

# LEMELSON-MIT

*Celebrating invention, inspiring youth*

## Involving Your Community

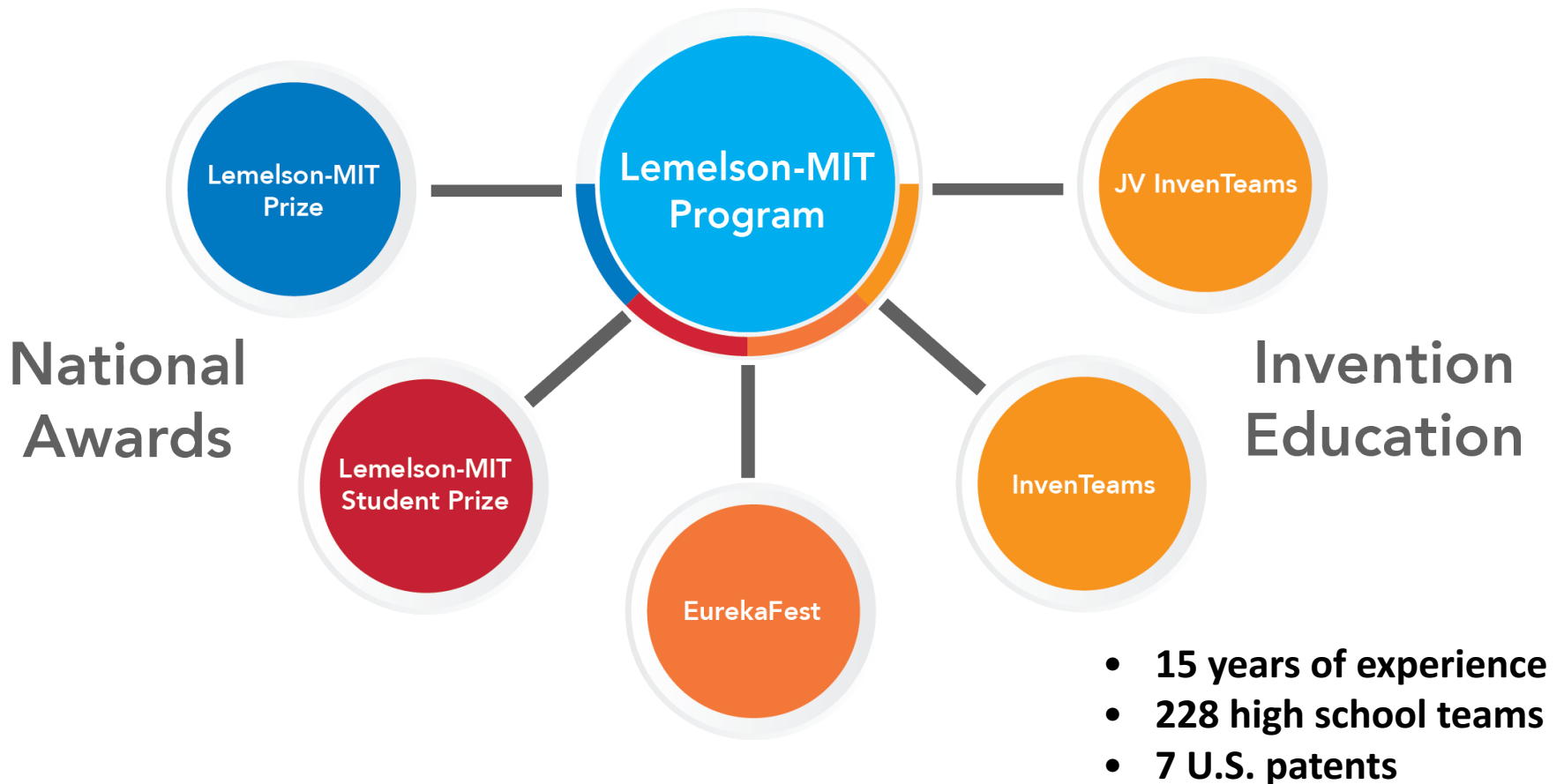
Invention Education  
Webinar Series



Thursday, March 8, 2018

6:30 – 7:00 p.m. ET

# Lemelson-MIT Program Overview



# Presenter Chelle Myrann

- Physics, Robotics, and Engineering Teacher at Cesar Chavez High School, Phoenix, AZ
- Over 20 years of teaching experience

## Invention Education Experience

- Lemelson-MIT InvenTeam (2010)
  - Physical therapy chair to reduce muscular atrophy
  - Presented at the inaugural White House Science Fair
  - Awarded U.S. patent 8,845,560 on Sep. 30, 2014



