

# ROTARY SERVO BASE UNIT

## Turn-key servomotor system for modern, expandable control labs

The Rotary Servo is an easy-to-use and intuitive platform, and the base unit of the Quanser rotary control experiments. It is ideally suited to introduce basic control concepts and theories. Use the Rotary Servo Base Unit on its own to perform position and speed control experiments, or select the Inverted Pendulum, Flexible Link, or another from ten add-on modules<sup>1</sup> to expand the range of control concepts you can explore and the complexity of experiments.

The Rotary Servo Base Unit is a geared servo-mechanism system. The DC motor drives a smaller pinion gear, fixed to a larger middle gear that rotates on the load shaft. The position of the load shaft is measured using a high resolution optical encoder or a potentiometer. The encoder is also used to estimate the speed of the motor.

### Features



#### Precise

The system's inherent precision helps deliver accurate, repeatable results required for teaching & research labs.



#### Robust

A durable system able to accommodate enthusiastic undergraduate students.



#### Comprehensive Courseware

ABET-aligned courseware for MATLAB®/Simulink® or LabVIEW™ covers modelling, position, and speed control topics.



#### Expandable

Ten add-on modules<sup>1</sup> for experiments of varying complexity across a wide range of topics and disciplines

### Workstation Components

Plant	Rotary Servo Base Unit
Data acquisition device	Quanser Q2-USB
Amplifier	Quanser VoltPAQ-X1
Control design environment	QUARC for MATLAB®/Simulink® QRCP for LabVIEW™

<sup>1</sup> The add-on modules are sold separately

