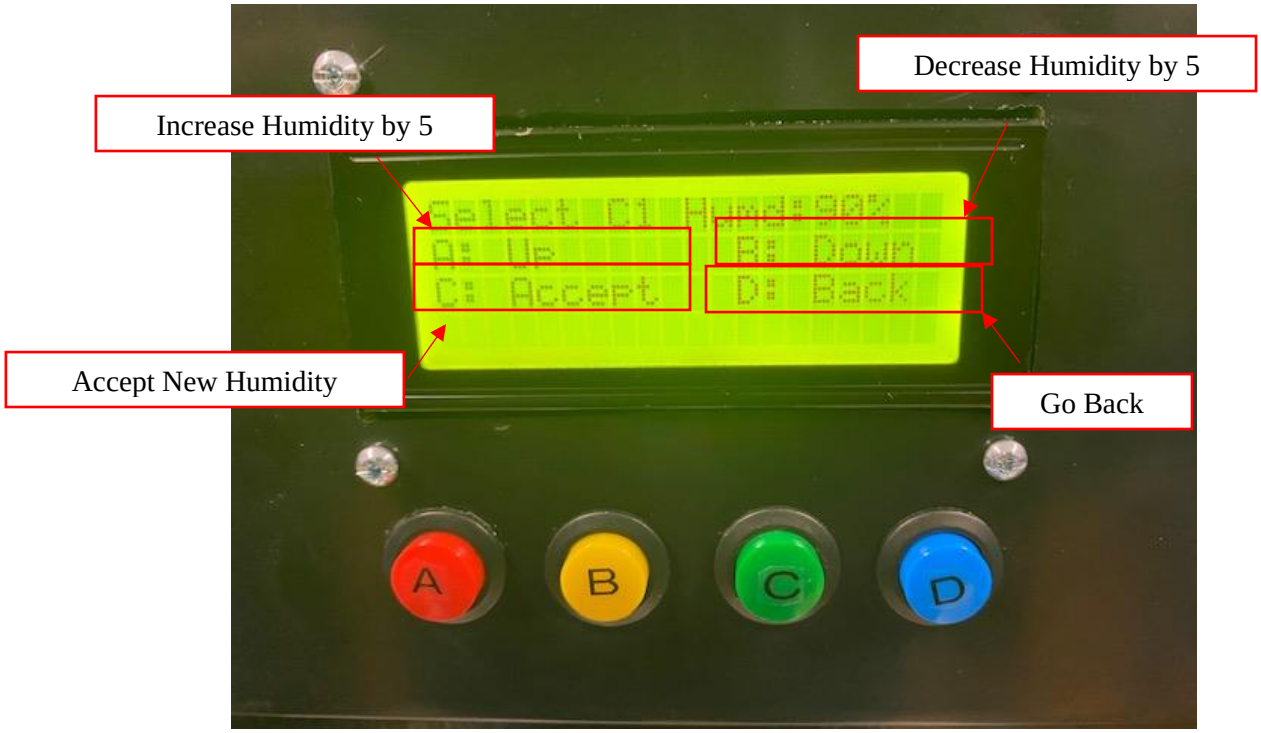
2.6 Preset Option #2



2.7 Adjust Temperature Manually



2.8 Adjust Humidity Manually



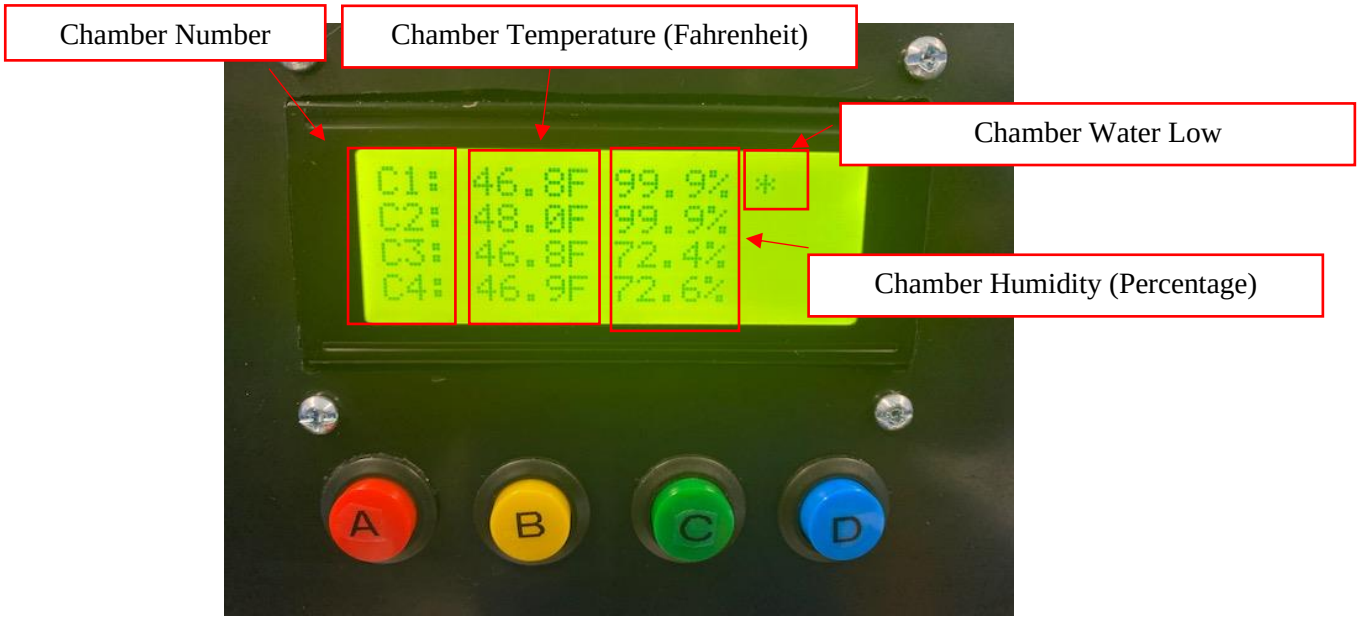
2.9 Preset Environment Groups

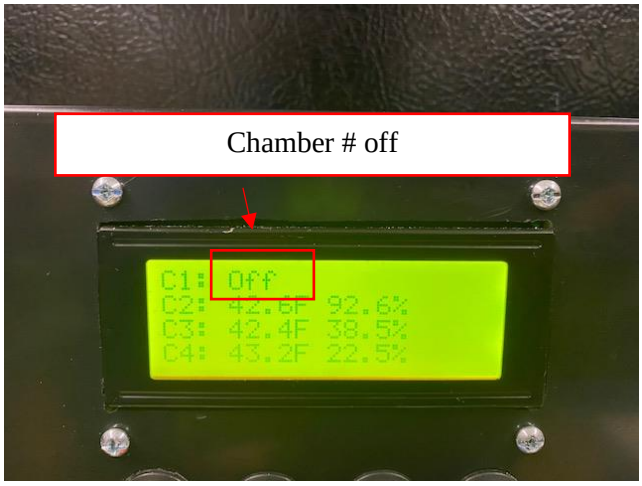
Recommended Groups

Group A: 34 (F) : 90%	Group B: 32 (F) : 90%	Group C: 44 (F) : 90%	Group D: 50 (F) : 90%
Acerola cherry	Celery	Bell pepper	Tomato
Artichoke	Mushrooms	Pineapple	Passion fruit
Rutabaga	Peas	Asparagus	
Tamarind	Arugula	Tomatillo	
Pear	Chard	Okra	
Avocado	Cilantro	Summer squash	
Apple	Collards	Papaya	
	Parsnip		
	Spinach		
	Watercress		

