Brick by Brick: Building Empowered Communities through Lego Robotics

Mary Neffinger Bixby Free Memorial Library

Primary Educational Funding Challenges Provide an Opportunity to Libraries

- ★ One third of district budgets failed on the first vote this year
- ★ Impact on access to STEM programs for youth

Introduction to LEGO First Robotics

What is Lego First Robotics?

https://www.firstlegoleague.org/about







Benefits of LEGO First Robotics in Libraries

- ★ Inclusivity and accessibility
- ★ Opportunity for youth engagement and empowerment
- **★** STEM education

Libraries are Ideal Hosts for Robotics

- ★ Libraries are community hubs
- ★ Inherent accessibility of libraries
- ★ Role of libraries in fostering lifelong learning



Strengthening Community Ties

- ★ Building relationships between libraries and communities
- ★ Collaborative efforts for youth development
- ★ Promoting STEM education as a community goal



Starting a LEGO Robotics Team in Your Library

- ★ Steps to initiate a LEGO First Robotics team
- ★ Identifying key stakeholders and partners



Community Outreach

- ★ Strategies for engaging with the community
- ★ Reach out to schools, youth groups, and local organizations



Volunteer Recruitment

- ★ Importance of volunteers in robotics programs
- Where to recruit mentors and coaches from the community



Funding Options

- ★ Exploring funding opportunities for robotics teams
- ★ Grants, sponsorships, and partnerships
- https://www.firstinvt.org/



Leveraging Library Resources

- ★ Utilizing library facilities and resources for robotics activities
- ★ Incorporating technology and maker spaces







Equipment and Materials

- ★ Essential equipment and materials for LEGO robotics teams
 - Robotics season map
 - Board or large flat area for map
 - Robotics kit
 - Laptops



Lego Robotics Challenge Team Season

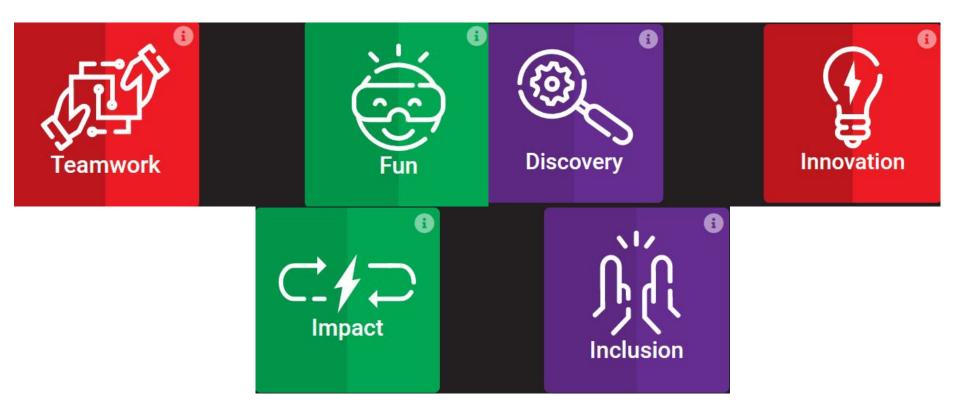
- ★ End of August through January/February
- ★ Once or twice a week meetings
- ★ Teams work on the robotics season challenge map and Innovation Project

Training and Support

- ★ Curriculum supports mentors
- https://www.firstinvt.or g/programs/programsguide/



Team Culture & Core Values



Competitions and Events

- ★ Challenge teams participate in a Qualifier Competition
- ★ Top teams move on to the State Competition at Norwich University
- ★ Winners qualify for the National Competition

Impact and Success Stories

★ 2022/2023 Bixby Robotics teams grew from 1 Explore Team and 1 Challenge Team serving 17 kids from 6 different towns

★ 2023/2024 Bixby Robotics grew to an additional Challenge

Team 21 kids from 7 different towns



Future Opportunities

- ★ Expanding LEGO robotics initiatives in libraries
- ★ Building sustainable programs for long-term impact



Lego Robotics and Libraries

A partnership worth pursuing:







Questions and Discussion

