

Fairfield University
School of Engineering
EG31: Fundamentals of Engineering I
Robot Programming Project Report Format



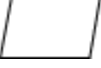

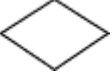




Completion of the project assignment is to be accompanied by a written report. Every student is to turn in an individual written report on the day of the scoring competition. The report text must be word-processed and all pages stapled. Flowchart diagrams are to be done with a flowchart template, a software application, or with straight edges & circle guides.

The report is to contain the following parts.

Part	Content
Cover Page	<ul style="list-style-type: none"> • Title (i.e. <i>Rhino Robot Pick & Place Competition</i>) • Student's name and team number/letter • Instructor's name • Date due • Class and section number
Introduction	<ul style="list-style-type: none"> • Purpose: State the purpose of the robot operation sequence. • Description: Describe the robot operation sequence.
Materials	<ul style="list-style-type: none"> • List the material items. State the items and amounts used [e.g. <i>Coffee cup (1)</i>].
Computer Code	<ul style="list-style-type: none"> • Flowchart: Prepare a flowchart describing the steps in your code. Use the symbols shown below. • Pseudocode: Prepare a pseudocode outlining the steps in your RoboTalk code. • RoboTalk Code: List your complete Robotalk program lines of code including comments.
Program Verification	<ul style="list-style-type: none"> • After conducting a program verification test, describe the robot's accuracy and state the measured time of the operation from the "home" to "home" position.

Flowchart Symbols

(Source: Introduction to Visual Basic 6.0, D.I. Schneider)

Symbol	Name	Meaning
	<i>Flowline</i>	Connects symbols and indicates the flow of logic.
	<i>Terminal</i>	Represents the beginning (Start) or the end (End) of a task.
	<i>Input/Output</i>	Stands for input and output operations, such as reading and printing. The data to be read or printed are described inside.
	<i>Processing</i>	Represents arithmetic and data-manipulation operations. The instructions are listed inside the symbol.
	<i>Decision</i>	Used for any logic or comparison operations. Unlike the input/output and processing symbols, which have one entry and one exit flowline, the decision symbol has one entry and two exit paths. The path chosen depends on whether the answer to a question is "yes" or "no."
	<i>Connector</i>	Joins different flowlines.
	<i>Offpage Connector</i>	Indicates that the flowchart continues to another page.
	<i>Predefined Process</i>	Represents a group of statements that perform one processing task.
	<i>Annotation</i>	Provides additional information about another flowchart symbol.