

**Experiment Number – 6****Duration - 2 Hours****Title of Experiment –**

1. Understanding interlock

**Objective of the Experiment**

The students are required to understand the following –

- Functioning of Timers / Limit Switch / Level Sensors / Motors

**Intended Learning Outcomes :** At the end of the experiment the student should be able to do

1. PLC Programming – Using memory bit

**Software/Equipment/Tools Required:**

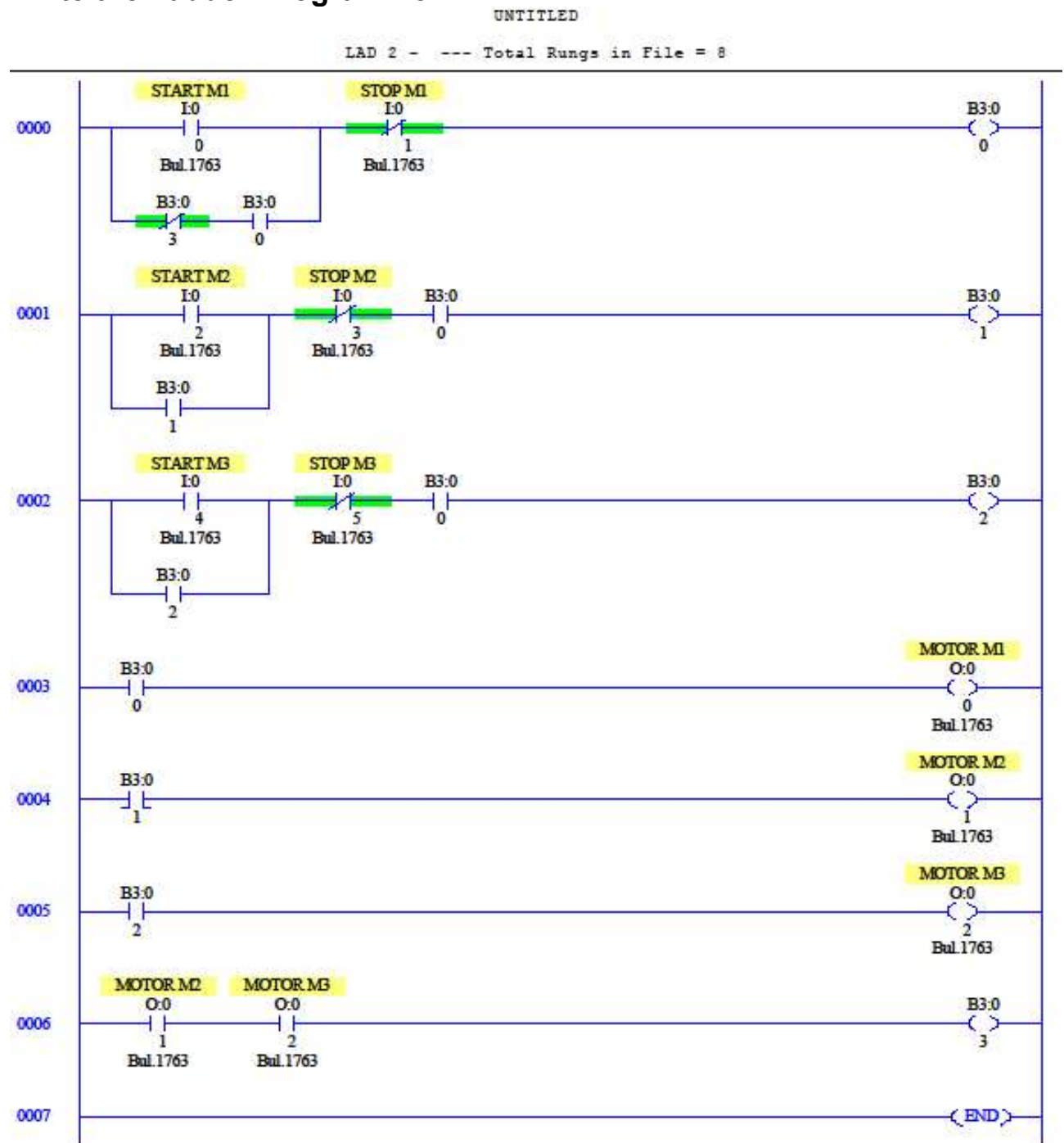
PC, PLC Software,

**Problem 1 –****PLC Programming for 3 Motors control in Ladder logic**

Write the PLC Programming Motors logic for the following problem.

1. There are three Motors: M1, M2 & M3. Having separate start and stop push buttons.
2. M1 must be running before starting, M2 and M3 motor.
3. M2 and M3 can start and stop without affecting M1 operations.
4. Only two motors can run at a time. The starting of the third motor will shut down all the outputs immediately, irrespective of its input.

## Write the Ladder Programme -



**Precautions:** Students must use proper type and range of the meters. They must show the wiring connections before switching the supply on.

**Conclusion/Critical Observation:** Students learn the following

1. Basic PLC Programming – Bit Logic