

**Subject Area:**

Electrical Trades II - III

**Title:**

Programmable Logic Controllers

**Teacher:****School:****Lesson Objective(s) & Career Cluster:**

Students will be able to do the following:

- \* Identify basic components required for the Programmable Logic Controller.
- \* Mount and connect input and output terminals.
- \* Connect Power Supply

**Activity:**

Students will identify and install the following components at the assigned location of the back panel.

- \* 35mm wide DIN - Rail.
- \* Dinnectors, Feed - through Terminal Block.
- \* CPU
- \* Power Supply.
- \* Red Indicator Light LED
- \* Green Indicator Light LED
- \* Amber Indicator Light LED
- \* Non-metallic enclosure for LED lights
- \* Proximity sensors and push button.
- \* Conductors.

**Evaluation:**

Each student will be evaluated by:

1. Location of required components.
2. Proper wire size.
3. Terminations.
4. Neatness of workmanship.
5. Written test on the basic components.

**Extension/Modification and/or Instructional Methodology:**

Students will use a drawing for components.

**SCAN Skills:**

Creative thinking, decision making, reasoning, problem solving, responsibility, Selects technology, maintains and troubleshoots equipment, understand systems, and seeing things in their mind.

**Cooperative Learning Ideas, TAAS, TEKS Competencies:**

TEKS 125.45 (1) (C) (D)

TEKS 125.45 (2) (D)

TEKS 125.45 (3) (D) (F)

TEKS 125.45 (4) (A) (C)

TEKS 125.45 (5) (D)

**Team Project, Guest Speaker, or Field Trip:**

Industry Speakers.

Industry field trips.

**Resources:**

Hand tools

Multi Meter

PLC components

Work Station