Quanser 2DOF Ball Balancer

Two Rotary Servo Base Units control the plate movement in two axes. The camera located above the disk analyses the position of the ball which is to stay in a given point or move along a planned trajectory. Students may create an extensive control algorithm, the input data of which comes from various sources (encoders, camera). The kitkitincludes all the 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 (± 5V)
  - Quadrature encoder (4096 pulses / revolution)
  - Gears with the possibility of changing the gear ratio
  - Comprehensive educational materials compatible with NI LabVIEW and Matlab / Simulink included
  - Open architecture allows to create own control algorithms.

- Module parameters
  - Camera resolution: 640 x 480
  - Frames per second: 30
  - Disk measurements: 275 x 275 mm