



# MECHANICS ALIVE!

Traveling Exhibition from the UK

September 2023



**CABARET  
MECHANICAL  
THEATRE**





# INTRODUCTION



**MECHANICS  
ALIVE!**

Using automata as vehicles to study science and mechanics has a long historical resonance. While automata in general were created for entertainment and rituals, they were also an important channel for scientific and technological discovery.

Today's automata continue the tradition of inspired invention, ingenuity, and STEAM: science, technology, engineering, art, and math. *Mechanics Alive!* invites visitors to bring to life these delightful automata artworks and learn about the basic principles of engineering by exploring the fundamental mechanisms used in each piece.

***Mechanics Alive!* is perfect for people of all ages who have the passion to create, invent, and design!**





# BACKGROUND Cabaret Mechanical Theatre



**CABARET  
MECHANICAL  
THEATRE**

The Cabaret Mechanical Theatre Company (CMT) was formed in 1979 by Sue Jackson as a small general craft shop in Cornwall, United Kingdom.

Working with local artists, CMT specialized in creating handmade automata that were sold to the general public. Due to the shop's huge success, CMT moved to London in 1984, where it soon established an international reputation for the quality and uniqueness of its product. Jackson's daughter, Sarah Alexander, has continued to evolve the company, and CMT now focuses on designing and developing temporary and permanent automata exhibitions.

**CMT's exhibitions have toured for over 20 years, entertaining and engaging audiences around the globe.**





# BACKGROUND History of Automata

Often considered the precursors of robots, automata are machines designed to follow a sequence of actions and tell a humorous story. Scientists, engineers, inventors, and artists throughout history have been intrigued and inspired to imitate life by mechanical means. Since ancient times, automata have been used as tools, toys, idols, and prototypes.

The history of automata can be traced back to small figurines with moveable limbs found in Egyptian tombs (c. 2000 BC) and to the more complex machines of the ancient Greeks. In medieval times, automata like roaring lions and singing birds are known to have adorned the throne rooms of Byzantine emperors. The Renaissance produced a wealth of automata, from the first cuckoo clocks to the mechanical toys that became prototypes for more complex machines like those that would usher in the Industrial Revolution.

In the late 19th and early 20th centuries, Parisian artisans perfected batch production of singing mechanical birds and clockwork automata, and exported their creations around the world. This Golden Age of Automata brought these intriguing machines to the masses. Automata reflected the artistic and cultural atmosphere of the time and had the ability to make every owner an impresario. By 1920, the dominance of French automata across the world had eroded—ended in part by the advent of the electric motor. Today, Cabaret Mechanical Theatre and its artists celebrate the history of automata by blending art and mechanics in their whimsical creations. We invite you to explore these automata to discover both their inner mechanisms and the artistic stories that bring *Mechanics Alive!*



# AT A GLANCE

## What is provided by CMT/Explora:

- 18 original motorized automata from the CMT collection
- 10 interactive mechanical boards
- Environmental treatments:
  - Full-size pedestals
  - Compact pedestals (optional)
- Remote installation and dismantle support (onsite support may be negotiated)
- Remote technical support during exhibition

## What needs to be provided by the host venue:

- Gallery space of approximately 1,000 - 2,000 ft<sup>2</sup>
- Printing and mounting of exhibition graphics
- Exhibition lighting
- 2 - 3 staff to assist with installation and dismantling
- Rental fee of \$2,300 per week, plus inbound/outbound shipping



# AUTOMATA



**Fish** by Matt Smith

Watch the handle: it turns steadily in one direction. But the fish change direction suddenly, as if part of a school.

Key Mechanisms: Ratchet, Pinwheel Gearing



**Allegory of Love** by Paul Spooner

This hapless man is always trying to hit the nail on the head, but it moves away with every strike of his hammer.

Key Mechanisms: Levers, Cams



# AUTOMATA



**Jack and the Beanstalk** by Carlos Zapata

The fairy tale character Jack looks inside the golden egg that the goose has laid. His arm is lifted by a crank and linkage. Inside the egg is the giant at the top of the beanstalk.

Key Mechanisms: Cams, Linkages



**Lion Tamer** by Ron Fuller

The Lion Tamer constantly shows his prowess by putting his head inside the lion's mouth. Luckily, the mechanism works in his favor, and the lion always misses him.

Key Mechanisms: Pinwheel Gearing, Drives, Cams



# AUTOMATA



**Poisoned Milk** by Paul Spooner

The cat drinks away at his milk, but something is not right. It is actually a mechanism underneath the milk that pushes up his tongue, making it appear as if he is lapping.

