

**CREATIVE  
MACHINES**

**Interactive Exhibits Catalog**





# We are Creative Machines

Creative Machines is a multi-disciplinary design and fabrication firm focused on the production of interactive museum exhibits, kinetic ball machine sculptures, and large-scale public artwork.

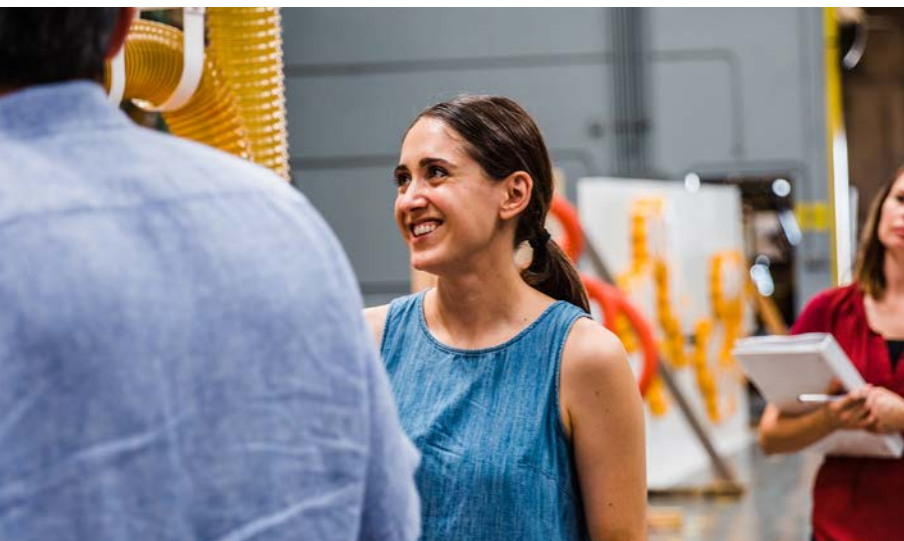
For over 25 years we have been making dynamic experiences for children's museums, science centers, libraries, hospitals, university campuses, transit stops, residential spaces, and public places across the globe. Regardless of the time of day, someone somewhere is enjoying our work.

Creative Machines is uniquely qualified to create exhibits to support visitor-based interactive learning spaces in museum settings. Before starting Creative Machines, President & Founder Joseph O'Connell worked as a Staff Scientist at Science North, lead the design, fabrication, staffing and educational programming for The

Inventor's Workshop at Liberty Science Center, joined the Hands On! team to aid in the development of The National Inventor's Hall of Fame (NIHF), and later became an Inventor In Residence at NIHF himself. Having come to understand museum spaces from an inside perspective, he soon established Creative Machines.

Our carefully chosen staff of 25 consists of managers, architects, artists, engineers, designers, and master craftspeople. Design, project management, electronics integration, and fabrication all occur in the same facility. Due to this close proximity, we can rapidly explore and test new ideas while balancing timelines and budgets.

We use a remarkable diversity of forms and materials, but the common thread is our belief that an exhibit is not complete until you can interact with it.



# Creative Machines at a glance



## MISSION ●

To pioneer new ways to inspire **wonder** and **imagination**. To create pieces that spark creativity, curiosity, encourage social interaction, and inspire self-confidence.



## EST. 1995 ●

Creative Machines was founded in **1995** by Founder & President Joseph O'Connell in his garage in New Jersey.



## 250+ ●

We have installed over 250 interactive exhibits, public art sculptures, and ball machines to happy people **all around the world**.



## LOCATION ●

Our 77,000 sq workshop is located in sunny **Tucson, Arizona**.

## ● EXHIBITS

Creative Machines began exclusively as an **exhibits** maker for museums and science centers.



## ● BALL MACHINES

In 2007, Creative Machines partnered with the renowned kinetic artist **George Rhoads** to take over the design and fabrication of his famous **Ball Machine sculptures**.



## ● PUBLIC ART

In 2004, Creative Machines started using its exhibit-making resources to create **public art commissions**. Today, public art and monumental sculptures are a large part of what Creative Machines gives to the world.



# What we do

Creative Machines tackles the most difficult exhibits in a museum; those requiring masterful design, in-depth prototyping, complex interactivity and sophisticated fabrication techniques. We have over 25 years of experience creating interactive exhibits for the museum industry and various other markets around the world.

We have a demonstrated ability to create pieces that engage visitors during every visit, and always strive to make exhibits that can withstand repeat encounters. Our expertise is in electro-mechanical interactive exhibits in unmatched; we are known throughout the industry for our ability to design and fabricate complex interactive pieces. Our tried and

true process allows us to take your project from concept to completion with ease. We transition from one stage of production to the next in our 8-acre facility.

Every project is expertly handled by a talented project team; an experienced project manager, design engineers, electrical engineers, and fabrication experts work side-by-side to ensure that every project is designed, fabricated, and delivered to you at the highest level of quality.

Because we work across so many disciplines, our team has extensive experience with complex assemblies that integrate a wide variety of materials and specialty finishes.

## SPECIALTIES

- Electro-Magnetic Exhibits
- Kinetic Rolling-Ball Machines
- Monumental Sculpture
- Interactive Lighting Installations
- Design Team Collaboration
- Museum Planning
- Placemaking
- Community Engagement

## MARKETS

- Children's Museums
- Science Centers
- Children's Hospitals
- Colleges & Universities
- Libraries
- Tradeshows
- Recreational Centers
- Transit Stops

## MANAGEMENT

- Project Management
- Estimating/Budgeting
- Logistics Management
- Design Management
- Electronics Management
- Production Management





## DESIGN

- Concept Design
- Schematic Design
- Detail Design
- Construction Drawings
- Engineering & FEA Analysis
- Interactivity Design
- Software Development
- Lighting Design
- Electronics Design & Integration

## PRODUCTION

- Prototyping
- Fabrication
- Metalwork / woodwork
- CNC Machining
- Assembly
- Custom electronics / lighting
- Testing
- Shipping & installation
- Graphic Design
- Graphics Production / installation

## SUPPORT


- Warranty services
- Phone service for life
- Troubleshooting assistance
- Maintenance Manual

Our collaborative approach extends to working with outside design teams, architectural teams, pre-existing infrastructure and outside stakeholders. We strongly believe in communication and helping your organization be part of the process at every step. We see ourselves as members of your team with everyone pursuing the same goal of creating the best possible experience for every visitor to your exhibit project.

Based on our background, ability, and dedication, we hope you will select Creative Machines as the exhibits maker for your exciting new project.





A young child with light hair, wearing a black long-sleeved shirt with a colorful rainbow graphic and bright pink boots, is looking intently at a complex mechanical exhibit. The exhibit features various gears, springs, and metal rods. An adult woman with dark hair, wearing a patterned jacket, is leaning in to assist the child. The background shows other parts of the exhibit, including a large white spring and a sign that partially reads "oads".

Creative Machines' reputation amongst the science center community in the United States is impeccable. Seeing their works in various science centers, I have often admired their craftsmanship and creative engineering solutions to common and complex problems often encountered in the design and fabrication of interactive exhibits.

To make this all possible, Creative Machines also brings to the table great customer service. Creative Machines has built a loyal customer base because they demonstrate that quality control and customer satisfaction is a priority.

Valence Davillier,  
Vice President of Exhibits  
Great Lakes Science Center



# What sets us apart

## Conception to installation, all under one roof

We provide full service capabilities in-house; transitioning from design to engineering, prototyping, fabrication and then installation.

## A great facility

Our 77,000 sq facility offers extensive design, engineering and fabrication capabilities in electronics, metal and composites. We have assembly spaces with clear spans over fifty feet high which allows us to fabricate, fully assemble and test large-scale projects prior to installation. We have organized workspaces for each stage of fabrication (wood shop, metal shop, clean assembly, etc.), CNC machines, a weather-testing chamber, and various other tools and equipment that make it possible to create complex interactives and artwork.

## Devoted entirely to making exhibits and art

While other exhibit fabricators are primarily woodworking and graphics shops, Creative Machines is a giant “machine” dedicated entirely to interactive exhibits and art.

## Meaningful interactivity

It is materialized in various ways such as touch sensitive circuitry, custom electronics, lighting and sound producing elements. Our interactive exhibits are based around STEAM learning objectives and demonstrate endless ways to physically, socially and intellectually engage.

## A commitment to sustainability

Creative Machines has a longstanding commitment to sustainability that informs how we design and fabricate, relate to our community and run our facility.

## Experience working with communities

We often host field trips for local schools and allow other outside young visitors to our shop to prototype our in-progress exhibits. This let's us see how the exhibit performs, any issues with interactive components or durability, and most importantly, if they are enjoying their experience. We love hearing what they have to say about their experience and we take their feedback into consideration before the exhibit is finalized. When you get an exhibit from us, know that it's been kid tested and approved.

## Quality exhibits that are tested and durable

We use smart design, durable materials, and sturdy fabrication methods to create pieces that are meant to endure. Most of our pieces have been installed for many years and have withstood daily use.





## **We specialize in seamless electronics integration**

Some of our abilities include embedded systems development, electronic hardware design, UX design and custom software development.

## **Our experience in interdisciplinary design**

Making public artwork and ball machines has helped us incorporate new materials and interactive technologies that we wouldn't have previously thought to include in our exhibits.

## **A professional project management team**

We are with you every step of the way. Our Project Management Team ensures that each and every project is completed on time and within budget with thorough communication. For every project, our PM Team will include regular documentation and progress reports and a maintenance manual upon completion. Each of our exhibits comes with a warranty.

## **Great location**

Our location right off I-10 and just 15 minutes from Tucson International Airport allows us to ship anywhere and host site visits easily. Let us know if you'd like to set up a visit to our shop. We would love to have you!

## **We never stop innovating**

We make technically advanced projects and explore fabrication strategies that have never been tried before. Extensive research and prototyping let us create the most innovative and unique work for our clients. In many areas, we can do things that no other exhibits firm can.



*The Launcher!* at Fernbank Museum of Natural History in Atlanta, GA.







# FAQs

## What exhibits are available for purchase?

All the exhibits listed in this catalog are considered standard exhibits and are available for purchase. **Standard exhibits are our tried and true, ready to assemble exhibits.** If you see something you like, let us know! Each exhibit we create is made to order with careful considerations for your space and needs in mind.

