

# Controlling A 4 Axis Delta Robot using MAPP Cockpit

Ashwin Shipalkar<sup>1</sup>, Pratik Nawale<sup>2</sup>, Sharad Sawant<sup>3</sup>

Student, Department of E&TC, NBN SINHGAD School of Engineering, Pune, India<sup>1,2</sup>

Associate Professor, Department of E&TC, NBN SINHGAD School of Engineering, Pune, India<sup>3</sup>

**Abstract:** *Delta Robot holds high importance in industries worldwide and is used for various purposes. Delta Robot is a type of parallel manipulator robot which provides very fast and accurate object manipulation capabilities. 4 Axis Delta Robot consists of three arms connected to universal joints at the base. The key design feature is the use of parallelograms in the arms, which maintains the orientation of the end effector, by contrast to Stewart platform that can change the orientation of its end effector. Delta robots are robots with a base connected to jointed parallelograms. These parallelograms perform motions in a solitary End of Arm Tooling (EOAT), within a workspace that is dome-shaped. This type of robot is well-known in the industrial field for its ability to execute minute, precise motions. Delta robots have popular usage in picking and packaging in factories because they can be quite fast, some executing up to 300 picks per minute. Each of them was designed to be tailored to industrial applications. These structures consist of fast pick-and-place robots as well as high stiffness machines for insertion and tool machining operations. To deal with this, each robot will be emphasized through its specifications and the application it has been developed for. The delta does have its drawbacks. All that speed typically carries some weaknesses in other areas. For the delta, this tradeoff is the speed for reach and payload. The mechanical design doesn't allow the delta to move very heavy loads.*

## REFERENCE

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