

Exhibit components:

The Magic Behind the Silver Screen

How does Etch A Sketch® work? We've taken it apart to reveal its inner workings. See how pulleys and wires guide the drawing tip.

Pattern Tracer

Test out your manual dexterity by following different patterns on this gigantic Etch A Sketch.

Big Pulley, Little Pulley

Create crazy optical illusions! Move and connect pulleys for endless combinations. Discover the relationship between pulley size and speed!

Circuit Wall

Stay "current" with circuits, switches, and circuit boards. Keep a circuit open as you move a ring along an angled rod—it takes a steady hand to win at Operation®!

Circuit Challenge

This giant circuit board is alive with fans, lights, and sounds. Make all circuits active at once!

Cam Wall

Rotate cams to make Frog jump, Alligator bite, or Firefly flash! Look inside a Dr. Duck® toy and see how a cam helps him waddle along!

Linkages Wall

Try linkages connecting moving toy parts. Operate a Hungry Hippo®! Turn the crank on Pudgey the Piglet®! Look inside Pudgey, and watch Pudgey in motion. A motor can turn a simple action into a complex one.

Gears Wall

Gears are in machines and toys with moving parts. Gears are wheels with teeth. If two gears mesh, turn one, and the other turns!

Gears at Play

Movable gears on a big table can set objects in motion. Which size of the gears can spin the carousel and ballerinas faster and faster? Gear up and go!

Big Gear, Little Gear

Crank it up! See how an industrial-size gear train can change the speed of a rotating shaft.

What's Inside?

Inside Elmo®'s red fur and plastic skin are the motor, cam, circuit board and switches that make him dance.

Simple Machines

Design and build three dimensional simple machines with the Rig A Ma Gig® collection of wooden planks, wheels, pulleys, nuts, bolts, gears, and ropes in a 500 sq ft open play area encouraging collaboration and invention. Available with Toys: The Inside Story II.

What's Inside the Marching Machine?

Look through Mr. Machine®, a classic clear plastic '60s toy. A video shows linkages and cams that make him march. See the original 1960 Mr. Machine® TV ad!

What's Inside Jack-in-the-Box?

Crank a jack-in-the-box with clear sides. A second jack has a camera inside. As you turn the crank, see how the worm gear and cam mechanism let him jump!

Pulley Wall

Explore pulley power! What are pulleys? How do they respond to your actions?



GEARS AT PLAY



SIMPLE MACHINES



LEARNING GOALS

- A circuit is a path that electricity can flow "through"
- Simple machines like gears and pulleys can help accomplish work faster and more easily
- Cams and linkages can be used to change the direction and/or speed of motion