Key Mechanisms: Ratchet, Cranks, Cams



**Banana Ripener** by Paul Spooner

This piece was inspired by a job vacancy for a "Trainee Banana Ripener." There is not much labor involved, and the applicant has time to read the well-known British comic *The Beano*.

Key Mechanisms: Linkages, Cams



# AUTOMATA



**Last Dodo** by Paul Spooner

These sailors are unwittingly about to eat the last Dodo. They bang their cutlery as the captain carves the bird. In his hat is a feather from the now-extinct creature.

Key Mechanisms: Cranks, Linkages



**Miser's Deathbed** by Paul Spooner

The miser is so afraid that his manservant will steal his fortune that he cannot take his final breath. He sits up each time the lid of the chest is raised.

Key Mechanisms: Pinwheel Gearing, Cams



# AUTOMATA



**Council Councillor** by Paul Spooner

The counsellor works for the local council and listens patiently to his client... but his foot is never far from the button under his desk.

Key Mechanisms: Pinwheel Gearing, Cranks



**Goat at Piano** by Paul Spooner

To play the piano loud enough for his questionable tastes, the goat uses amplifiers: two sand-filled socks. He takes care to place a heavy cat on the instrument to prevent it from jumping about.

Key Mechanisms: Gears, Cams, Ratchets



# AUTOMATA



**Steampunk Pegasus** by Keith Newstead

This clever crank mechanism powers all movements of the flying horse. Linkages move the legs and wings.

Key Mechanisms: Linkages, Cranks



**Hula Hooper** by Paul Spooner

Look carefully at the metal hoop. It appears to be moving around the body, but if you look closely, you will see that it is fixed to one point on the central ball, which is what is actually moving.

Key Mechanisms: Pinwheel Gearing, Cranks



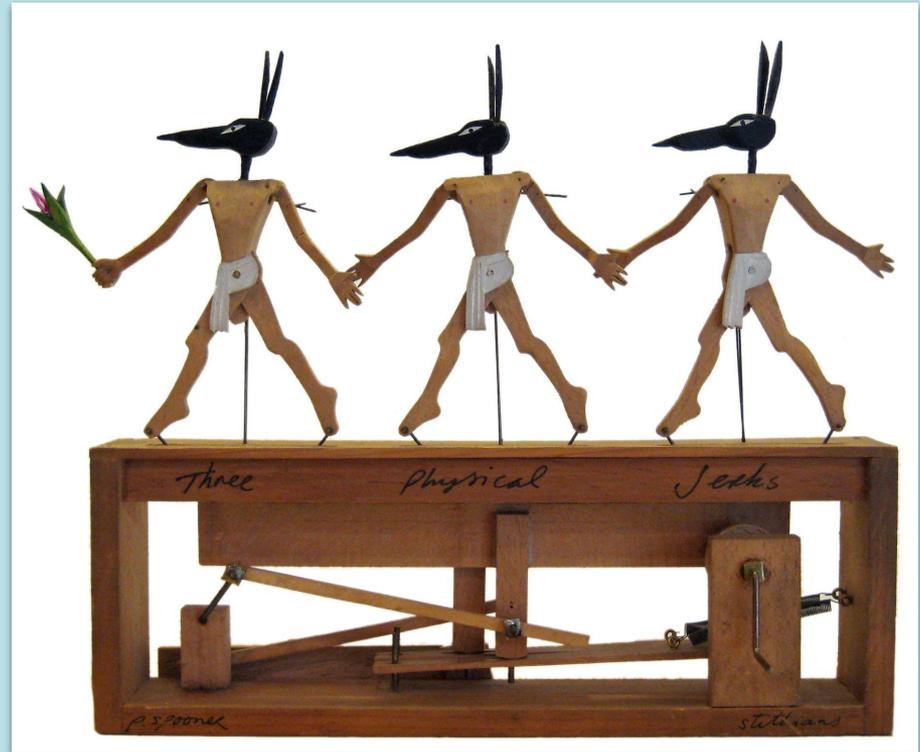
# AUTOMATA



**Fugu Eater** by Paul Spooner

The handle turns, and the diner eats his fish happily with the chopsticks. The metal ratchet rotates... and the tension ratchets up! We know it is a Fugu fish—a dangerous choice.

Key Mechanisms: Ratchets, Cranks



**Three Physical Jerks** by Paul Spooner

These Egyptian Anubis figures are practicing their display for the Pharaoh's wife. One has brought her a bouquet of flowers.