## What types of exhibits do you specialize in?

Electro-mechanical interactive exhibits! **We believe interaction is the key to making an exhibit that will engage audiences time and time again and leave a lasting impression on young learners.** We offer exhibits in a wide array of themes ranging from light, to earthquakes, to Newton's Law of Motion, to fluid mechanics. Talk to us about our range of interactive themes and exhibit options for your learning space.

## Do you only work with museums?

**We work with everyone!** We've created interactive exhibits for marketing agencies, pharmaceutical companies, universities, hospitals, hotels, and of course children's and science museums!

## Do you fabricate your exhibits?

Yes, we fabricate all of our exhibits in our 77,000 sq workshop located in Tucson, AZ. **Unlike other exhibit makers, we take projects from concept to completion all under one roof.** Each and every project is designed, prototyped, fabricated, managed, and shipped using our in-house team of engineers, artists, designers, architects, welders, and skilled craftspeople. When an exhibit is near completion, we invite local kids to our workshop to test out the final piece.

## Do you design custom exhibits?

**Yes, we can engineer, design, prototype, fabricate, ship, and install custom exhibits.** We love working with clients to design new exhibits and develop fresh concepts for interactive experiences. Bringing us in during the beginning stages of a project ensures your exhibit is designed with infrastructure, theme, design, engineering, production, and installation in mind.



# FAQs

## I saw an exhibit on your website that I don't see in this brochure, is it available?

Many of the interactive exhibits we make are custom, one-off pieces. If the exhibit is not in the brochure, it is not currently available for production/purchase. **However, we are happy to work with you on an exhibit of your own using similar design strategies, ideas, and themes.**

## Why choose a standard exhibit vs. a custom exhibit?

If you are seeking a tried and tested exhibit, one of our standard exhibits is for you. **Our standard exhibits are any of the exhibits found in this catalog.** Standard exhibits have typically been installed in multiple locations and have a reputation for durability and visitor popularity.

## What things can I change or customize on your standard exhibits?

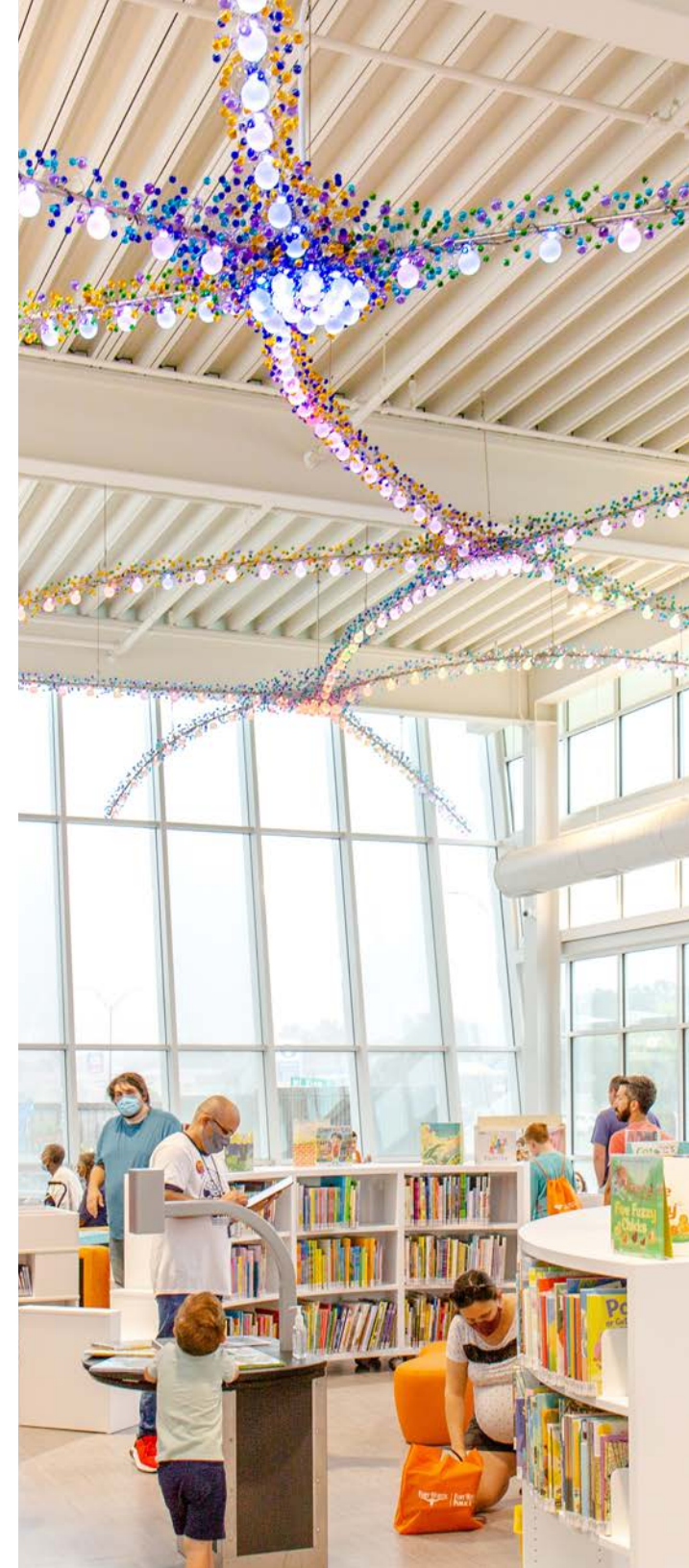
If you are purchasing a standard exhibit from our catalog, **you can often customize the colors (powder coating, HDPE, etc) to match your aesthetic and branding.** Most exhibits have space for graphics, which is a great opportunity to add customization. Our in-house design team can design and produce custom branded graphics for an additional cost.

## Why choose a custom exhibit vs. a standard exhibit?

**Have a new exhibit idea? We want to hear about it.** Many clients request a custom exhibit in order to stand out among other museums or to display an intriguing new concept. A custom Creative Machines exhibit is thoughtfully engineered and meticulously crafted and installed. A custom exhibit is well worth the investment and will keep visitors talking and coming back.

## Do you design and produce graphics for your exhibits?

**Yes. Our in-house design team can design, mock up, produce, and install custom graphics for your exhibit.** We work with you to capture your existing branding, colors, and aesthetic. We send proofs and documentation during each stage of the production process. We work with professional print services such as iZone to produce sturdy graphics for outdoor and interactive displays. We also work with a range of local print shops for exhibit graphics.





# FAQs

## Do you provide documentation during design and fabrication?

**Yes, we 3D model all of our exhibits and provide detailed drawing packets for review and approval.** During prototyping and fabrication, we provide professional progress photos and videos of fabrication, prototyping, and functionality. Want to see the progress in person? We always invite clients to visit and test out the exhibits themselves!

## Do you provide project management?

Yes, each and every exhibit project is assigned to an experienced project manager that is with you every step of the way. **The project manager is your main point of contact for each stage of your project** and will work with you to coordinate and communicate every aspect of your interactive exhibit.

## Do you make cabinets for your exhibits?

We don't specialize in woodworking or cabinetry, but **we have local partners who do if we need to make a custom cabinet and integrate interactive components.** If you are looking exclusively for cabinet production, we can recommend other exhibit companies that focus on that work.

## Do you install your exhibits?

**Yes, we offer a range of options for installation.** Our team can travel to your location and perform the entire installation, or we can send a small team to guide your installers to complete the installation. You may choose to install an exhibit yourself, but this is not recommended for many exhibits.

## What happens if my exhibit breaks?

**We provide detailed maintenance and troubleshooting manuals with each exhibit to help you fix any issue that might arise after installation.** If you are still having issues, give us a call! We are happy to help troubleshoot your issue no matter how much time has passed post-warranty.

## Can we visit your workshop?

**Please do! We often give tours and host visits at our shop in Tucson, AZ.** You can see our entire team in action and you might even get to test an exhibit or two! We are conveniently located close to the Tucson International Airport and I-10.



Exhibits you can count on.

# How to work with us

1. Review this catalogue.
2. Select the interactive exhibits you are interested in.
3. Reach out! We will answer any of your questions and provide a quote for your project.
4. If you are satisfied we will send a contract and start development of your project.
5. After contract signing, your exhibit(s) will go into production! We will provide you with engineered drawings and progress photos and videos every step of the way.
6. After fabrication and vigorous testing, your exhibits will be expertly packed and shipped to you.
7. Need installation? No problem. We can perform installation for you, or you can install it!

*Have an idea for something not in our catalogue? We can develop new exhibits with you! Set up a phone call today.*





Want to make a statement or create a photo-op at the entrance to your museum? We have you covered! We make an array of objects that inspire connection and interactivity outside of the museum. In addition to exhibits, we also specialize in large-scale public art sculptures. Our public art is more than just a statue; we create human powered kinetic pieces, monumental signage, and interactive light pieces.














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## Themes

-  AIR
-  MOVEMENT
-  LIGHT
-  BUILD
-  SOUND
-  CREATE
-  WATER
-  NATURAL SYSTEMS
-  GROUP PLAY





*Light Patterns* is a large scale version of the classic children's toy, LiteBrite. This exhibit allows visitors of all ages to make designs of their own using light transmitted through various brightly colored pegs. The wall-sized exhibit encourages artistic collaboration and teamwork. The multi-colored pegs are stored in bins at the foot of the exhibit allowing even the smallest of visitors a chance to create.

Because of the size of the wall, many visitors can work together on a large composition or find a section to fill in on their own. This exhibit encourages creativity and expression, as well as provides a great platform for guests to engage with other museum-goers and build relationships during their visit.

## Light Patterns

**Approximate Size**  
**Estimated Cost**  
**Curriculum/Learning Objectives**

4' height x 8' width; custom sizing also available  
4' x 8' sections are \$52,800 USD each;  
Free-form creation, properties of light and color, sensory processing skills

**Active Users**  
**Indoor/Outdoor**  
**Facility Requirements**

Allows for 2-6 users building on a single wall section at a time.  
Indoor use only; not portable  
Requires electrical power; Suitable existing wall studs required in order to safely hang sections on facility walls





# Turntables

Approximate Size	30" height x 60" in diameter
Estimated Cost	\$62,750 USD*
Curriculum/Learning Objectives	Physics, rotational inertia, Newton's Laws of Motion, centrifugal force
Active Users	Individuals or groups of 3-4 users per turntable
Recommended Use	Indoor or outdoor use; exhibit is portable within limits of its extension cord
Facility Requirements	Requires electrical power

\*Price reflects cost of one Turntable unit.  
 \*Toys/objects to spin on the Turntable are not included.



