

## **Past Examples of Midway Physics Day Demonstrations**

### **Jumping Rings**

*Energizing a magnetic coil causes aluminum rings to jump high into the air. This is an example of Magnetic Induction.*

Old Apparatus  
New Apparatus

### **Magnetic Braking**

*Another magnetic induction example. This shows the principle used to stop the Drop Zone ride.*

Copper Tube  
Aluminum Tube  
Nuts / Magnets  
Identical Drop Set

### **Liquid Nitrogen (large dewar)**

*Fun stuff to do with liquid nitrogen.*

Small Dewar  
Stuff to Freeze (balloons, flowers, etc..)  
Pressure Vessel  
Gloves  
Pliers  
Metal Coat Hangers

### **Polarizers**

*Illustrates how polarized sunglasses work*

### **Lightbulb w/ Crank**

*Electric generator.*

### **Magnet w/ paperclips and string**

*A big magnet to play with and see visual representation of magnetic fields.*

### **Singing Rods**

*An example of a resonance phenomenon*

Aluminum Singing Rods  
Rosin

### **Wave Springs**

*Can be used to illustrate travelling waves and standing waves (resonance.)*

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**Basketball/Tennis Ball Collision**

*Conservation of linear momentum*

**Rotating Platform**

*Illustrates conservation of angular momentum*

Weights

Bicycle Wheels with Handles

**Accelerometers**

*Can be used to take measurements on Fair rides*

Fanny Packs

Vests

PASCO Handheld Data Acquisition

Laptops w/ Data Studio Installed

USB cables

Extra AA Batteries

Extension Cords, Power Strips, Tools, Ball Pump