## Mechanics

### Measurements
- Gaussian Distribution Machine
- Mass, Length, and Time
- Tinker Toy Vectors

### Motion in Two Directions
- Conical Pendulum
- Parabolic Trajectory of a Water Jet
- Shoot the Monkey
- Simultaneous Fall
- Spinning Block

### Newton’s Laws
- First Law
- Hand Smash
- Inertia Ball Breaks String
- Tablecloth Trick
- Second Law
- Atwood’s Machine
- Third Law
- Fan Cart

## Statics of Rigid Bodies

### Work and Energy
- Ballistic Pendulum
- Bowling Ball Pendulum
- Loop-the-Loop
- V Shaped Ball Track

### Linear Momentum and Collisions
- Air Track Collisions
- Conservation of Momentum Carts
- Fire Extinguisher Cart
- Newton’s Cradle

## Rotational Dynamics

### Properties of Matter
- Bravais Lattice Models
- Happy and Unhappy Balls

### Oscillations
- Coupled Pendulum
- Double Pendulum
- Driven and Damped Torsional Pendulum
- Driven Mass on a Spring
- Hooke’s Law
- Normal Modes on an Air Track
- Self-Synchronizing Metronomes
- Simple Pendulum
- Oscillating Ring
- Pendulum and Turntable