

The documentation for your lab project will be in the form of a manual for the operation of your machine. This manual must include:

Instructions for:

- a. specifying number of turns on stator winding
- b. starting the machine
- c. loading the machine
- d. clearing jams

Diagrams:

- e. mechanical drawings or annotated photos
- f. PLC ladder logic
- g. State machine
- h. IAI slide program and position tables
- i. Smartmotor program
- j. Step motor configuration and profiles (from CTRIO Workbench)
- k. Wiring diagram or table, listing all I/O connections between PLC, sensors, pneumatic valves, IAI controllers, Smartmotor, and step motor amplifier

Descriptions:

- l. Specifications for machine, incl. restrictions on windings (wire size, # turns, stator specs)
- m. Operation of each major section of the machine
- n. Suggestions for future improvements

Examples of manuals from the previous classes can be seen at:

<http://engr.wvc.edu/students/classes/engr480/reports/>