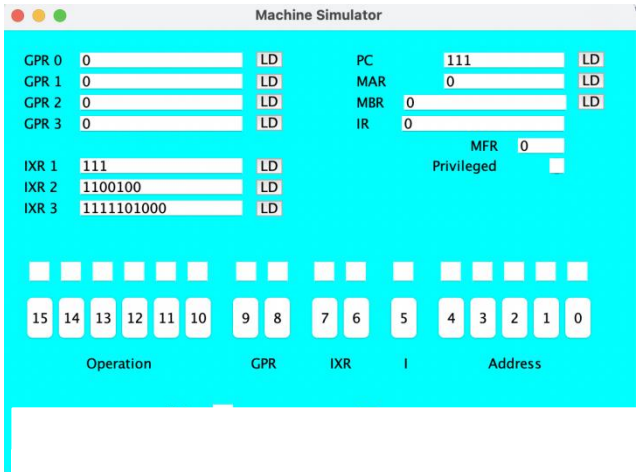
User Guide

1. Start machine

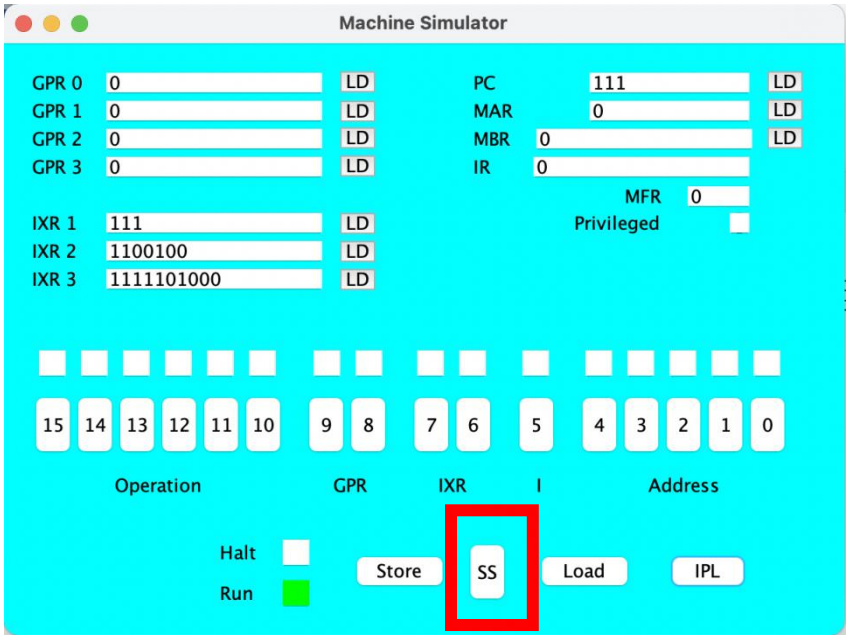
1)

press IPL button to start and get initial status.

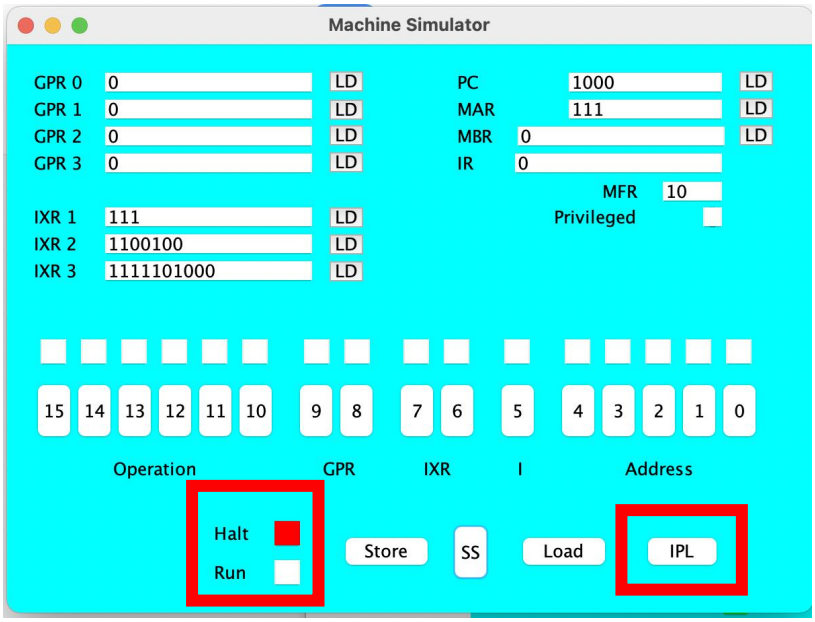


2. Run instructions in IPL

1) If the IPL.txt consist instructions starting from location 0, use SS button to run the instructions in the IPL.txt one by one. (opcode include halt, LDR, STR and LDA, LDX, STX which are 0, 1, 2, 3, 33, 34)