3. Fridge in “Chamber Check” Mode

When using the sustainable fridge, after no inputs from the user for 30 seconds, the fridge will make a list of which chambers have the greatest difference with the temperature and their preset temperature. With the differences measured it will focus at one chamber at a time adjusting its temperature with the solenoid valves and humidity through the misters. Once then it will move on to the next chamber in the list and go to the end. Once it reaches the end of the list it will repeat the list, updating the temperature and humidity. This will repeat till it needs to adjust one of the chamber’s temperature/humidity till the fridge reaches the appropriate levels. If the chamber is set to off, it will display “Off” to the Chamber assigned to it is off and will be checked





4. Changing Environments (Using Presets)

Procedure:

1. If the button has not been pressed, press any of the 4 buttons to go to the select chamber screen, please do not press any buttons while changing screens
2. Press according to the screen which chamber you would like to edit
3. Then press button B
4. Then press button A
5. Then pick any of the presets in the menu or press button C to switch between the two parts
6. You will get a prompt telling it is done and press any button to go back

Note: A changed environment by a user will be first to be checked on before the other chambers

Visual Map

5. Changing Environments (Manual Temperature)

Procedure:

1. If the button has not been pressed, press any of the 4 buttons to go to the select chamber screen, please do not press any buttons while changing screens
2. Press according to the screen which chamber you would like to edit
3. Then press button B
4. Then press button B
5. Then adjust the temperature by adjusting it using button A or B and accept with button C
6. You will get a prompt telling it is done and press any button to go back

Note: A changed environment by a user will be first to be checked on before the other chambers

Visual Map

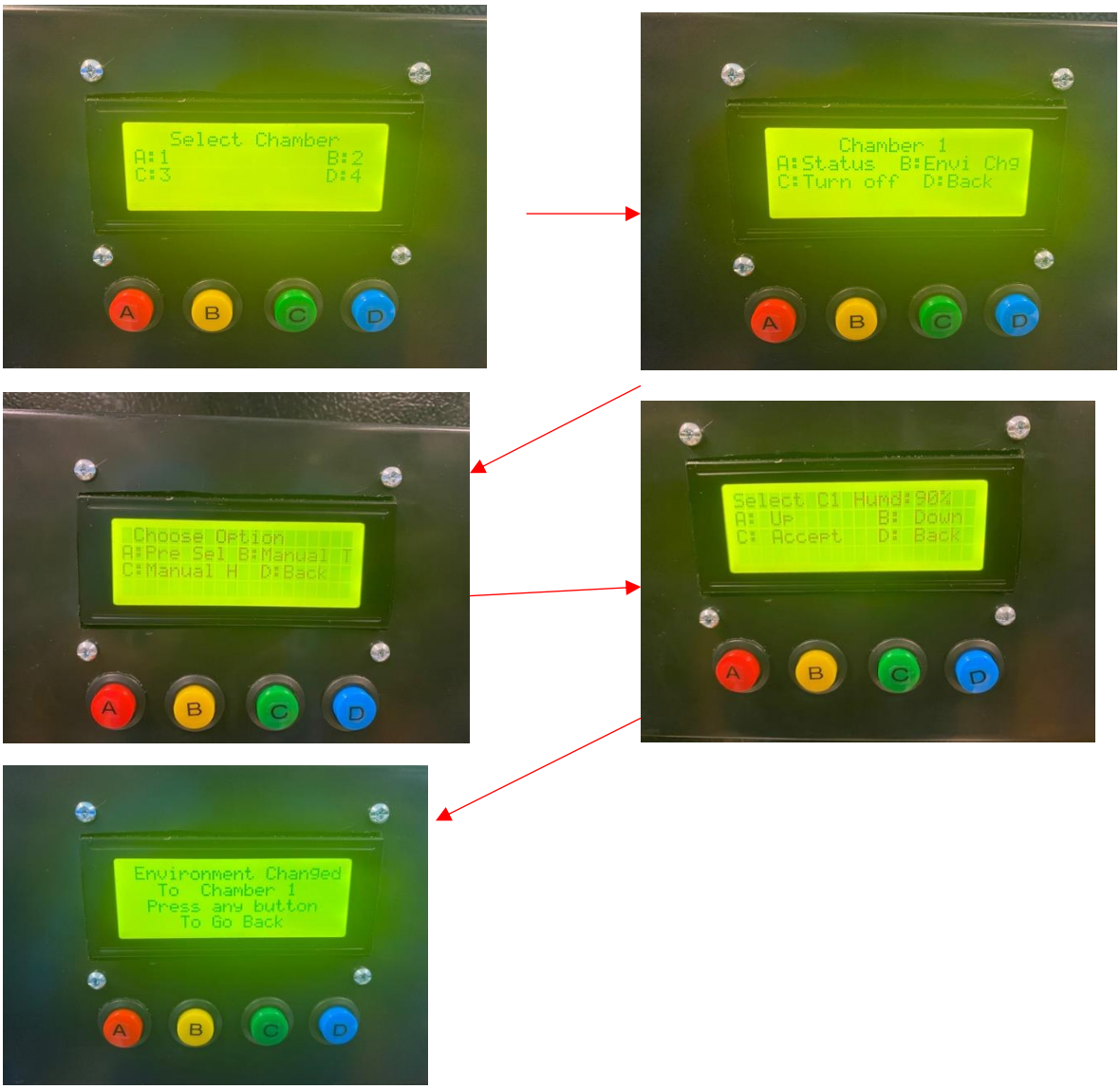
6. Changing Environments (Manual Humidity)