*Turntables* are a collaborative group activity exhibit that provides an open-ended platform for experimenting with rotational forces, momentum and the nature of orbits.

Users can experiment with rotational forces and speeds using a variety of rolling objects. Users press a button to start the large surface disc spinning and turn a knob to adjust the speed. The disc will spin with a speed between 5 rpm and 95 rpm with the knob turned fully counterclockwise and clockwise, respectively. The disc will spin for 2 minutes after the button is pushed.

*Turntables* are flexible in both their physical setup and their content, allowing for easy change to address different learning styles, group sizes, and physical locations.





*The Raceway at Discovery Cube in Orange County, CA.*





# The Raceway

Approximate Size	Largest footprint includes 6 tracks, 36.5' L x 40' W*
Estimated Cost	\$247,000 USD**
Curriculum/Learning Objectives	Energy, Force, Motion, Speed, STEM, Engineering, Design
Active Users	6 users can launch cars at a time
Recommended Use	Indoor use only; not portable
Facility Requirements	Requires electrical power

\*Multiple smaller sizes and configurations are possible at a reduced cost

\*\*Price includes 6 tracks, 4 build tables, car parts



*The Raceway* is an interactive racing exhibit with empowers kids to build a car, test it, and then re-engineer their design to win a race or beat a time. The exhibit begins at the build stations where visitors are able to design their car by picking a car “chassis,” a small, medium or large car “body,” small, medium, large wheels and place those wheels in different locations on the “chassis,” set of weights which they can add to the front or back of the car.

Once visitors are happy with their design, they can take their car to one of six tracks. Four of the tracks offer unique “terrains” including hills, turns, and straightaways. The final two tracks are a side by side race where visitors can test out their design against one another. Visitors insert the car into the launcher, pull it back and release sending the car flying over the track.





Ball Machine Sculptures delight audiences of all ages and backgrounds with their swooping tracks, ingenious devices, sound-producing elements, and charming miniatures.

Every ball machine we make shares our proven engineering and expresses different themes and sentiments. We have created Ball Machine Sculptures that illustrate many natural and mechanical processes, depict animals and regional attractions, and evoke the motion and emotion of various sports.

Today, there are nearly 250 Ball Machine Sculptures located in airports, hospitals, science museums, shopping centers, private collections, and public spaces around the world.

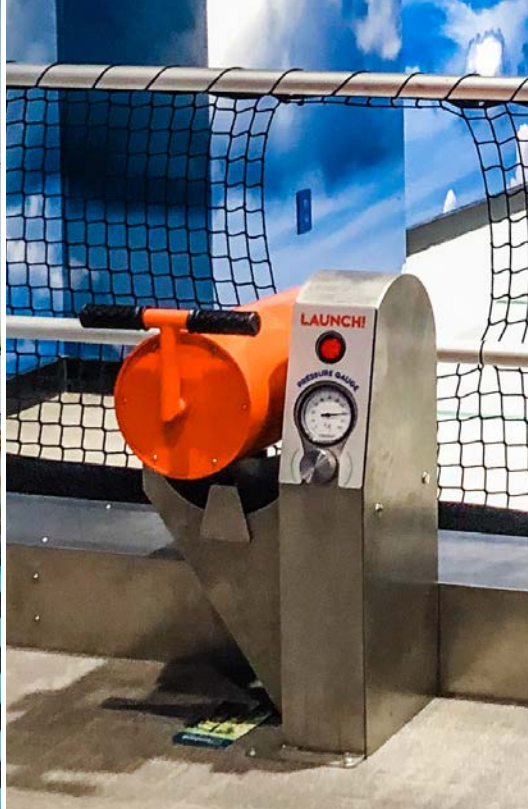
## Custom Ball Machine

<b>Approximate Size</b>	Dimensions vary
<b>Estimated Cost</b>	\$40,000 - \$500,000 USD*
<b>Curriculum/Learning Objectives</b>	Physics, machinery, motion, kinetic energy
<b>Active Users</b>	Active users dependent on interactivity level; Suitable for a large group of observers.
<b>Indoor/Outdoor</b>	Indoor/Outdoor
<b>Facility Requirements</b>	Electrical power required for motor

\*Price highly dependant on size, complexity, interactivity level, etc.

**Want more information on a custom Ball Machine for your space?  
We have you covered. Ask about our Ball Machine Catalog!**





# The Launcher!

**Approximate Size**  
**Estimated Cost**

20-30' length x 8' height x 10' width recommended\*  
\$75,250 - \$110, 000 USD\*\*

Price includes two launchers, one build table, and 100 flyers  
Price does not include net catch area which is typically built by the client and integrated into the building

**Curriculum/Learning Objectives**  
**Active Users**

Physics, aerodynamics, engineering, Newton's Laws of Motion  
1-2 users can launch at a time

**Recommended Use**  
**Facility Requirements**

Indoor use only; not portable  
Requires electrical power, facility-provided compressed air, and space for flyer build table(s).

\*Fits 2 launching lanes; ceiling height variable  
\*\*Price dependent on final overall size; Price includes two launchers, one build table, and 100 flyers. Price does not include net catch area which is typically built by the client and integrated into the building.



At *The Launcher!*, visitors launch custom-built foam flyers across the room using variable air pressure with just the push of a button. An adjustable knob on the side of each launcher allows guests to control the amount of compressed air they want to use to launch their aircraft skyward.

In addition to launching, visitors get to build their own unique flyers choosing from two building styles; a bird or a plane, 22 wing styles, and 6 tail styles all in varying colors. After visitors build their flyer they can test it, allowing visitors to explore which styles perform best. Depending on the body and wing configuration, flights of up to 30 feet can be achieved!





*Watercolor Wall* allows people to explore a rainbow of colors swirling before their eyes by placing their fingers on the circular touch-points.

Paint the wall by gazing into this beautiful mix of brightly lit colors. *Watercolor Wall* presents different colors along a continuously variable spectrum to its audience. There are countless variations for different colors and patterns allows viewers to continuously explore the piece.

Colors leak between the regions in a manner similar to how watercolor paint blends on paper. *Watercolor Wall* is a purposefully simple artwork that allows visitors of all ages and ability levels to have a reassuring and relaxing experience by viewing the blending of light and color. The standard design includes discs as touch points, but these can be customized with unique designs.

## Watercolor Wall

**Approximate Size**

6' H x 4' W x 1' D (can be oriented vertically or horizontally)

**Estimated Cost**

\$52,000 USD per 6' x 4' section;  
Add custom Touch-points for \$2,500;  
Custom sizing available

**Curriculum/Learning Objectives**

Color spectrum and color blending, light cycling

**Active Users**

Individuals or groups of 6-8 users at a time

**Indoor/Outdoor**

Indoor use only; not portable

**Facility Requirements**

Requires electrical power



Watercolor Wall at Thinkery in  
Austin, TX.







Located along the length of the museum, *Roll It* is a fantastic, flexible landscape of perforated wall sections, ramps, and movable racetracks. The perforations are located on all the wall surfaces and also on freestanding workstations throughout the space. The workstations provide a structure that children use to place and connect track. Workstations are also used to store rubber track and clips that can be used for creating 3D roller coasters and race tracks.

Guests can create their own roller coaster with loops and hills, then evaluate their creation by rolling a ball down the track. Small metal buckets can be used to create targets for catching balls as they roll off the end of a track section. Small step ladders are an easy way to add height to the track for even the smallest museum-goers.

## Roll It

**Approximate Size**  
**Estimated Cost**  
**Curriculum/Learning Objectives**  
**Active Users**

**Recommended Use**  
**Facility Requirements**

Dimensions vary; available in custom shapes and sizes  
 Price dependent on size and shape  
 Physics, Newton's laws of motion, gear and pulley mechanisms  
 Individuals or groups of 2-6 users building on a single wall section at a time  
 Indoor use only; not portable  
 Suitable existing wall studs required in order to safely hang sections on facility walls.

\*Please inquire for pricing information for your space.  
 \*Roller coaster toys included.





# Rate the Risk

<b>Approximate Size</b>	71" length x 7" depth x 47" height
<b>Estimated Cost</b>	\$42,000 USD
<b>Curriculum/Learning Objectives</b>	Public opinion, current events*
<b>Active Users</b>	1-3 active users at a time
<b>Indoor/Outdoor</b>	Indoor use only; not portable
<b>Facility Requirements</b>	Requires electrical power. Suitable existing wall studs required in order to safely hang sections on facility walls.

\*This exhibit can be customized for any learning theme.



Rate the Risk allows museum visitors to create an ever-changing physical expression of collective opinion. Visitors are asked to consider simple environmental risk concepts (e.g., pollution, the loss of species, climate change, the quality of tap water, the impact of individual actions, non-point vs. point pollution, etc.) and vote on “What concerns you most?” To vote, users place a red Plexiglas peg in a hole surrounding that risk, which then lights up like a LiteBrite. Visitors can move pegs from one risk to another as they wish. This user-generated sculpture will always be in flux, representing the diversity of views as they flow through the museum.

This experience is intended to reflect current events in order to make direct links to contemporary issues that are often hard to address in museum exhibitions. This exhibit can be custom-tailored to fit a wide array of topics.

