

## **Shell-MSU College of Engineering FIRST LEGO League Call for Proposal**

### **Proposals are now being accepted for the 2008 First LEGO League (FLL) sponsorships.**

Proposals for starting a school based team must be made in writing to MSU College of Engineering Recruitment and K-12 Outreach Office. Grant seekers are required to submit a two-to-three page letter, signed by the principal, a teacher, and a parent of a child in the school.

Proposal Deadline: February 15, 2008

Notification of selected teams: February 29, 2008

Number of teams sponsored: Ten teams

This program is part of the MSU College of Engineering K-12 development program and is designed as a learning adventure in Math, Science and Team Working for children ages 9 to 14. Teams will be formed in late winter and will teach the children Mindstorms NXT robotic programming and an introduction to the fall FLL research project. In September, FLL will announce the robotic challenge mission for which the robots must be built and programmed to accomplish. Additionally, the research project will be announced. (Past research projects have included the Ocean, Mars, Nano-technology and Energy).

When submitting a proposal, the following items must be included:

1. Team goals
2. Marketing plan for starting a team
3. Student selection process, 10 max
4. Timeline for spring, summer and fall
5. Location & time of team meetings (4 to 6 hours/week in the fall)
6. Expected results
7. How does this fit with school curriculum and other school programs
8. Resources provided by school and those provided by parents
9. Principle, teachers and adult coaches signatures

If your school team is selected, Shell-MSU College of Engineering support for the team will include:

1. FLL Team registration fee
2. FLL Robot Challenge kit
3. Two NXT Mindstorms Robotic Kits
4. Team t-shirt
5. Regional Tournament fee
6. MSU Engineering student coach (Teams' are responsible for transportation to and from the meetings for the student coach)

Total value: Approximately \$2,000.

Educational Experience and long lasting effect: PRICELESS!!!!

This Grant is made possible by the Shell Trading Corporation. Shell Trading Corporation wants to help cultivate prospective engineers and geoscientists to ensure their industry has the skilled work force required for the future. Shell has partnered with MSU College of Engineering to create the Shell Students Interested in Technology, Engineering and Science (SITES) Program. The College of Engineering received a Grant from the Shell SITES Program to expand the presence of For Inspiration and Recognition of Science and Technology, or FIRST LEGO League at MSU. The league, also known as FLL, is the result of an alliance between FIRST— which is a multinational nonprofit organization — and the LEGO Company.

“This Shell grant is very timely,” said Drew Kim, Assistant to the Dean for recruitment and K-12 Outreach for the College of Engineering. “It’s a great way for us to reach out to the community and collaborate with area school students, teachers and parents in order to produce well prepared ‘future engineers.’”

For more details please visit, <http://www.firstlegoleague.org>. If you have questions regarding the proposal guidelines, please feel free to e-mail Jamie Ramos at [ramosja@egr.msu.edu](mailto:ramosja@egr.msu.edu) or Bob Watson, FLL Program Coordinator at [robertfwatson@yahoo.com](mailto:robertfwatson@yahoo.com) . I look forward to receiving a proposal from your school.

Best regards,

Drew Kim  
Assistant to the Dean for  
Recruitment and K-12 Outreach  
Michigan State University  
College of Engineering

## Addendum:

Teams need to meet 1 to 2 hours/week in the spring and 4 to 6 hours per week in the fall.

### Spring Activities

- School support vs. parental support determined
- Parent/student information meeting
- Team formation and initial team members selected
- Meeting dates, times & location defined (1 to 2 hours/week)
- MSU informational meetings
- Robot programming taught
- Team name selected
- Team Logo selected
- Introduction to Project topic
- Summer activities defined
- School year start up plan for fall
  - Date for start of team meetings
  - Meeting times determined (4 to 6 hours/week)

### Summer Activities

- Robot Classes
- General awareness of project

### Fall Activities

- Challenge missions announcement
- Research Project announcement
- Selection of additional team members
- MSU informational meetings
- Develop, build & program NXT robot for FLL Challenge missions
- Research, develop solutions, prepare presentation, and share with community the FLL Project
- Flint Practice tournament
- MSU Regional Tournament

### Adult Roles:

Initially adults should be the teachers.

By competition time, it is expected that the children are doing all of the work with adults in advisory roles

4 key roles:

- Program manager (planning and organization, overall program goals, timing)
- Teacher (Are the children learning?)
- Technical (programming, building, rules of the robot competition, Missions, Q & A)
- Research Project coordinator (Introduction to Project, dividing up the project, helping with how to research, presentation format, presentation)