

Gryphon EC

35-002

PRECISION ROBOT

5 AXES + GRIPPER

Human arm configuration as widely used in industry.

SHAFT ENCODER FEEDBACK

12,000 counts/revolution on major axes.

Precise, smooth, fast travel characterise the Gryphon EC.

The articulated arm is under the control of 4 micro-processors and will accurately place components in a CNC machine or work-cell.

Each axis is powered by a stepper motor with encoder feedback to provide closed-loop control.

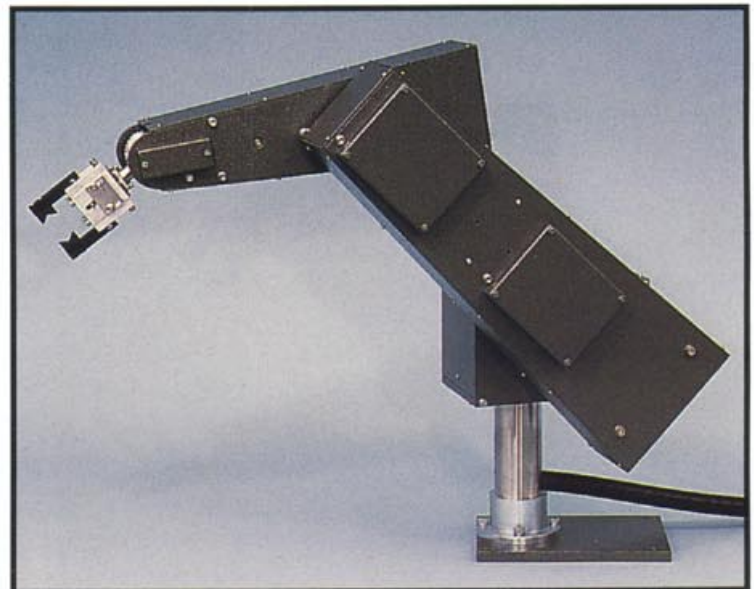
In the controller there is one micro-processor to monitor the positions of the axes, two more to control the motors and another one to supervise the first three and to communicate with the host computer.

Programming may be accomplished in a variety of ways. Data for each axis may be directly entered on-screen or the selected axis may be incremented either with the scroll bar or use of the + and - keys. Alternatively, the Gryphon EC may be moved by the teach pendant or by hand (lead-by-the-nose).

Either a two fingered or a vacuum gripper may be fitted and these may be readily interchanged.

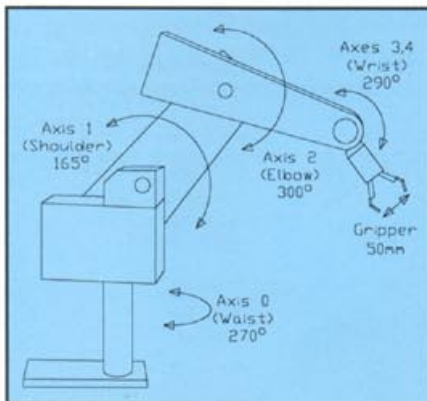
Included in the manual is full information on the control system and the computer interface. Also there are program

examples and suggested experiments and exercises on accuracy, repeatability etc.



SPECIFICATION

AXIS 0 (waist)	Angular movement 270° Axle centre from top of base 185mm Axis 1 axle to column centre 50mm	WRIST PITCH	Angular movement 170°
AXIS 1 (shoulder)	Angular movement 165° Arm length between axle centres 225mm	WRIST ROLL	Angular movement 290°
AXIS 2 (elbow)	Angular movement 300° Arm length between axle centres 225mm	REPEATABILITY	0.5mm
AXIS 3 (left wrist axle)	Angular movement 290°	LIFTING	1000gm at full reach
AXIS 4 (right wrist axle)	Angular movement 290°	REACH	652mm from column centre
		SPEED	Programmable. Max 400mm/sec
		CONTROL SYSTEM	Digital with incremental encoders. Axes 0,1,2 - 12,000 counts/rev. Axes 3,4 - 2,000 counts/rev
		WORKCELL INTERFACE	Digital outputs 8 Digital inputs 8 Analogue inputs 2 (12bit)



GRYPHON TEACH PENDANT

Supplied with the Gryphon EC is the teach pendant. With this each of the arms may be controlled even without a computer connected.

When connected to the computer, the moves may be recorded and played back either as a stand-alone robot or as part of a multi-device work-cell.

GRYPHON SIMULATOR

A useful addition to the Gryphon EC is the simulator.

This is a small scale model of the robot which is operated by hand.

Every movement is copied by the robot. These moves can then become part of the robots' program.