Key Mechanisms: Levers, Cranks



# AUTOMATA



**Orinoco's Piranhas** by Carlos Zapata

Colombian artist Carlos Zapata depicts a scene from the famous Orinoco river. The farmer trades his wares by boat, and the piranhas are leaping just ahead of him. This simple mechanism creates a surprising amount of movement.

Key Mechanisms: Cams, Cranks



**The Californians: Hungry for Love** by Paul Spooner

After a long ocean voyage, the sailor is delighted to sit down to dinner at home. Or is it all a dream?

Key Mechanisms: Cams, Linkages



# AUTOMATA



**Scrab Wrapper** by Paul Spooner

Long ago, when Anubis was an up-and-coming undertaker, he saddled himself with the slogan “No corpse too big, no corpse too small.” The scarab-wrapping machine was invented to help with the fiddly task of mummifying small insects.

Key Mechanisms: Cams, Cranks, Pinwheel Gearing



**Camel Simulator** by Paul Spooner

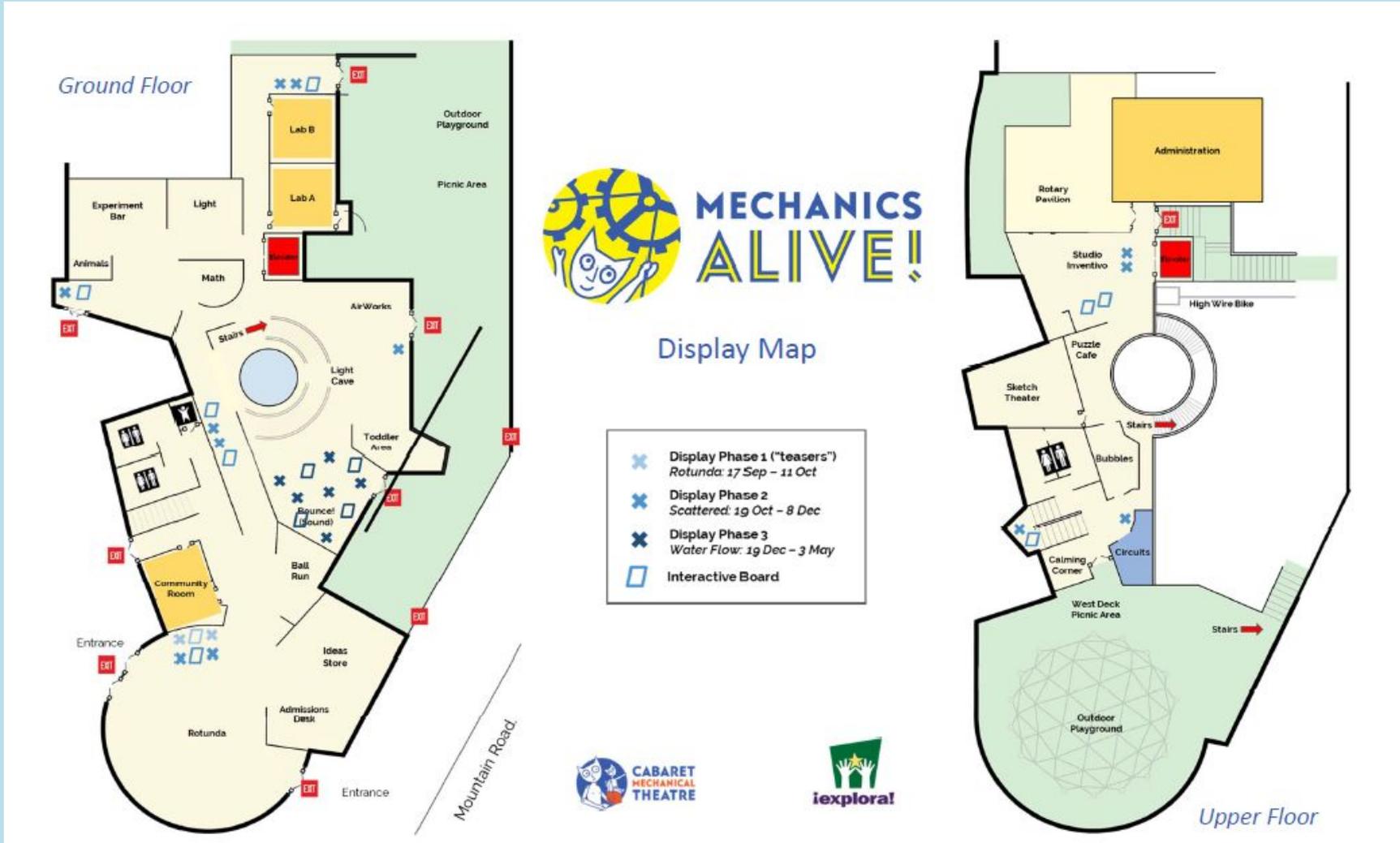
In ancient Egypt, the less-trustworthy embalmers had to practice quick getaways on a Camel Simulator.