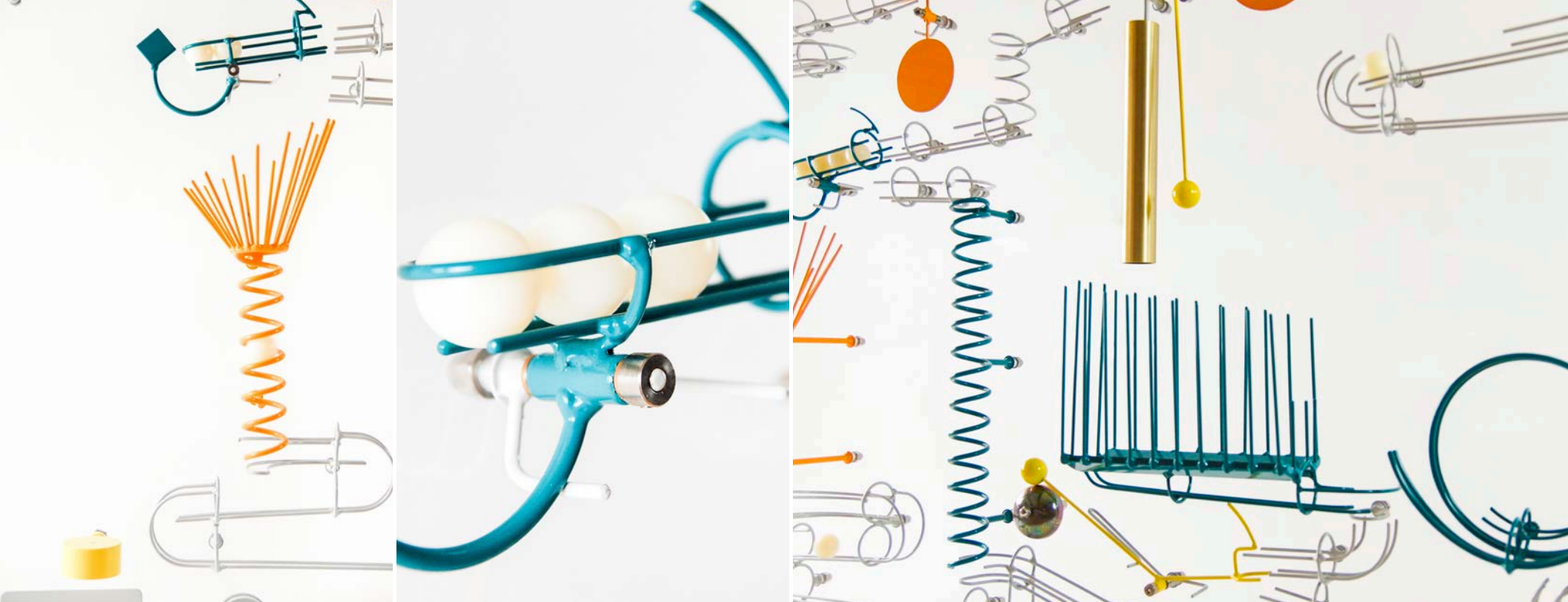


Summer Fantasy Limited Edition Ball Machine features a warm color palette.



Rhoads





# Summer Fantasy

<b>Approximate Size</b>	5' length x 10'' width x 3' height
<b>Estimated Cost</b>	\$22,000 USD*
<b>Curriculum/Learning Objectives</b>	Physics, Newton's Laws of Motion, gravity, kinetic properties
<b>Active Users</b>	Many visitors can gather around and observe at a time
<b>Indoor/Outdoor</b>	Indoor use only; not portable
<b>Facility Requirements</b>	Requires electrical power

\*Full protective casework enclosure available for an additional cost.

\*Custom color options available for additional cost.

\*On/off activation switch included.

\*Available as a table top unit or wall mounted.



The Limited Edition *Summer Fantasy* is a series of 50 ball machine sculptures. Each sculpture is numbered and features the signature of the famed kinetic artist, George Rhoads.

The piece includes 3 randomizing pendulums, a steel bounce block, 2 hammer chimes, a bounce & catch, and 2 bell hammers. Summer Fantasy boasts a cheerful and warm color palette. Each sculpture measures 3' x 5' x 10" and can be wall mounted or built into an enclosure.





The Limited Edition *Winter Fantasy* is a series of 50 ball machine sculptures. Each sculpture is numbered and features the signature of the famed kinetic artist, George Rhoads.

The piece includes 3 randomizing pendulums, a steel bounce block, 2 hammer chimes, a bounce & catch, and 2 bell hammers. *Winter Fantasy* boasts a refreshing and cool color palette. Each sculpture measures 3' x 5' x 10" and can be wall mounted or built into an enclosure.

## Winter Fantasy

<b>Approximate Size</b>	5' length x 10" width x 3' height
<b>Estimated Cost</b>	\$22,000 USD*
<b>Curriculum/Learning Objectives</b>	Physics, Newton's Laws of Motion, gravity, kinetic properties
<b>Active Users</b>	Many visitors can gather around and observe at a time
<b>Indoor/Outdoor</b>	Indoor use only; not portable
<b>Facility Requirements</b>	Requires electrical power

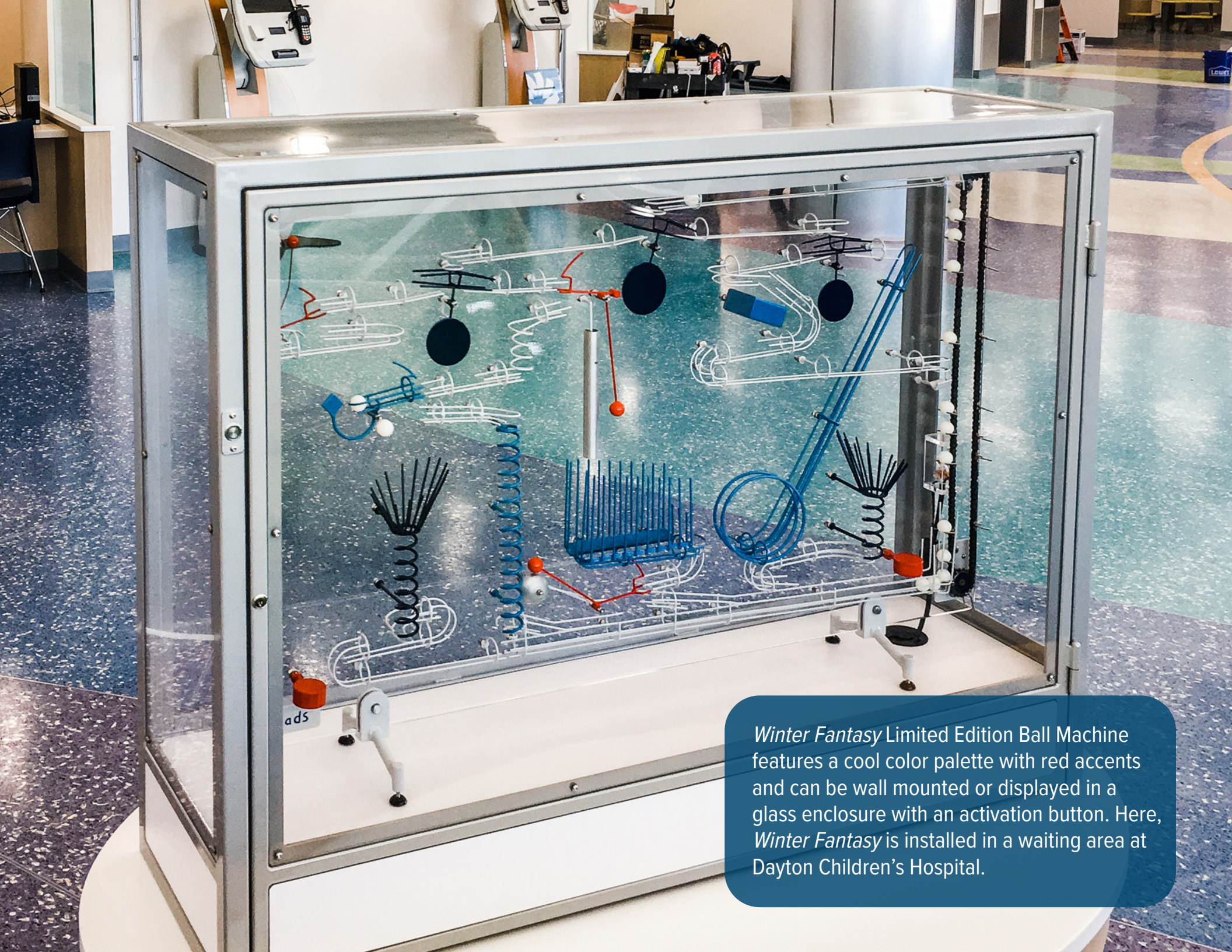
\*Full protective casework enclosure available for an additional cost.

\*Custom color options available for additional cost.

\*On/off activation switch included.

\*Available as a table top unit or wall mounted.





*Winter Fantasy* Limited Edition Ball Machine features a cool color palette with red accents and can be wall mounted or displayed in a glass enclosure with an activation button. Here, *Winter Fantasy* is installed in a waiting area at Dayton Children's Hospital.





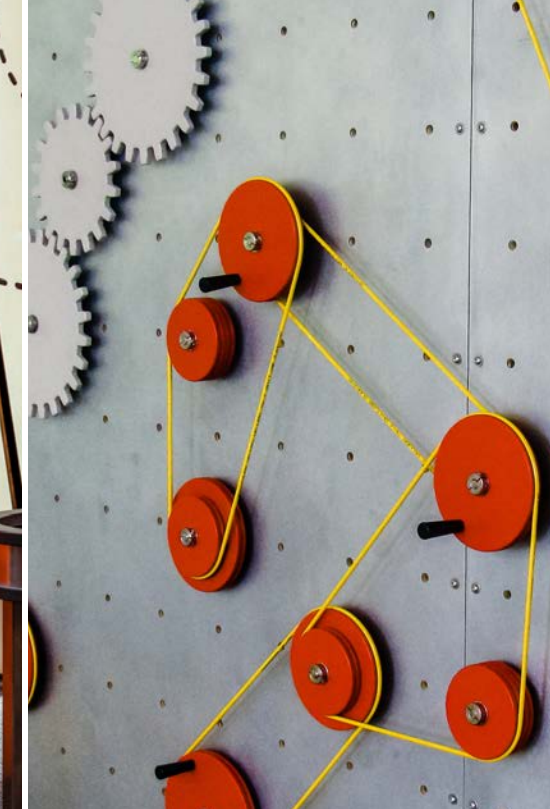
*Mindball* is a fun and interactive exhibit that tests visitors focusing abilities. Exhibit users have the opportunity to challenge their opponent in a mental competition. The goal of playing is to move the ball across the table towards your opponent's side until it reaches the end. Each side of the table features a headset that players set their foreheads against to play. After pushing the start button, each headset begins to read the visitors' EEG signals.

As readings are taken, the large overhead ball begins to move towards the visitor with the lower score. Players can see their progress through a small window on the tabletop that has a small metal ball that moves back and forth depending on who is focusing the hardest. Once the ball reaches one side, the game is over and is ready for new a new competition.