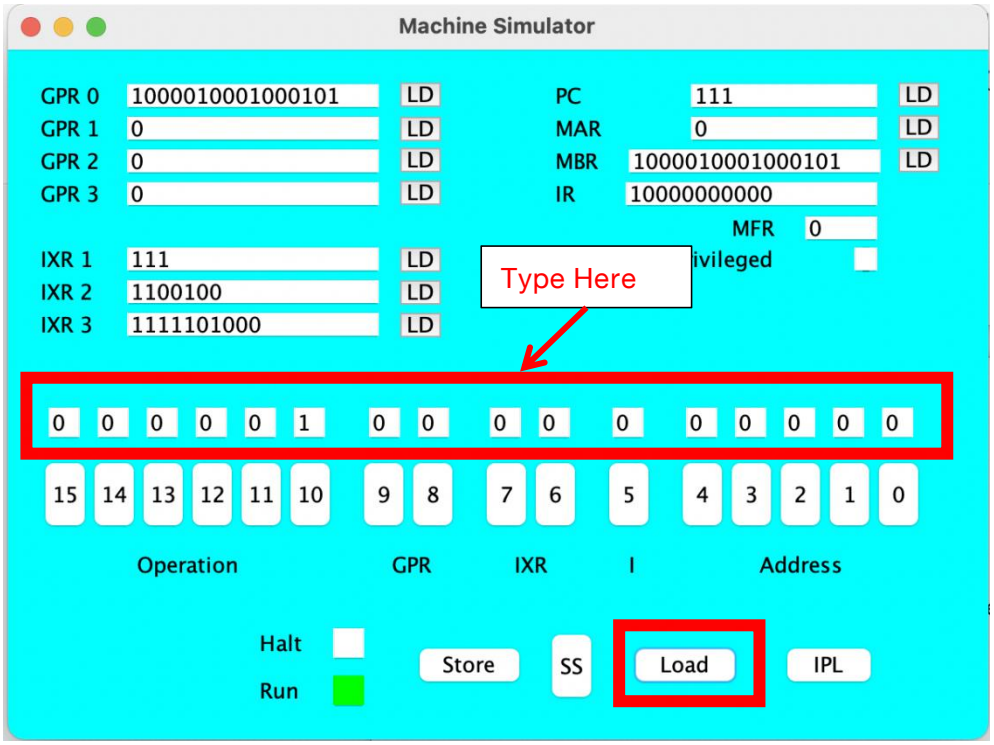
2) If the machine run all the instructions in the IPL.txt and reach the end or get the halt instruction which is 0, or the IPL.txt does not consists correct instructions, the machine will halt. Then the machine will not work anymore. Then you should press IPL button to restart the machine.



