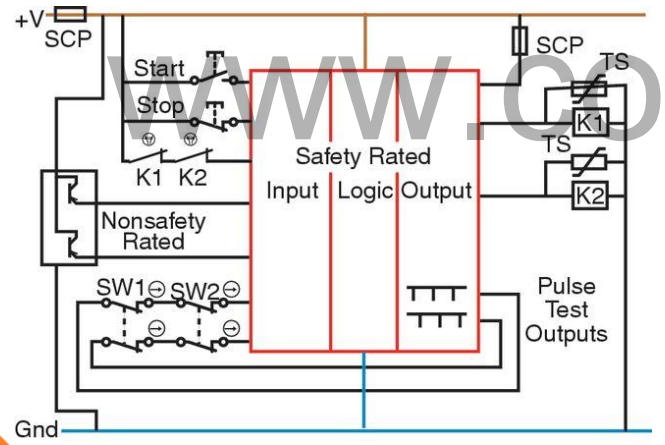
Siemens S7-1200

CPU 1212C AC/DC/Relay

PLC Safety Circuits

PLC Safety Circuits via Fuse, Emergency Switches and Fault Protection Relays



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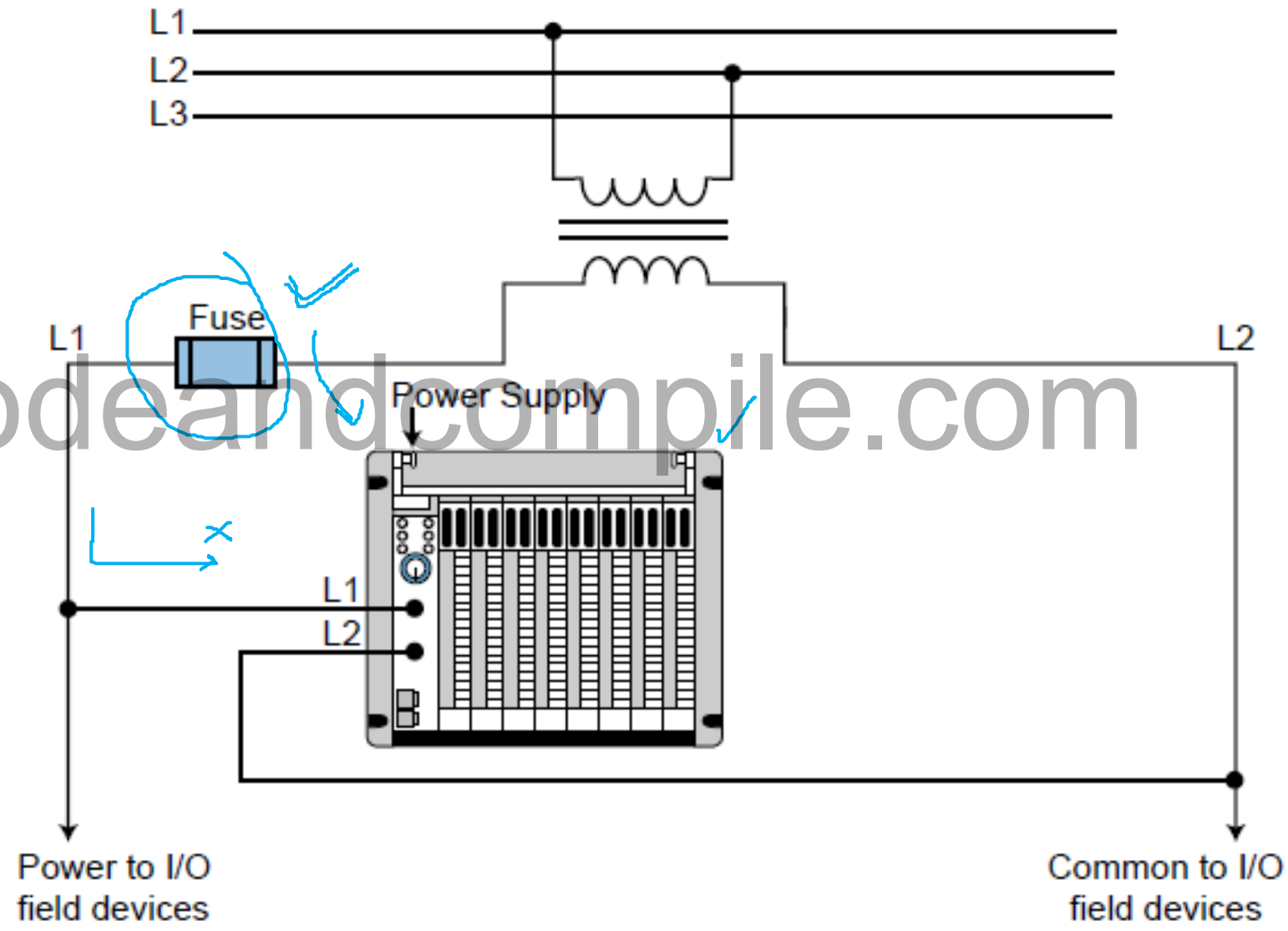
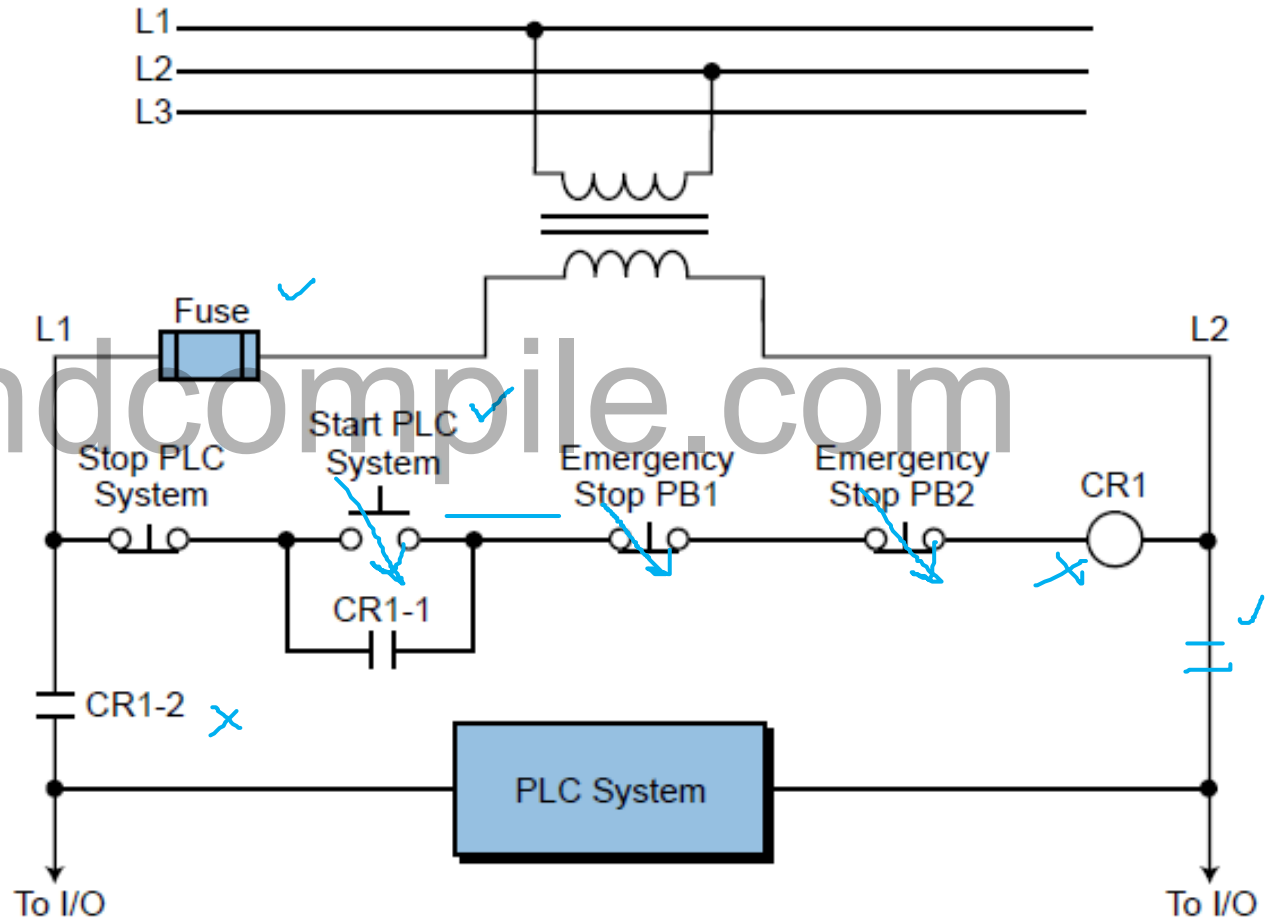
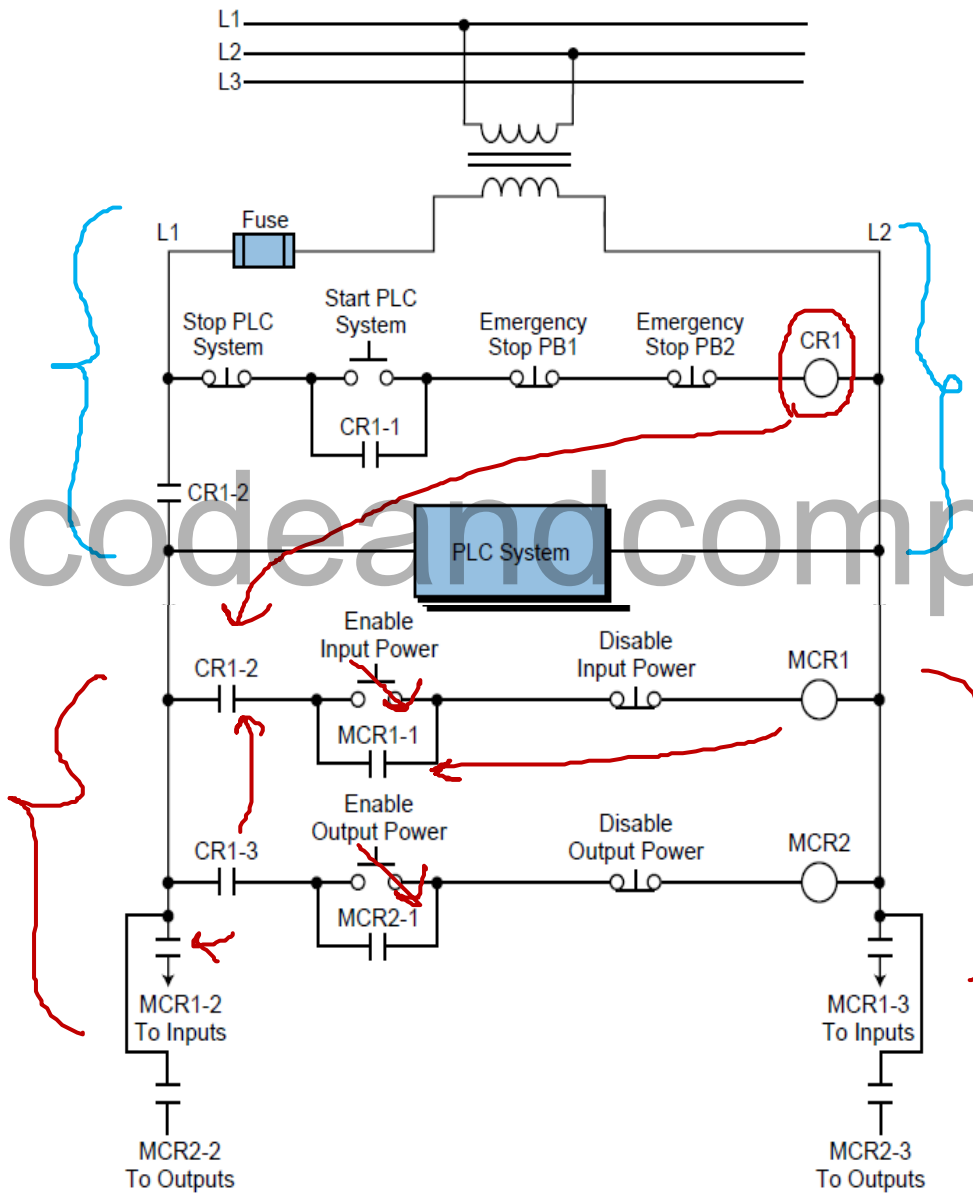
PLC Power Requirement