Key Mechanisms: Cams, Cranks



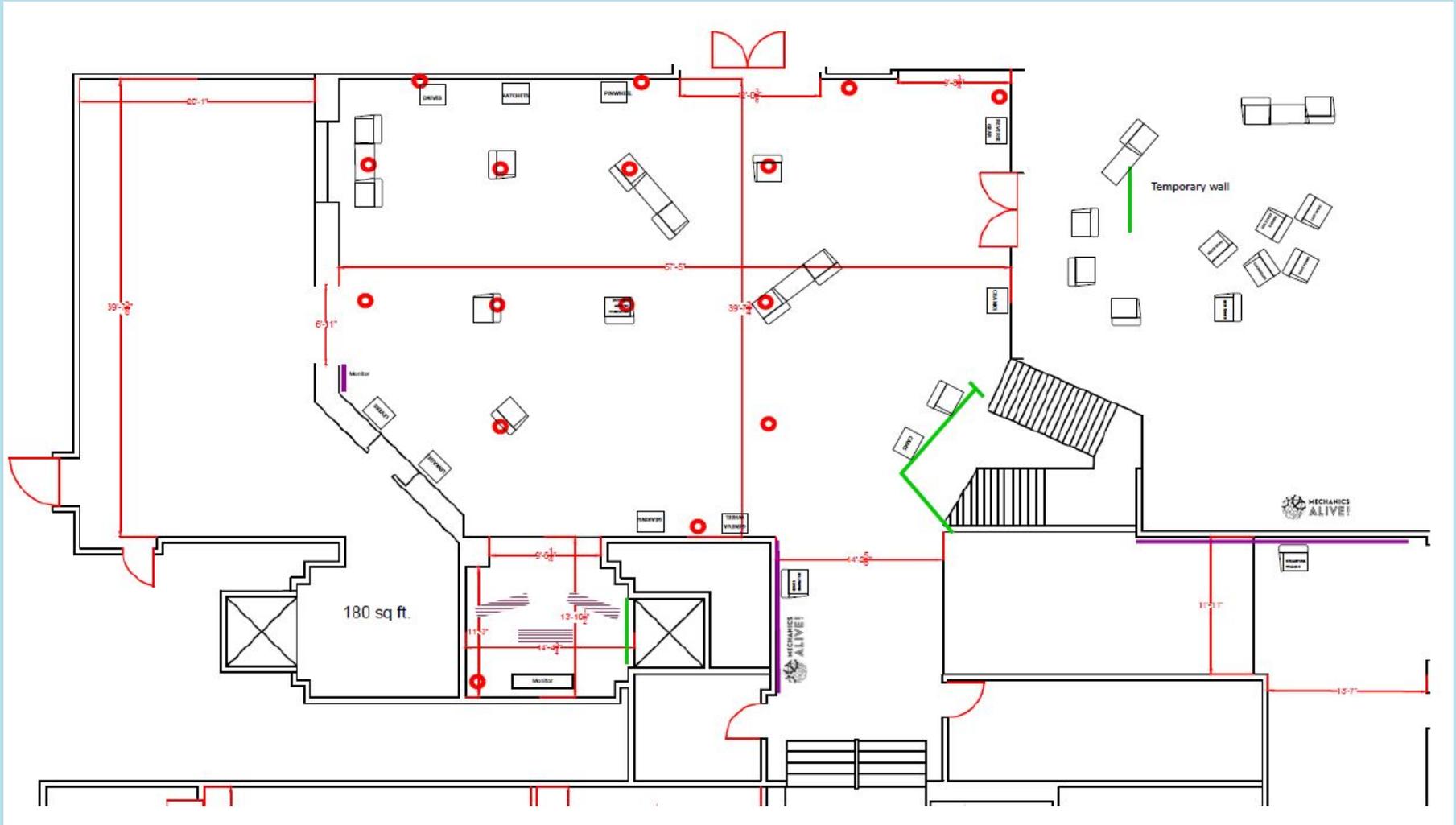


# EXHIBITION LAYOUT EXAMPLE





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Explora (Albuquerque, NM), Jul 2023 - present