## Mindball

Approximate Size	Tabletop unit: 60" height x 80" length x 32" width
Estimated Cost	\$95,225
Curriculum/Learning Objectives	Mental strength, relaxation, focus
Active Users	2 players required at a time
Recommended Use	Indoor use only; tabletop unit portable within limits of exhibit extension cord.
Facility Requirements	Requires electrical power





# Linkages & Pulleys

<b>Approximate Size</b>	Measurements vary depending on space available
<b>Estimated Cost</b>	\$133,000 USD*
<b>Curriculum/Learning Objectives</b>	Gear and pulley mechanisms, mechanics, building
<b>Active Users</b>	Individuals or 2-6 people building on a single section at a time
<b>Indoor/Outdoor</b>	Indoor use only; not portable
<b>Facility Requirements</b>	Large open area in museum with nearby walls: Suitable existing wall studs required in order to safely hang sections on facility walls

\*Build objects included



*Linkages & Pulleys* is composed of a series of peg walls, boxes, and tables. Visitors are able to use construction sets including pulleys, stretchy bands, struts, bars, joining plates, pins, and straps to construct complex structures. A central component of this exhibit is a vertical build station, which can be a large peg wall or a wall with four mechanisms incorporated into it which perform the following functions: windshield wipers, a cam, a piston, and a Geneva gear.

The construction sets have no official play method, allowing guests to explore using creativity and imagination. All parts can be connected making building possibilities virtually limitless.

Other versions of this exhibit include round storage bins, strut storage bins, and wall storage bins to house parts.





Our *Wind Column* exhibit is a wind producing column that allows visitors to send objects flying into the air. Visitors use a variety of everyday materials such as paper, scarves, and balloons to invent their own flying contraptions. Visitors test their devices by placing them in opening on the bottom of the plastic column and adjusting the intensity of airflow. Workstations surrounding *Wind Column* allow visitors to create and then redesign their flying devices as many times as they wish. Visitors are encouraged to test their designs and compare their results with others, creating a collaborative learning experience.

Objects/toys to place in the wind column are not included, but we'd be happy to recommend options. Successfully proven objects include: scarves, parachute army men, and visitor made flying machines from activities with everyday objects like paper cups and Popsicle sticks, etc.

## Wind Column

<b>Approximate Size</b>	35" diameter x 7' height
<b>Estimated Cost</b>	\$45,000*
<b>Curriculum/Learning Objectives</b>	Physics, aerodynamics, Newton's Laws of Motion
<b>Active Users</b>	Individuals or groups of 3-5 users per column at a time
<b>Recommended Use</b>	Indoor or outdoor use; exhibit is portable within limits of its extension cord
<b>Facility Requirements</b>	Requires electrical power

\*Price reflects cost for single Wind Column Unit; toys/flying objects not provided.





Students from a local elementary school visit the Creative Machines workshop to test our *Wind Column* exhibit.





*Animation Workstation* allows visitors to create their own stop-motion animations by moving objects on a stage and taking a series of still frames.

The workstation includes a staging area in which visitors manipulate props, a video camera that records, a computer, an LCD monitor, and nine push buttons. Typical props range from small colorful blocks to animal figurines, but almost any small object will work. Blocks can be used to build structures or landscapes, make funny faces or spell out messages. Visitors can use *Animation Workstation* to create elaborate stories following a single character or simply to wish someone Happy Birthday in a unique way.

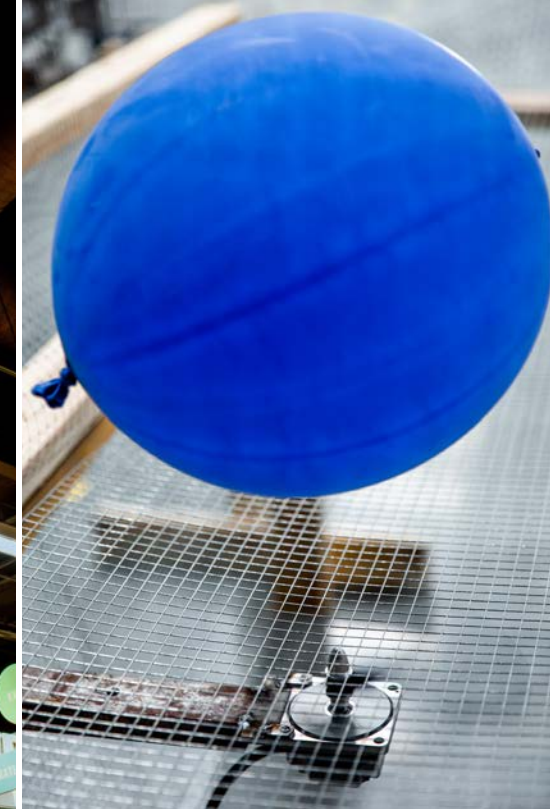
## Animation Workstation

<b>Approximate Size</b>	72" length x 34" width x 68" height
<b>Workstation and Browser in Cabinet</b>	\$73,350**
<b>Workstation in Cabinet</b>	\$59,500*
<b>Workstation Electronics Package</b>	\$14,000 USD*
<b>Browser Electronics Package</b>	\$14,000 USD**
<b>Curriculum/Learning Objectives</b>	Stop Motion, spatial reasoning, storytelling
<b>Active Users</b>	1-2 active users at a time
<b>Indoor/Outdoor</b>	Indoor use only; exhibit is portable within limits of its extension cord
<b>Facility Requirements</b>	Requires electrical power

\*Toys/props not included

\*\*Browser package includes ability to email completed animations to share with others.





# Overhead Fans

**Approximate Size**

11'-5" length x 7' 8" width x 6'11" height

**Estimated Cost**

\$99,300 USD

**Curriculum/Learning Objectives**

Discovery and surprise, group collaboration

**Active Users**

Individuals or groups of up to 12 users at a time

**Indoor/Outdoor**

Indoor use only; not portable

**Facility Requirements**

Requires electrical power; Requires suitable ceiling beam and mounting points to support exhibit's weight and provide lateral bracing into order to safely hang above visitors Min. 10 ft clearance under exhibit. \*

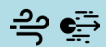
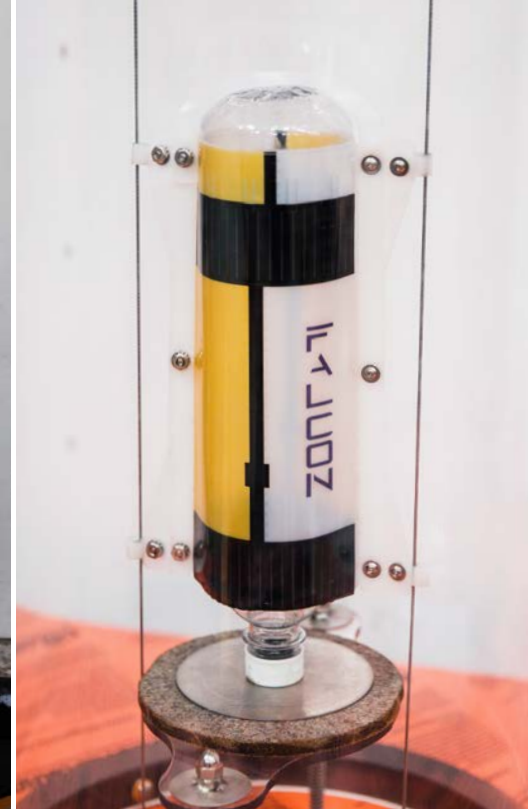
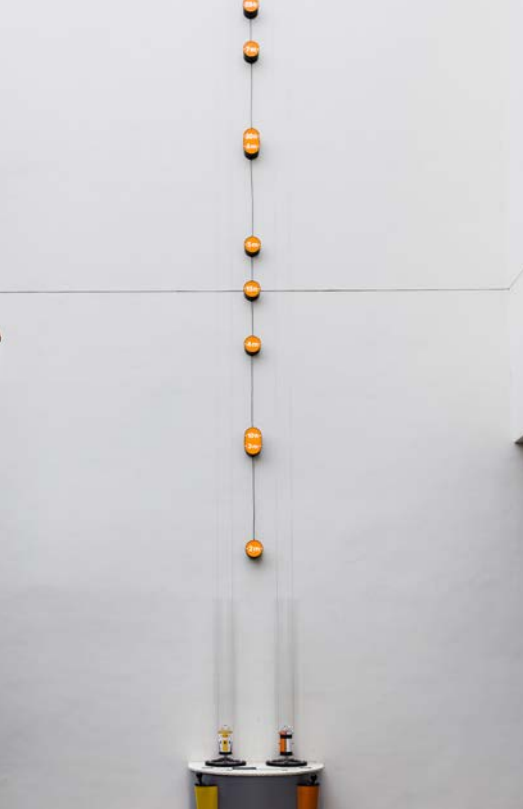
\*Exhibit uses balloons that need to be replaced frequently by museum staff.



Nestled up high in the ceiling, *Overhead Fans* allows guests to stand beneath one of twelve spots on the floor below where photoelectric occupancy sensors point downward at reflective targets. When a user breaks the photoelectric sensor beam, the corresponding fan quickly turns on to propel and levitate a balloon.

Multiple visitors can work together to complete challenges such as propelling the balloon in a circle around the exhibit by turning on the fans in succession using their bodies. Each fan motor has an LED ring that illuminates to provide visual feedback to users when the fans turns on.





With *Air Rockets*, guests pressurize and launch bottle rockets to varying heights up guide wires with a great whoosh! of escaping air. Using the respective 'Fill' and 'Launch' buttons, the rocket is filled to the desired pressure indicated on the pressure gauge and then launched straight up into the air.


Within seconds of launch, the rocket falls back along the guide wires to a spring-loaded landing pad. The cycle time is short enough that visitors can quickly try a variety of air pressures. Once a rocket has landed, the system resets itself and is ready to pressurize again within a few seconds. Each rocket is completely independent and can be used simultaneously with the other rocket or separately.