PLC Safety Circuits – **FUSE & Emergency Switches**



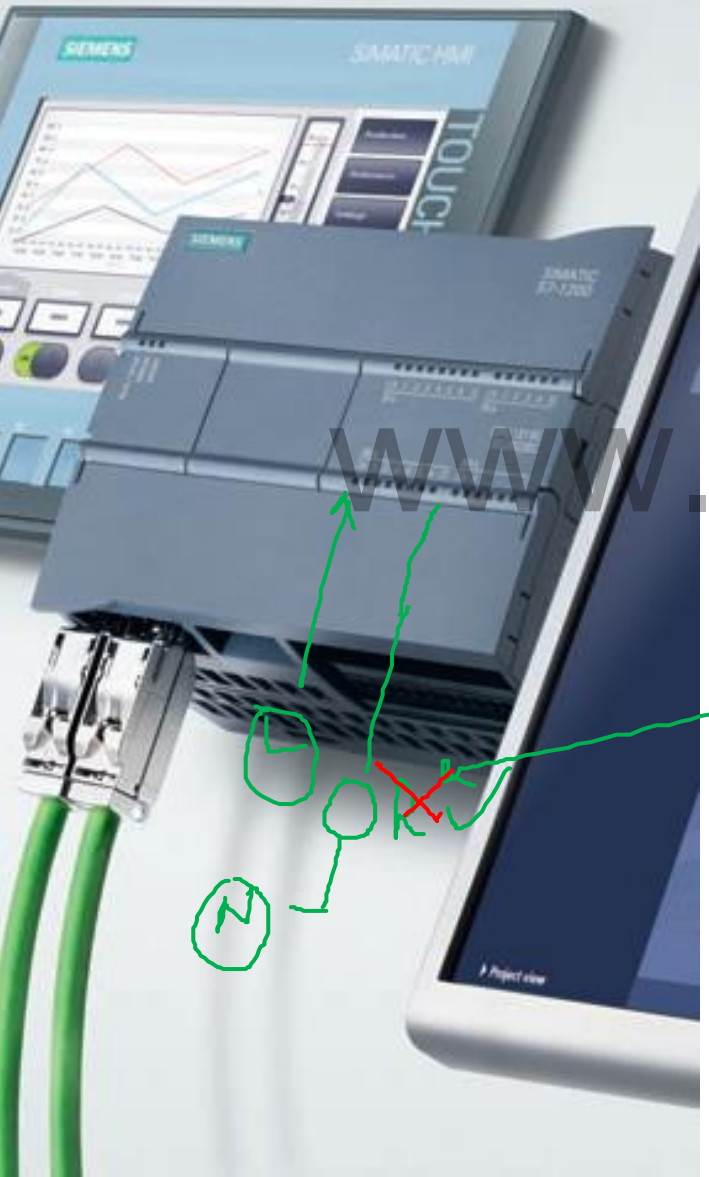
PLC Safety Circuits –**Master and Safety Control Relays**

