

LAB 6 - AMATROL PLC

ITEMS NEEDED

1. Amatrol Tabletop Mechatronics Learning System - AB Micro 820 (870-PTAB82)
2. Software
3. Amatrol online classroom software (lessons, quizzes, etc.) (20 student hours per Joe Ray)

INTRO

Industrial automation is generally done using industrialized computers called PROGRAMMABLE LOGIC CONTROLLERS (or PLC's). PLC's are often programmed using LADDER LOGIC - a type of visual programming language. The two biggest companies are PLC's are Allen Bradley (most used in the U.S.) and Siemens (most used in Europe).

Here we will program the Amatrol Tabletop Mechatronics Learning System to sort and stack a set of "pucks". The system uses various sensors and actuators to sort these items based on their weight, size, material type, and other features.

EXERCISES

The goal of this exercise is to gain a bit of experience with a real-life PLC automation system. Students will learn to run and operate the PLC equipment. Students must do the following 3 tasks:

1. Start the Amatrol PLC system (no Pegasus)
2. Run the Amatrol PLC system (no Pegasus)
3. Jog the different axes of the Pegasus robot.