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Product Name :
Ball And Plate Apparatus

Product Code :
LBNY-0005-18500012



Description :

The Ball and Plate Apparatus shows the problems of the of an unstable system. The apparatus consists of a plate pivoted at its centre so the plate can tilt in two directions. The basic control task is to control the ball position. The ball is free to roll on the plate. Stepper motors tilt the plate. A servo system with a stepper motor control card controls the motors. A camera with an intelligent vision system measures the ball position.

The equipment includes:

A data acquisition board for your computer

Camera with USB connection

Ball and plate model

Power supply

The data acquisition board fits into a suitable computer (not included) to link with the Ball and Plate Apparatus and control its motors.

Software (included)

Interface library for programming at the system level

Demonstration program with PID controllers

Technical Specification :

Experiments of Ball And Plate Apparatus

Digital PID controller design for ball position stabilisation and trajectory following

Path planning for moving the ball between obstacles Essential Services

Real-time digital image processing

Adaptive controller design
Fuzzy controller design.

Electrical supply: 110/220/240 VAC, 50 W, 50/60 Hz, with earth

Specify your voltage:

Bench space needed: 0.6 m x 1000 mm

Operating Conditions

Operating environment:Laboratory

Operating relative humidity range:80% at temperatures Storage temperature range:25°C to +55°C (when packed for transport)

Operating temperature range:+5°C to +40°C.



Laboratory Instrument India