



Lesson 8: OVERVIEW OF CONTROL SYSTEMS & COMPONENTS

Lecture 5: Connections & Communications

Instructor: Mr. Reyes

Goals for this Lesson

For the student to gain an introductory understanding of connections & communications, and how it relates to automation.

Key Terms & more

The Tower of Babel - Genesis 11 - Discussion

Communicate - To pass on information, news or thoughts.

A communication protocol - is a set of rules that allows the transfer and exchange of data between the devices to communicate.

The integration of these systems is -

usually carried out by distributing the communications in several layers:

Field Buses

LAN networks

LAN-WAN networks

Communications Network – Discussion

- Like a city map

- with addresses and rules

Communications Protocol Functions –

Addressing

Data Packet Format

Segmentation

Embedding control

Controlling data flow

Controlling connection

Connections - Discussion

Connectors

Making a connection

The Crimp

Crimping - is joining two or more pieces of metal by deforming one or both of them to hold the other. The bend or deformity is called the crimp.



Steps to making a Ferrule Crimp –

1. Cut wire to be crimped
2. Strip the wire insulation
3. Cut off any other material
4. Braid wire end
5. Insert into the Ferrule
6. Squeeze the handles together.
7. Remove and inspect it.
8. Pull test the connection.