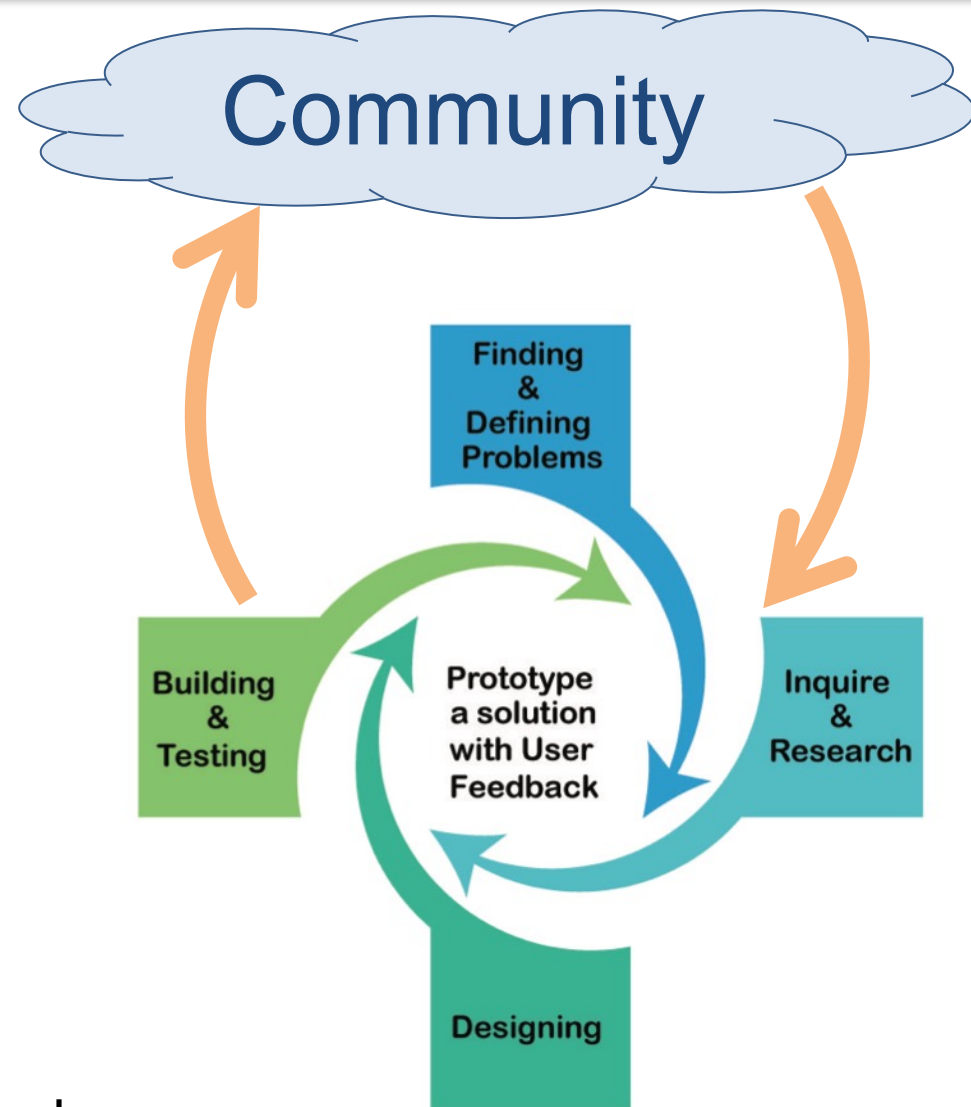
# Community and Invention Cycle

Technical inventions are

- Useful
- Unique
- Reduced to practice

## ***Involving Community:***

- Inform the community of your work
- Ensure high relevance to the community
- Accelerate invention
- Motivate students' passion and enthusiasm
- Convince people something good might happen if they contribute



# Finding and Finalizing Problems

- Start with the most active/relevant groups to find out the need
  - Physical Therapy Chair Invention project
    - ✓ teachers in the special education department
    - ✓ physical therapist
    - ✓ people who suffer or whose family members suffer
  - Other invention projects
    - ✓ co-workers
    - ✓ firefighters



*Garden beds project: working with a community member to design, fabricate, and install raised garden beds*

# Inquiry, Research, and Design

- Meet other inventors and entrepreneurs at NCIIA (National Colligate Inventors and Innovators Alliance) conference
  - ✓ College students
  - ✓ Professors and entrepreneurs





# Inquiry, Research, and Design

- Seek feedback on evaluating preliminary invention solutions
  - ✓ Physical therapist and special education teachers
  - ✓ Potential client or beneficiary
  - ✓ The feedback evokes iterative design process, and may require longer time than expected.



# Building and Testing

- Support from local industry partners: Ace Auto assisted with welding aluminum



*Students learned fabrication skills*

- Patent lawyers



*Diego discussed patent with lawyer Ben Erlick*



# Family and Friends Help Fundraise and Celebrate Success

- Help solve problems during invention:  
Making tamales to raise travel funds
- Celebrate the success with families



# Keep the Community Updated

- Community Invention Festival to celebrate with community members and support young inventors
- Continuous effort to involve the community, e.g., overcoming language and cultural barriers
- Mixed channels to keep the community informed
  - formal meetings
  - informal gatherings
  - social media
  - newsletters
  - community showcases
  - tax deducting donations

# Not all Community Engagement is Successful

- Community engagement may not be always successful
  - ✓ Chelle's InvenTeam experience with Group Homes for Abused Children
- Understand and explore different “communities”
  - ✓ constantly build your network (local business, firefighters, policemen, senior citizens, government, etc.)

**Be proactive in reaching out to the community!**

# Make it Easy and Fun for the Community

Haiti Container Building Project involves local communities, students, and parents through

- \$2 per day campaign
- School-wide clothing drive
- Fundraising dance party



# Lemelson-MIT Resources

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Lemelson-MIT Program

<http://lemelson.mit.edu/>

InvenTeams National Grants Initiative

<http://lemelson.mit.edu/inventeams>

JV InvenTeams Curriculum Materials

<http://lemelson.mit.edu/jv-inventeams>

Inventor Archive

<http://lemelson.mit.edu/search-inventors>

[Inventor's Handbook](#)

<http://lemelson.mit.edu/search-resources/45>



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**THANK YOU!**

Contact Us at  
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