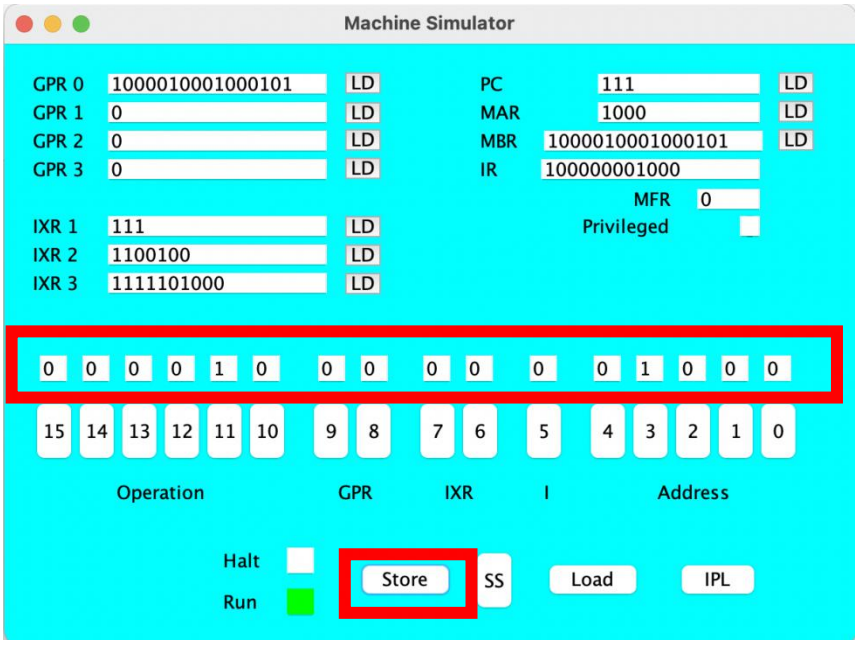
3. load and store button

1) If the IPL.txt is not instructions, then you can use load and store button to get the data from the memory or write the data to the memory.

2) For load instruction, type the correct instructions in the textbox with corrct opcode “000001” (If the opcode is not correct, the machine will halt and need to be restarted using IPL button), then click the Load button. Then you can see the changes in the register above.

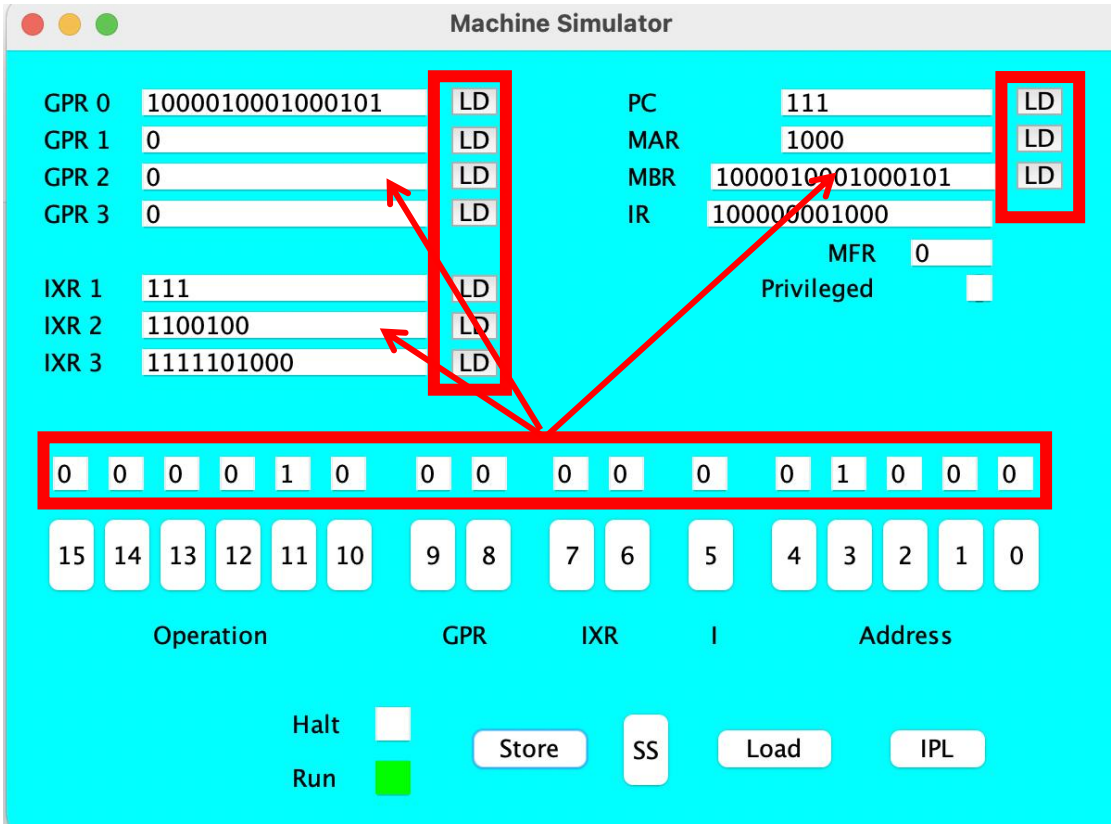


3) For store instruction, the opcode should be “000010”



4. LD button

We can use the “LD” buttons to change the data in any register if the data is not beyond the limitation.



5. Machine Fault

If the machine halts, we can see the machine fault status in the “MFR” textbox.
“0” means accessing to the reserved location, “10” means the opcode is not correct, “11” means accessing the location in the memory beyond limitation.