# Air Rockets

<b>Approximate Size</b>	84" height x 50" length x 33" width*
<b>Estimated Cost</b>	\$63,800 USD
<b>Curriculum/Learning Objectives</b>	Aerodynamics, physics, pressure vessel
<b>Active Users</b>	1-2 active users at a time
<b>Indoor/Outdoor</b>	Indoor or outdoor use; not portable
<b>Facility Requirements</b>	Requires electrical power and compressed air line

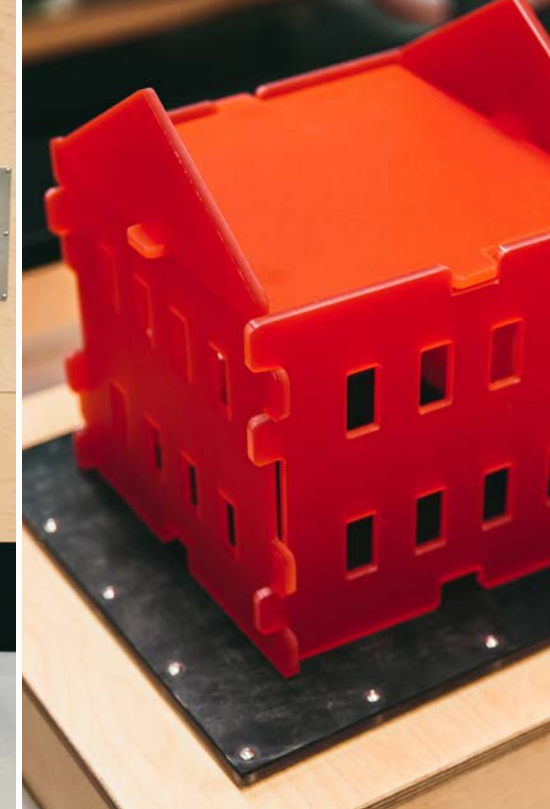
\*Guide wires are used to determine maximum rocket launch height and can be set to a variety of heights up to about 35 feet.



A photograph of two young girls in a workshop setting. They are looking upwards with interest at a tall, clear cylindrical apparatus. The girl in the foreground is wearing a black t-shirt and a black baseball cap, with her hand resting on a table covered with a red patterned cloth. The girl behind her is wearing a blue t-shirt and glasses, pointing upwards. The apparatus consists of several vertical tubes with various components inside, including what looks like a small rocket or probe. The background shows a workshop with tables, tools, and other people.

6th graders visit the Creative Machines workshop and try out the in-progress Air Rockets exhibit.





What principles of building construction are important for helping a building to survive an earthquake?

With *Shake Table*, visitors construct a building, place it on the shake surface, select a historic earthquake from the computer menu and observe how well the building withstands the tremors. A slow-motion video replay of the building during the earthquake is viewable on the screen so that visitors can tell exactly how their test building failed and try again.

Visitors will learn about the importance of various building principles as they adjust their buildings to withstand stronger and stronger earthquakes.

## Shake Table

<b>Approximate Size</b>	70" length x 65" width x 80" height
<b>Estimated Cost</b>	\$95,000 USD
<b>Curriculum/Learning Objectives</b>	Plate tectonics, structural integrity*
<b>Active Users</b>	Individuals or small groups of 2-3 users at a time
<b>Indoor/Outdoor</b>	Indoor use only
<b>Facility Requirements</b>	Requires electrical power; portable within limits of its extension cord.

\*Includes 2 types of building sets: tilt-up construction and rod-and-node construction.





# Liquefaction

**Approximate Size** 80" length x 26" width x 45 height

**Estimated Cost** \$63,500 USD\*

**Curriculum/Learning Objectives** Ground surface changes, soil integrity and stability, earthquakes

**Active Users** 1-2 users per station at a time

**Indoor/Outdoor** Indoor use only; not portable

**Facility Requirements** Requires electrical power

\*Includes objects in bins



*Liquefaction* is a physical process that causes soils to temporarily lose strength and behave more like a viscous fluid than a solid.

Our *Liquefaction* exhibit consists of two stations consisting of acrylic tubes filled with glass abrasive media representing soil and either houses, a car, or a tree. Visitors pull on the cords protruding from the lids to reset the objects to be on top of the soil. Users then press the red button to activate vibratory motors, causing a liquefaction effect.

The motors will run for a programmed length of time from the initial button press, meaning that the time can be extended indefinitely by pressing the button again. Users can adjust the intensity of the motors by turning the knob, resulting in objects sinking faster, slower, or even rising out of the soil.





In *Water Play*, users experience the properties of water and experiment with water flow and blockage in a large stainless steel basin.

Water flows constantly down a gently sloped surface in the basin. A variety of objects are available for the user to build embankments, channels, and dams to divert and block the water flow. There is a pinwheel that will spin when placed in the current and several small boats, fish and crayfish that will float (or move along the bottom) and swirl around in the eddies created by the dams. Pieces are meant to represent either solid or permeable materials. The flowing water moves downstream to drain before it is filtered and recirculated.

The water is filtered before getting recirculated by a particulate and ultraviolet filter, as well as a copper ion generator to help kill any germs. Water levels are controlled by a micro-controller to prevent overflow in the event of large dams.

## Water Play

<b>Approximate Size</b>	132" length x 60" width x 30" height
<b>Estimated Cost</b>	\$114,500 USD*
<b>Curriculum/Learning Objectives</b>	Fluid mechanics, interrupting and changing water flow
<b>Active Users</b>	Individuals or groups up to 6 users at a time
<b>Indoor/Outdoor</b>	Indoor or outdoor use; not portable
<b>Facility Requirements</b>	Requires electrical power; municipal (or similar) water supply

\*Initial dam pieces included, but we recommend the museum also provide additional water toys.





# Hot Wax Volcano

**Approximate Size**

83" length x 56" width x 38" height

**Estimated Cost**

\$92,500 USD

**Curriculum/Learning Objectives**

Volcanic eruptions, types of volcanoes, plate tectonics

**Active Users**

Individuals or groups up to 6 users at a time

**Indoor/Outdoor**

Indoor use only; not portable

**Facility Requirements**

Requires electrical power\*

\*Exhibit requires that staff periodically remove wax and return it to the melter.



*Hot Wax Volcano* allows visitors to pump hot wax up through a steel plate to simulate the formation of shield volcanoes through the changing flow rates of hot lava.

Visitors have control over the wax speed, pressure, and flow thereby duplicating the features of natural phenomenon such as lava tubes.

Turning a hand crank clockwise pushes molten wax out of the hole in the steel plate. Wax then flows over the surface to create an additive volcano-like structure. Using various combinations of pumping, waiting and sucking, qualities of real flowing lava are easily achieved.





*Jump Time* uses a high-speed digital camera to capture the motion of visitors as they jump.

As a visitor steps onto the mat switch, the overhead lights turn on, telling the visitor that the exhibit is ready to go. The visitor jumps vertically, landing back on the mat as the computer records their jump and landing. A sensor along the floor also calculates how many seconds they were off the ground. The digital display shows how many hundredths of a second they spent aloft.

The monitor displays the jumps in slow motion forward and backward. Visitors gain a new understanding of the mechanics of a person jumping as the slow-motion replay emphasizes each movement. A scale behind the jumper allows visitors to see how high they have jumped.

## Jump Time

**Approximate Size**  
**Estimated Cost**

9' length x 10' height x 8' depth  
Jump Time and Cabinetry: \$121,750 USD  
Electronics package only: \$28,500 USD

**Curriculum/Learning Objectives**

Motion and physics

**Active Users**

1 visitor can jump at a time with an area for onlookers to observe

**Indoor/Outdoor**

Indoor use only, not portable

**Facility Requirements**

Requires electrical power





Young museum goers at Inspiria Science Center in Norway are caught enjoying themselves at our *Jump Time* exhibit.





*Mosaic Faces* allows visitors to create a unique mosaic of their own image. Visitors start by taking a picture of their face through one of the kiosks on either side. The exhibit then generates a version of their image made up from hundreds of other photos. *Mosaic Faces* demonstrates how our eyes see different images and color when playing with relative image scale.

Visitors can select from multiple themes when creating their mosaic. When the mosaic has been completed visitors have the option to send their image via email.

## Mosaic Faces

Approximate Size  
Estimated Cost

9' height x 8.5' width

\$84,000 USD;

Electronics package only: \$27,400 USD

Curriculum/Learning Objectives

Spatial reasoning, visual perception

Active Users

1-2 users per station at a time

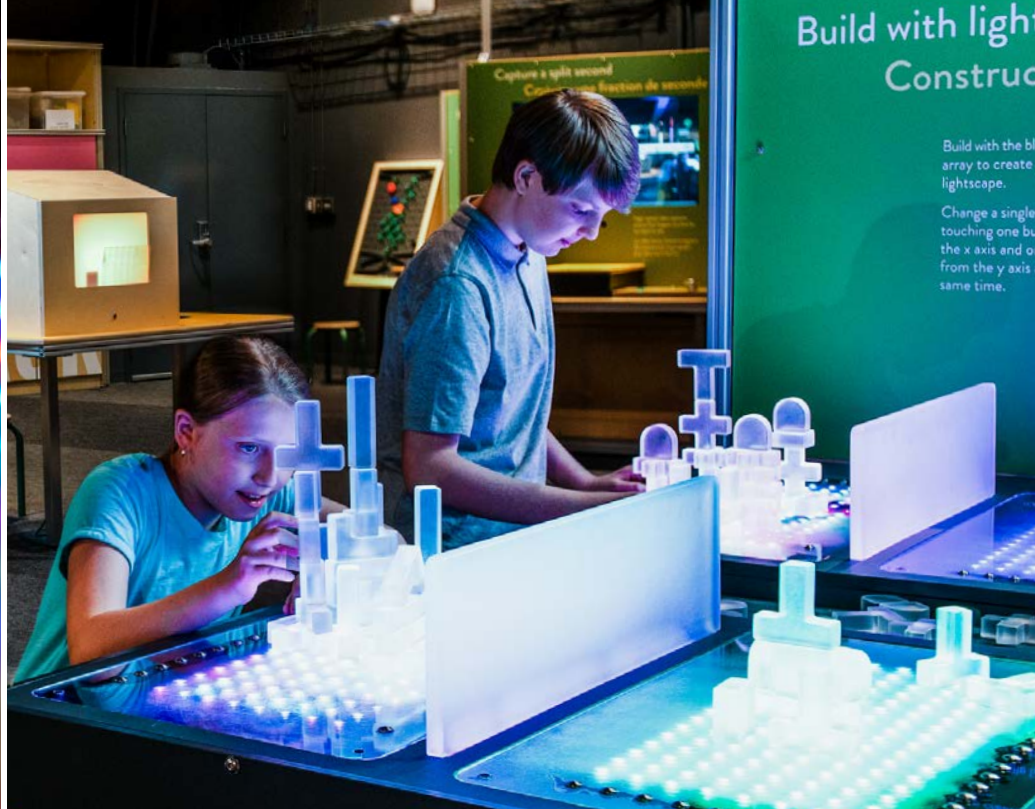
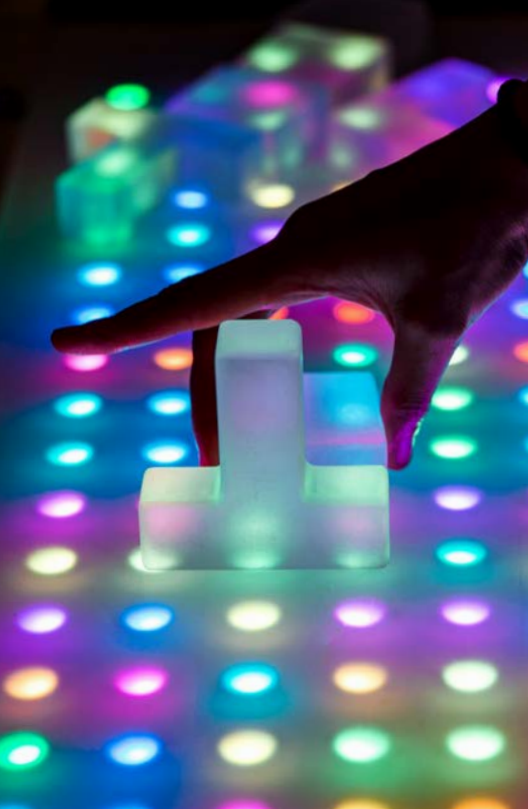
Indoor/Outdoor

Indoor use only; not portable

Facility Requirements

Requires electrical power and an internet connection.





