

# COLLABORATIVE ROBOT



SYSTEM CONTROLS

Versatility is reality

The Collaborative Robot (COBOT) is a stand-alone system works in specified work space with interaction of user. The COBOT has four axes : Base, Shoulder, Elbow and Wrist which are controlled by closed loop control system. The COBOT has maximum reach of 550mm with 4 degree of freedom. The system has payload capacity of 3Kg at wrist axis including Gripper. The base axis is coupled to a precision harmonic gear with encoder, limit switches, motor and brake to achieve controlled velocity and position. In COBOT each axis will work independently to reach target position and also in combined manner (interpolation) based on the user input from GUI.



## APPLICATION AREAS

- ◇ Robot that safely operate along side humans in a shared workspace
- ◇ Quality inspection and Testing.

Part No: SC-SYS-CB-A-00-000

## Technical Specification

Motion Profile	Trapezoidal/S-curve
Modes of operation	Position, velocity and 2/3 linear interpolation
Type of interpolation	Linear interpolation
Operating temperature	-10 to 55 deg Celsius
Size	110 x 160 mm
Maximum reach	550mm
Payload capacity @ Wrist	3Kg
Working range	
Joint 1 - Rotational Axes	±170deg
Joint 2 - Shoulder Axes	±90deg
Joint 3 - Elbow Axes	±135deg
Joint 4 - Wrist Axes	±360deg
Speed	
Joint 1 - Rotational Axes	: 60 deg/sec
Joint 2 - Shoulder Axes	: 45 deg/sec
Joint 3 - Elbow Axes	: 30 deg/sec
Joint 4 - Wrist Axes	: 120 deg/sec
Repeatability	: ±0.5mm
Communication Interface	: ETHERNET TCP/IP
Weight	: 26Kg

## SERVICES

- ◆ Engineering Design & Development
- ◆ System Integration Development
- ◆ Electronic Testing & Assembly
- ◆ CNC Machining & Manufacturing

### SYSTEM CONTROLS TECHNOLOGY SOLUTIONS

www.systemcontrolstpl.com  
webmaster@system-controls.com  
#65 & 66P, Hitech Defense and AeroSpace Industrial Area,  
Singahalli Villagae, Bangalore—562129  
Phone: +91 8069050400 Fax: +91 8069050413