Test Cases: Travel Floor

* Must travel up one floor
* Must travel down one floor
* Start at any floor
* Max 10
* Min 1
* Wait 2 seconds between each floor

Input Floors

* 1-(1)0 can be added to queue
* Works on stopped floors
* Works on moving floors

Sort Floor

* Floor sorted in direction of travel
* No duplicates requests
* Floors not on travel path are correctly sorted at end

Stop at Floor

* Detect requested floor
* Call open door
* Wait 3 seconds
* Call close door

Close Door

* Spin motor when door closing
* Interrupt waiting sequence
* Does not interrupt open door sequence

Emergency

* If ‘\*” pressed, initiate emergency
* If door open and not on floor 1, close door
* Once door closed, move to floor 1
* Open door on floor 1
* Stay open for 10 seconds
* Close door after 10 seconds

Halt on floor 1

* Blink strobe light several times per second for entire emergency duration
* Display “Emergency” on top line of LCD
* Display “Call 000” on bottom line of LCD
* Resume normal function of lift when ‘\*’ pressed

Show Floor

* Display floor number through LEDs
* If stopped, flash LEDs several times per second
* Display “Current Floor (X)” on top line of LCD
* Display “Next Stop (Y)” on bottom line of LCD

Open Door

* Spin motor when door opening
* Motor speed observably different to close door
* Interrupt close door sequence
* If button held down while waiting, extend waiting sequence until button release
* Does not open door while lift is moving
* GG