# Building with Light

<b>Approximate Size</b>	80" length x 40" width x 80" height
<b>Estimated Cost</b>	\$80,000 USD*
<b>Curriculum/Learning Objectives</b>	Light diffusion properties, construction play
<b>Active Users</b>	Individuals or groups of 2-4 users at a time
<b>Indoor/Outdoor</b>	Indoor use only; exhibit is portable within limits of its extension cord
<b>Facility Requirements</b>	Requires electrical power

\*Exhibit comes with custom acrylic diffusing pieces.



*Building with Light* allows guests to work at one of four stations with rows of colorful LED lighting. Visitors build with sanded acrylic TETRIS pieces, creating shapes and designs on top of a kaleidoscopic color-changing surface.

Guests use touch-points to control colored LEDs as entire rows or columns. There are eight rows of LED strips each with sixteen individually addressable LEDs. By holding one vertical and one horizontal touch-point at the same time, visitors are able to control individual points of lights rather than the entire strip allowing people the freedom to design and create complex light patterns.

Light from the LEDs illuminate the acrylic building pieces and allow the guest to transmit light from block to block giving them the feeling that they are actually building with color. The LED colors can be reset to default colors at any point.





At *Painting with Light*, visitors can create complex digital drawings even if they don't consider themselves an artist.

Visitors start by picking a shape and draw within that shape on the digital kiosk screen. That shape becomes a "tile" that is then repeated and mirrored to become an elaborate tessellation pattern. The pattern is then projected onto the wall creating a fantastic wallpaper design. Visitors can control the design of their illuminated wallpaper by using an assortment of tools including various brushes and stamps.

Use *Painting with Light* on its own, or pair it with *Light & Shadow* (next page) for an extra layer of interactive fun.

## Painting with Light

<b>Approximate Size</b>	36" height x 18" width
<b>Estimated Cost</b>	\$72,000 USD*
<b>Curriculum/Learning Objectives</b>	Free-form creation, self-expression, spatial reasoning
<b>Active Users</b>	1 user at a time
<b>Indoor/Outdoor</b>	Indoor use only; not portable
<b>Facility Requirements</b>	Requires electrical power





# Light & Shadow

<b>Approximate Size</b>	Dimensions vary dependent on space available
<b>Estimated Cost</b>	\$72,000 USD*
<b>Curriculum/Learning Objectives</b>	Spatial reasoning, free-form creation, self-expression, properties of light
<b>Active Users</b>	Individuals or groups of 2-4 users at a time
<b>Indoor/Outdoor</b>	Indoor use only; not portable
<b>Facility Requirements</b>	Requires electrical power

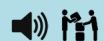
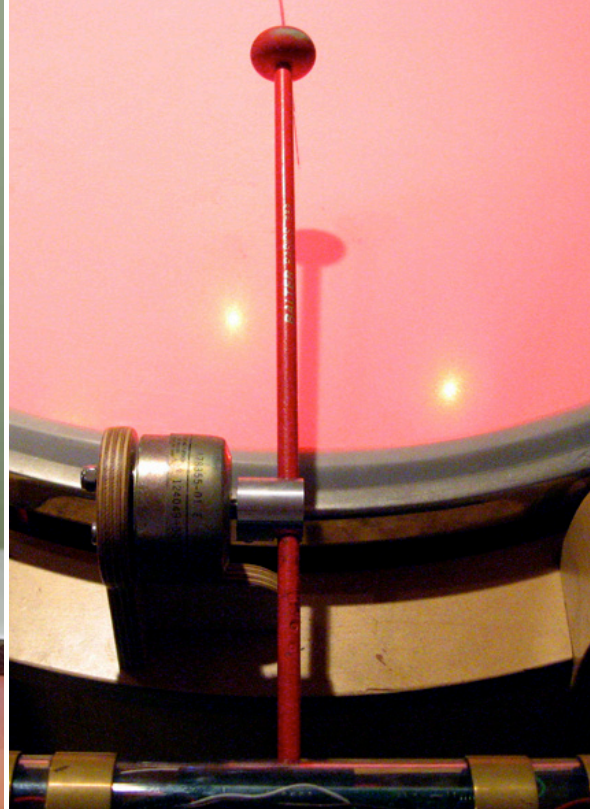
\*Boxes and other objects included.



Visitors work together using a touch screen, projector, and 3D corrugated boxes to create a world of light and shadow.

*Light & Shadow* lets you draw images on a touch screen, and these images are projected onto a white wall and boxes of various shapes and sizes. People can move, stack, and build with the boxes to create a landscape to receive the projected images, and interact with the colorful 3D world they created.





*Heartbeat Drum* is an interactive exhibit that allows visitors to explore a meaningful relationship between their heartbeat and music. When visitors place both hands on the drum handles, a drumstick beats the drum in rhythm with the visitor's heartbeat. If the visitor is calm the drum will beat at a slower rate; if the visitor is excited the drum will beat at a faster rate.

The double-sided handles allow for two visitors to interact with the exhibit at a time. Visitors can compare their heartbeats and work together to create a beat. It is possible through time and coordination for the visitors to slow or speed up their pulse so that the drum beats in unison.

## Heartbeat Drum

<b>Approximate Size</b>	53" length x 42" width x 44" height
<b>Estimated Cost</b>	\$55,500 USD
<b>Curriculum/Learning Objectives</b>	Rhythm of a beating heart/pulse, blood circulation
<b>Active Users</b>	1-2 users at a time
<b>Indoor/Outdoor</b>	Indoor or outdoor use; portable
<b>Facility Requirements</b>	Requires electrical power





# Ball Wall

Approximate Size	95" length x 12" width x 72" height*
Estimated Cost	\$48,500 USD*
Curriculum/Learning Objectives	Motor function, assembly, group play, puzzle activity
Active Users	1-5 individuals at a time
Indoor/Outdoor	Indoor use recommended; portable
Facility Requirements	No electrical power required

\*Size and price may vary depending on space



*Ball Wall* is a simple yet ultra-fun wall construction set consisting of various types of tubes, tees, spirals, bridge structures and balls that fasten to a wall, engaging engineering activity to challenge inventors young and old. All pieces adhere to the magnetic wall and invite visitors to create various pathways for which the balls can travel down from one area to another. There are endless variations of which the wall can be constructed, giving users freedom to explore many ways in which to allow the ball to travel.

*Ball Wall* is easily adapted to a range of scales and settings. A small wall is perfect for a preschool, where kids' mastery grows exponentially with daily use. A big wall is great for big box museums, for a huge dose of family-friendly prolonged engagement.





The *Scarf Pipe* exhibit (also known as *Here to There*) gives visitors the opportunity to watch brightly colored scarves or pom-poms zoom through a system of transparent tubes.

Visitors can insert scarves and the venturi effect pulls them through the tubes before they fly out of openings into the room. This tubing can be attached to a wall, placed overhead, and can be scaled to fit different spaces. Even though the exhibit seems simple, it is fun for children of all ages (and also adults)!

## Scarf Pipe

<b>Approximate Size</b>	125" length x 22" width X 107" height*
<b>Estimated Cost</b>	\$61,250 USD*
<b>Curriculum/Learning Objectives</b>	Group play, motion, speed
<b>Active Users</b>	1-4 individuals at a time
<b>Indoor/Outdoor</b>	Indoor use only
<b>Facility Requirements</b>	Requires electrical power

\*Size dependent on space available

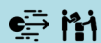
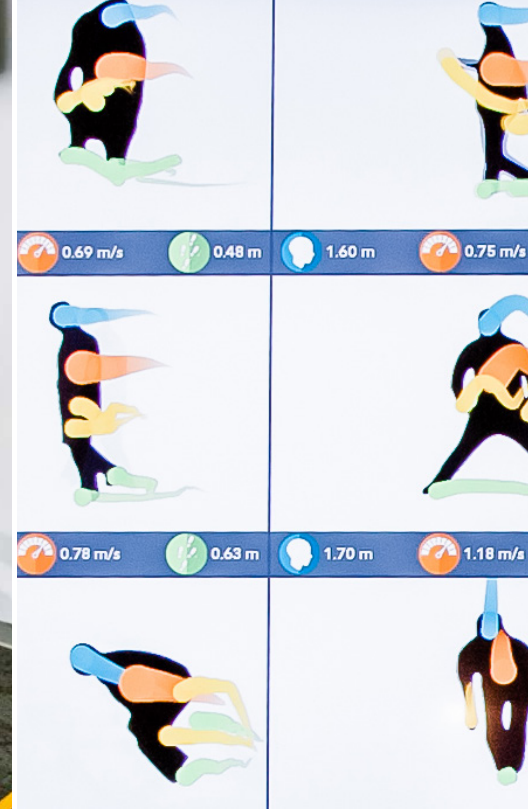
\*Price provided is the starting price for the given dimensions





*Scarf Pipe (also known as Here to There) at MOXI The Wolf Museum of Exploration and Innovation.*





*Walk, Leap, Jump* is part performance (a stage to capture silly walks and dances as looping digital animations) and part scientific data collection.

Visitors run, walk, skip, dance and jump about in front of a screen. The camera and computer system captures their movement and analyzes their stride, height and speed. The computer can calculate and display miles per hour, amount of energy used, calories burned and compare data to other visitors. It also displays cumulative animations of previous visitors moving and dancing together on screens *overhead*.

