

Description

R17 (Deucalion) is a low cost entry to robotics, fast, accurate and reliable and easy to program. It has a long reach and therefore a larger and much more useful workspace than comparable machines. The mechanics are simple and phenomenally reliable, there are R17 Mk1s in service which have been running 3 shifts a day for ten years without failure, in fact we give a 2 year warranty. The R17 is a complete self-contained five axis vertically articulated robot arm system designed as a cost effective solution for processes requiring long reach or difficult access. Applications include product testing, sample handling, parts handling, machine feeding, welding, spraying, sound measurement and many more. It is easy to apply and program yet is capable of the most intricate tasks.

The Mk5 uses new light weight, high speed, high efficiency stepping motors with intelligent micro-stepping for both power and speed and for low speed precision when required. Each motion of the robot is monitored by the encoders that stop all motion in the event of a collision or other problem. The Mk5 package includes the new Mk5 controller that again is simple and reliable using a partnership of CPU and DSP micro-processors and compact micro-stepping drives. Software is **ROBOFORTH II** which gets you started easily yet permits the most complex motions, interfaces and peripherals to be programmed, assisted by **ROBWIN** project manager that brings everything together on one Windows screen. Everyone who uses this system agrees it is the most flexible robot software on the planet. You'll find it a joy to use.

The 6th axis is a unique way to make 6 axes optional, being an add-on module with a miniature stepping motor driving through a Swiss anti-backlash gearbox.

Specifications - Higher Payload Version

Drives:	High torque 3-stack micro-stepped stepping motors incremental encoder watchdogs
Reach:	750mm/30ins in any direction; full 360 degree waist rotation
Payload:	nominal 3Kg, max 5Kg at flange (repeatability and speed degrade with increasing payload and reach).
Repeatability:	0.5mm (see note)
Compliance:	
droop at 500mm at nominal payload:	1.0mm
droop at max reach, max payload:	8mm
Maximum speed (standard drives*):	Shoulder 60 deg/sec, Elbow 120deg/sec, Waist 90 deg/sec. (around 1000mm/sec composite).
Max torque for hand pitch or roll:	8 Nm.
Weight	Robot 21.5Kg/48lbs, Controller 11kg/25lbs
Power:	110/240v ac 420VA (standard controller)
Temperature range:	0 - 30C (wider range optional)
MTBF:	10,000 hours
Finish:	White powder-coat plus white vacuum formed ABS plastic covers