

SQUARE WHEELS

MAINTENANCE INSTRUCTIONS

GENERAL INFORMATION:

Square wheels has two rails, each with a series of round top wood blocks. The blocks are shaped so that a 10" square wheel can ride over them with its center moving in a straight line. The bumps are carefully designed flat catenary curves which exactly match the sides of the wheel in length. These curves also exactly compensate for the changing axle height of a square wheel as it rolls along. Extensive graphics explain the exhibit.

Cleaning the Exhibit:

The wood and wheels can be cleaned with a soap solution. The clear acrylic over the graphics should be cleaned with a plastic cleaner and a soft wipe that will not leave scratches, (we suggest Wype-All™).

Wheel Maintenance:

The wheels are made of polyurethane with a Delrin™ axle between them. The square tires will eventually loose their corners and roll with some difficulty. The tires can be changed by simply removing the flat head allen screws which retain the hub caps on the axles. The axles should last through many sets of tires. The Exploratorium should be contacted for replacement parts.

Track Maintenance:

The wood track is covered with 3M tread tape generally used on stairs. The blocks are fastened onto the aluminum rails and can be easily removed. The old tape can be peeled off. Rubber cement thinner (hexane) or suitable adhesive softener may be used to loosen the tape. Note that the tape is carried over the ends of the blocks to prevent peeling once the track is reassembled.