

18750 Turntable

Purpose:

To provide a low friction rotating platform for experiments in angular momentum.

Discussion:

Designed to provide a low friction rotating surface to demonstrate experiments involving the conservation of angular momentum and rotational kinetic energy. It can be used on the floor to stand on or on a stool to sit on. It is capable of supporting one student. The load should be uniformly centered to prevent the bearing from binding.

The bearing should be kept free from debris, and can be periodically cleaned with a vacuum or high pressure air hose.



Experiments:

Experiments with gyroscopic precession and torque can be investigated using a bicycle wheel gyroscope. Other experiments and demonstrations involving rotational motion can be found in any standard physics text.

For instance: A student sitting on the turntable which in turn is on a labstool with no back, can have a one kg mass in each hand to demonstrate how angular momentum is conserved with the arms extended and with the arms withdrawn.

Useful Additional Materials:

Hand held weights
Lab stool
Gyroscope, bicycle wheel

Time Allocation:

No prior assembly is required for this product. Individual experiment times will vary depending methods of instruction, but normally the usual demonstrations will not exceed one class period.

Feedback:

If you have a question, a comment, or a suggestion that would improve this product, you may call our toll free number.