## Walk, Leap, Jump

<b>Approximate Size</b>	Dependent on space available. The camera area is 11' length by 4.5' width. Monitors can be mounted in different locations.
<b>Estimated Cost</b>	\$63,000 USD
<b>Curriculum/Learning Objectives</b>	Movement, bodily kinesthetics
<b>Active Users</b>	1 visitor can perform at a time with an area for onlookers to observe
<b>Indoor/Outdoor</b>	Indoor use only; not portable
<b>Facility Requirements</b>	Requires electrical power





# Magnetic Island

Approximate Size	3.5' height x 2.5' diameter
Estimated Cost	\$43,950 USD
Curriculum/Learning Objectives	Magnetism, free-form creation
Active Users	Individuals or groups of 2-4 users at a time
Indoor/Outdoor	Indoor use only; portable
Facility Requirements	No electrical power required

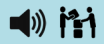
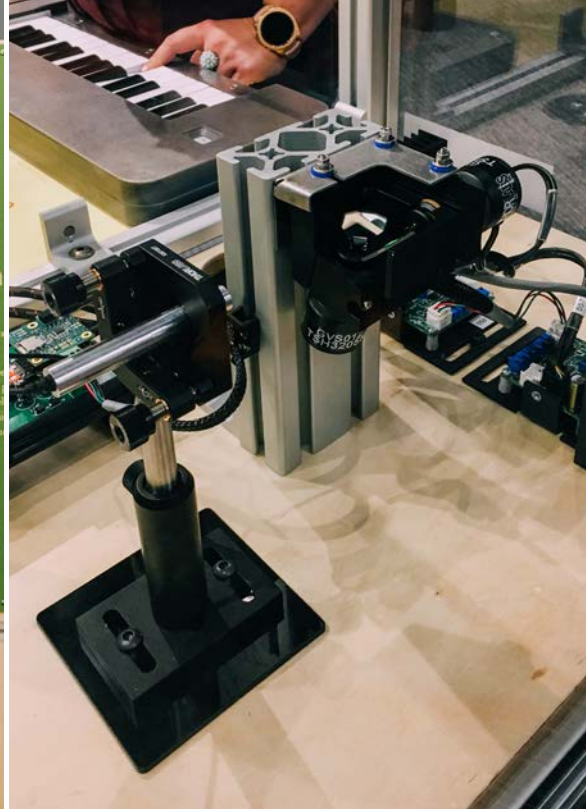


*Magnetic Island* is comprised of three multi-level “island” tiers that have strong neodymium magnets at their center. Visitors create simple structures using small metal washers that are attracted to the magnets. Washers are stored in the tiered dishes as well as in the base of the exhibit.

*Magnetic Island* is powered by creativity and imagination. Visitors can build their magnetic washer structures in a variety of directions and forms, as well as bridging them between the columns and islands. There are no switches or devices to turn off for this exhibit.

The neodymium magnet rings are very strong. The exhibit has prominent warning labels for those with pacemakers. It is recommended that people with pacemakers do not get within two feet of the exhibit.





Discover patterns in music! The *Lissajous* exhibit allows visitors to experiment with different combinations and learn what patterns they can make.

This exhibit uses a laser galvanometer to create Lissajous curves on a distant target. The curves are controlled using two keyboards next to the galvanometer, one for each axis of the curve.

Entering the same note on each keyboard will produce an ellipse with an aspect ratio (ellipticity) related to the timing of the note inputs. Entering different notes on the two keyboards will produce a more complex curve, with complexity increasing with increasing note difference. An audio amplifier and speaker are provided to generate the tones corresponding to each note, allowing users to correlate sound to the curves.

## Lissajous

Approximate Size	58" length x 21" width x 60" height
Estimated Cost	\$56,000 USD
Curriculum/Learning Objectives	Sound frequencies, frequency and phase measurement, musical play
Active Users	1-2 users at a time
Indoor/Outdoor	Indoor use only
Facility Requirements	Requires electrical power





## Rotating Cogs

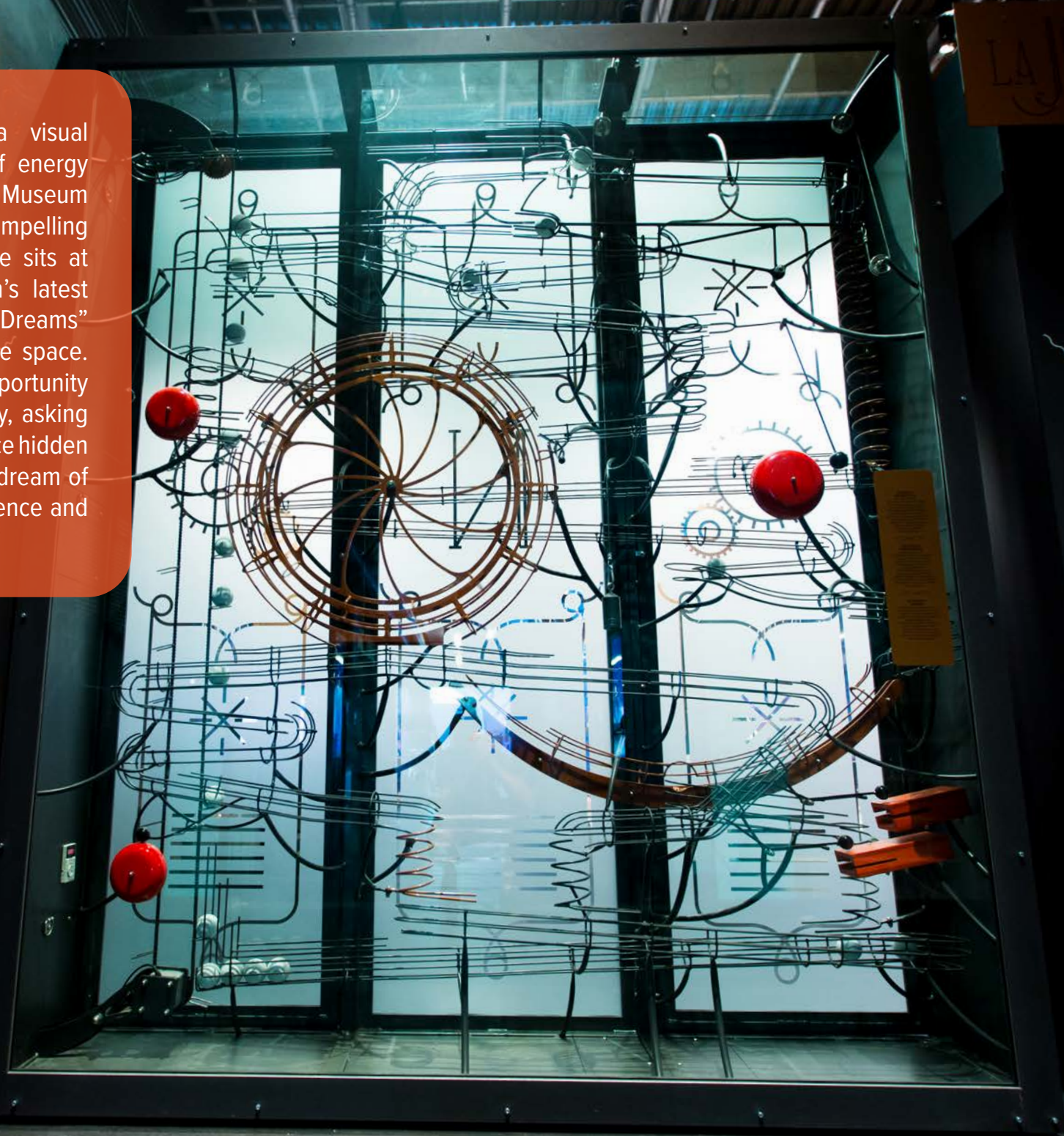
Approximate Size	190" length x 12" width x 72" height
Estimated Cost	\$48,500 USD
Curriculum/Learning Objectives	Motor function, assembly, group play, puzzle activity
Active Users	1-3 individuals at a time
Indoor/Outdoor	Indoor use only; portable
Facility Requirements	No electrical power required



*Rotating Cogs* is a basic wall puzzle using two fixed cogs with handles and twelve movable cogs. Visitors are invited to create different gear configurations by pulling the foam cogs off the wall and inserting them into new locations. However, not every cog will fit in each location so visitors have to test whether there is enough space or if the cogs are too far apart to work. When the cogs do fit together, visitors can turn the handles on the fixed cogs and rotate the entire group. This group might only include a few cogs or it might run across the entire wall. Visitors of all ages can try out lots of possibilities.



*Le Reve de Newton* is a visual exploration of the concept of energy located in the interactive Pass Museum in Frameries, Belgium. This compelling Rolling Ball Machine Sculpture sits at the entrance of the museum's latest exhibition, "Energy, the New Dreams" and welcomes visitors into the space. The exhibition creates the opportunity to explore the world of energy, asking people to investigate the science hidden within our everyday lives and dream of new ways to consume, experience and share energy.





# What people say

Creative Machines is among the top firms worldwide for the engineering and fabrication of complex interactive exhibits. They excel in the engineering and fabrication of exhibits, the integration of sophisticated technology with highly accessible experiences, and the pairing of multimedia with traditional interactives. I can highly recommend a relationship with Creative Machines.

**Rickard Larsson**  
Inspiria Science Center

What sets Creative Machines apart is their integrity and respect for the visitor. Their exhibits are innovative, but more than that, they are based on a solid understanding of how people experience the world. They leave room for children to explore and discover on their own.

— **Chuck Howorth**,  
President, Gyroscope Inc.

Creative Machines' technical support for troubleshooting and correcting user and system errors is unmatched in the industry. They have separated themselves from typical fabrication firms through their exceptional ability to solve complex design challenges by integrating sophisticated technology and mechanical systems that achieve highly accessible and engaging experiences.

— **Matt Stalberger**  
Director of Exhibits, Thinkery Austin

Their work is top notch in terms of user interface, high quality visitor interaction,

Reliability, and ease of maintenance. They are one of the best firms in the world when it comes to the engineering and fabrication of complex interactive and multimedia exhibits. We have several exhibits from Creative Machines at my museum, and they are among the most popular and durable pieces in the building. Likewise, I have purchased many Creative Machine exhibits for other clients, who are also highly satisfied with their decision.





— **Joe Hastings**,  
Executive Director, Explora



## Contact

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