Procedure:

1. If the button has not been pressed, press any of the 4 buttons to go to the select chamber screen, please do not press any buttons while changing screens
2. Press according to the screen which chamber you would like to edit
3. Then press button B
4. Then press button C
5. Then adjust the humidity by adjusting it using button A or B and accept with button C
6. You will get a prompt telling it is done and press any button to go back

Note: A changed environment by a user will be first to be checked on before the other chambers

Visual Map



7. Turing Off/On a Chamber

Procedure:

1. If the button has not been pressed, press any of the 4 buttons to go to the select chamber screen, please do not press any buttons while changing screens
2. Press according to the screen which chamber you would like to edit
3. Then press button C
4. You will get a screen saying the current status of the chamber being on or off
5. Then press any button to go to the back to selecting the chambers

Note: When turning off the chambers, the mister, temperature/humidity sensor, and solenoid valve will be set off. When turned back on it will have the same environment when it was turned off

Visual Map

8. Checking Status of Chambers

Procedure:

1. If the button has not been pressed, press any of the 4 buttons to go to the select chamber screen, please do not press any buttons while changing screens
2. Press according to the screen which chamber you would like to edit
3. Then press button A
4. You will then see the chamber temperature, chamber Humidity, Environment, and calculated level
5. Then press button D to go to the back to the options in step 3

Visual Map

9. Resetting the Water Level Counter

Procedure:

1. If you see a star (*) on the row of the Chamber Check mode than that means you need to refill the water
2. If the button has not been pressed, press any of the 4 buttons to go to the select chamber screen, please do not press any buttons while changing screens
3. Press according to the screen which chamber you would like to edit
4. Then press button A
5. You will then see the chamber temperature, chamber Humidity, Environment, and calculated water level in the.
6. Then press button C to reset the water level
7. You will see it work when the Water Level (WL) reads 100%

Visual Map

10. Turning Off the Fridge

Procedure:

1. If a button has not been pressed, press any of the 4 buttons to go to the select chamber screen, please do not press any buttons while changing screens
2. Press the and hold the buttons in this order, A->B->C->D
3. You will then get a prompt of it saying the fridge will shut down
    a. If you do not see the prompt repeat step 2 again
4. This will turn off the fridge allowing the fridge to be unplugged safely from the wall
5. Turn off the switch on the relay strip

11. Reset the Fridge

Procedure:

1. If a button has not been pressed, press any of the 4 buttons to go to the select chamber screen, please do not press any buttons while changing screens
2. Press the and hold the buttons in this order, D->C->B->A
3. You will then get a prompt on the screen saying it reset,
    a. If you do not see the prompt repeat step 2 again
4. This will then reset the fridge
5. Wait until the screen comes back on