# Interactive Ball Run & Pinball Exhibit Enhancements

**Left to right:** Emmanuel Amegee, Alicia Kelly, Harry Aung, Jack Olsen, Hiro McKee

the Works® museum
*Engineering Fun*

## TEAM 4

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## PROJECT BACKGROUND & DESIGN GOAL:

The Works Museum motivates users, specifically in grades K–5, to learn engineering through hands-on exhibits like the ball run and pinball. Our team has been dedicated to creating new, modular components to increase these exhibits' engagement, durability, and safety. **The goal of this project is to design and implement age-appropriate, modular components that will be integrated into the existing exhibits to increase engagement for users in grades K-5.**

## DESIGN OUTCOMES:

- Developed six independent, modular components
- Added fixed, interactive features to improve engagement, function, and overall exhibit experience.
- Produced designs that meet safety, durability, and age-appropriateness requirements.
- Delivered components that integrate into the existing system and support longer, more engaging use.

**Completed Ball Run**

## DESIGN CONSTRAINTS:

- **SAFETY** Must be safe for children grades K-5 to use.
- **DURABILITY** Must not fracture or degrade under use.
- **ENGAGEMENT** Must keep users interested longer than current exhibit.
- **FIT** Must operate concurrently with The Works Museum setup.
- **MAINTENANCE** Must be easily maintained by staff.
- **BATTERY LIFE** Electronics must last at least one week of use before recharging.
- **AGE RANGE** Must be simple yet engaging for users in grades K-5.