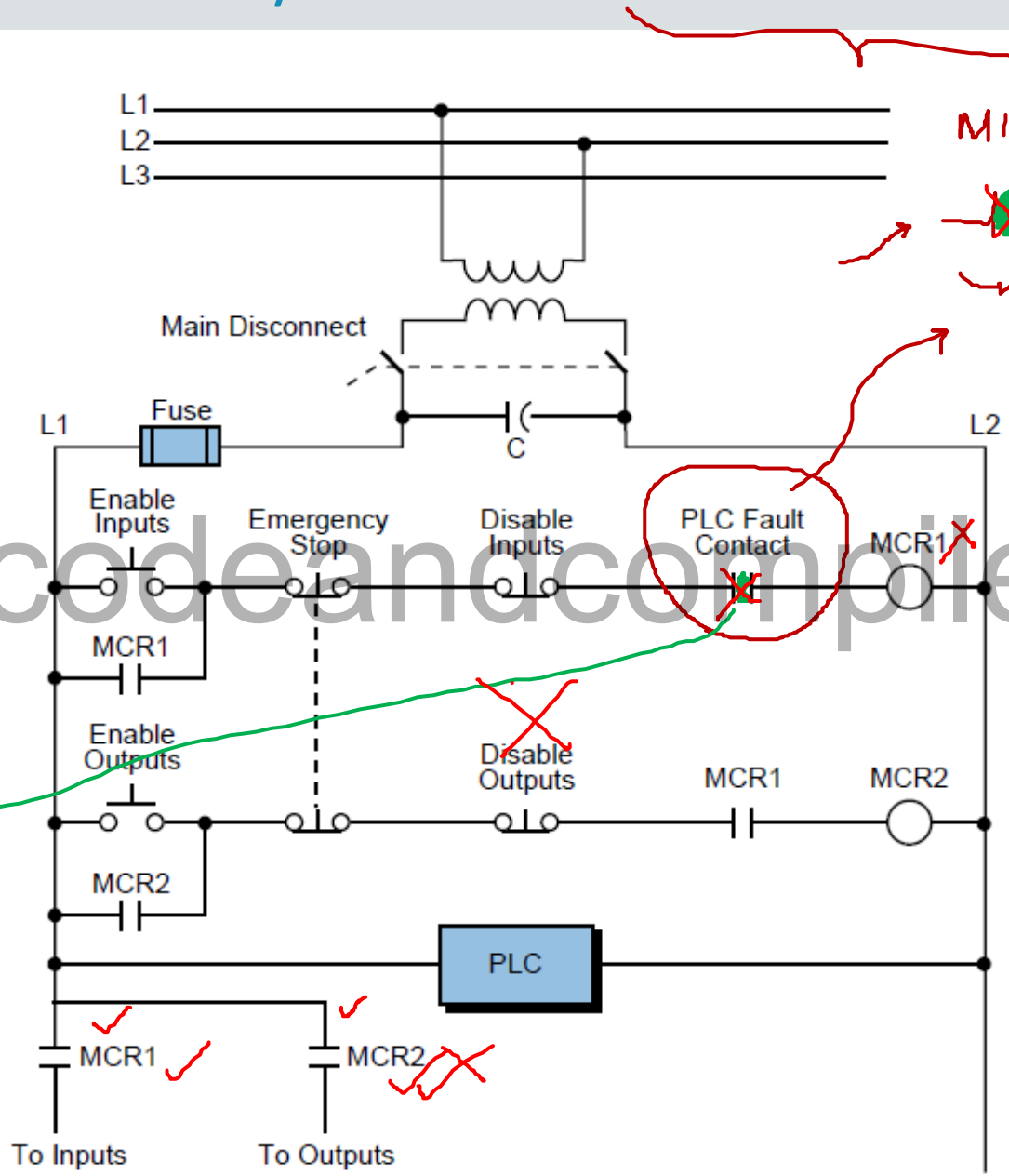


In this circuit we have used **Master control relays to isolate** the **input** and **output power** of PLC.

Thus we can **control the operation** of **Input** and Output of PLC's **independently** and can shut these down in case of **Emergency or Maintenance** without needing **to turn off the while PLC system**

PLC Safety Circuits - **Fault Contact Protection**





An MCR circuit may be extended by placing a **PLC fault relay (closed during normal PLC operation)** in series with any other **emergency stop condition.**

This enhancement will cause the MCR circuit to **cut the I/O power in the case of a PLC failure (memory error, I/O communications error, etc**

What did we learn in this lesson?

- To safeguard the PLC we can install **Fuse, Safety switches or relays**

Thank you

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