



Quanser Double Inverted Rotary Pendulum

Double Inverted Rotary Pendulum is an extended version of a single pendulum. This additional module can be mounted on the Rotary Servo Base Unit. It is equipped with 2 pendulums mounted on a swivel axis and 2 encoders. Students model this object mathematically, and then design algorithms necessary to control it: stabilization and swing-up. The kit includes all elements needed to quickly start the station: amplifier, controller, Matlab or LabVIEW module as well as educational materials for students...

Basic technical parameters:

- Base parameters:
 - High quality servo motor (6V, 1A, 6000 RPM)
 - Potentiometer for measuring the position ($\pm 5V$)
 - Quadrature encoder (4096 pulses / revolution)
 - Gears with the possibility of changing the gear ratio
 - Complete teaching materials compatible with NI LabVIEW and Matlab / Simulink included
 - Open architecture allows to create own control algorithms.

- Module parameters:
 - Arm length: 215.9 mm
 - Short pendulum length: 200 mm
 - Long pendulum length
 - Encoder resolution: 4096 pulses / revolution