Arduino Mega code is a slightly modified C code. A reference page can be found at the following website, showing Arduino specific functions and their uses: <http://arduino.cc/en/Reference/HomePage>. The Arduino Mega code is is broken into two main pieces. The first peice of code is simply initialization of the Arduino Mega and the pins it will be accessing. It also runs through each of the motors and rotates them to a proper starting position and checks the stock to set empty as appropriate.

The second bit of code is the main loop. This loop will just continually cycle while the machine is running. The loop itself is broken into two sub-loops.

The first sub-loop waits for proper authorization to be given by the Raspberry Pi. Presumably a card swipe will be used by the Raspberry Pi to give authorization, though any authorization methods would work. All authorization checks should be done here. Currently, the code automatically authorizes a user. This is for testing purposes only.

The second sub-loop continuously cycles a for-loop waiting for button-press input corresponding to a still stocked soda. At this point the controller will power a motor, have it remained powered until it completes its cycle appropriately then end powering a motor while revoking purchasing permission. Currently, the code does not revoke permission, simply leaving it as “true”. If soda stock is low, the The sub-loop will end and return to the first sub-loop, waiting for authorization again.