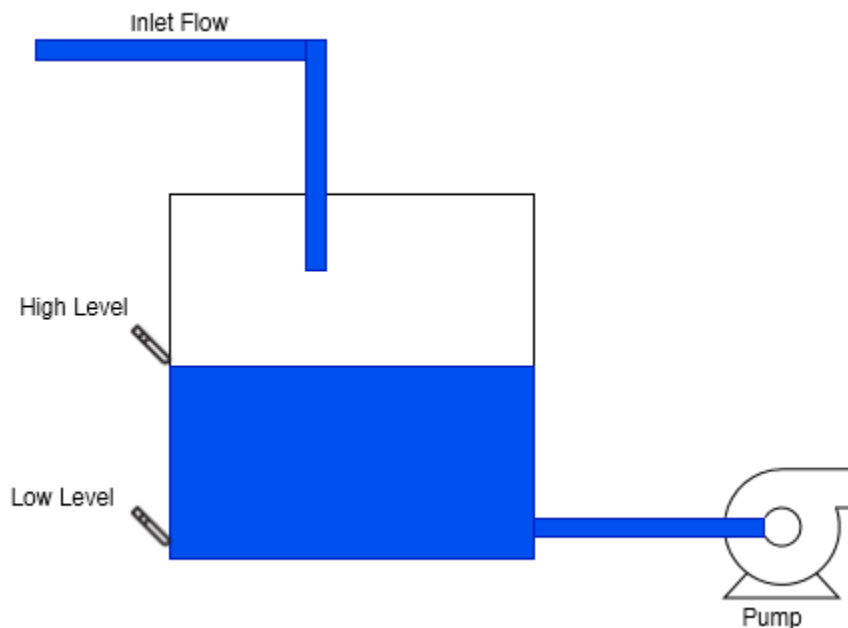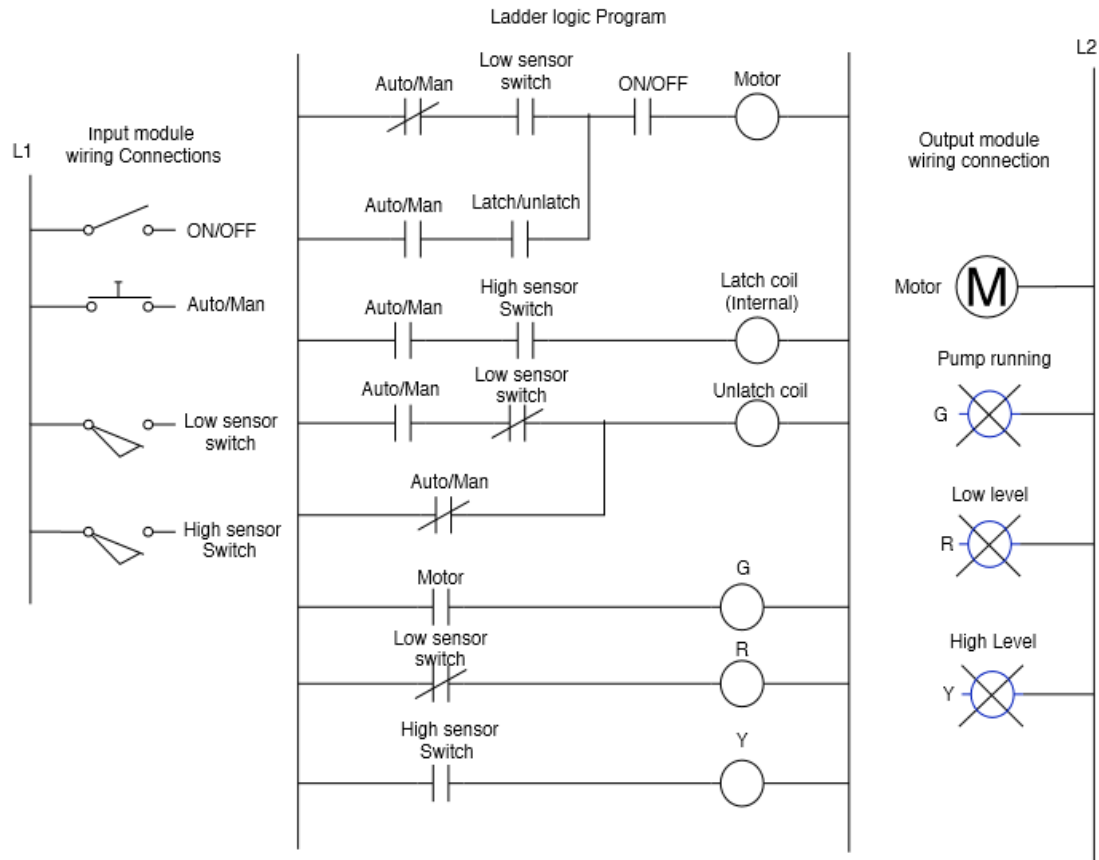# Pump Automation

Assumptions made in design

- The pump will be logically controlled based on Low Level Switch and High Level Switch when Auto mode selected in local control panel.

- If Manual Mode Selected in Local Control Panel, then irrespective of Low Level Switch & High Level Switch Status, Pump will be controlled manually using ON/OFF button in Local Control Panel.

- When the water level reaches low level then pump will be stopped.

- If the level of the water reaches high point, the pump will started so that the water can be drained and thus lowering the level.

- Indication Panel: This panel contains LED's to show the status of the water level control. It has Pump Running, Low Level & High Level Signals

Design diagram

Ladder logic Program

Any implementations to make the system fail-safe

- To avoid the possibility of power failure, have backup power sources.

- The cooling setting should be set to a level that will keep the area around the PLC at a relatively low temperature