

Honorable Mayor and Members
of the City Council
Torrance City Hall
Torrance, California

Members of the City Council:

SUBJECT: Community Services – Approve a Youth Council grant for the Torrance TorBots Robotics Team. Expenditure: \$5,000.

RECOMMENDATION

Recommendation of the Community Services Director and the Torrance Youth Council that City Council appropriate \$5,000 from the Youth Council Donation Account for a grant to the TorBots Robotics Team.

FUNDING

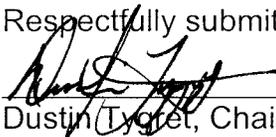
Funding is available in the Youth Council Donation Account.

BACKGROUND/ANALYSIS

Over the past 21 years, the Torrance Youth Council has sponsored arts and crafts boutiques to raise funds to promote youth activities within the City of Torrance. At their meeting on January 2, 2008, the Torrance Youth Council unanimously voted to provide a grant of \$5,000 to the TorBots Robotics Team (Attachment A).

The TorBots Robotics Team was established in 2002, and is open to all high school aged students in the City of Torrance. The TorBots Robotics Team consists of a student-run executive board, a faculty advisor from South High School, and several professional engineers who serve as mentors. The funds will help offset the cost of robotics projects for the year as specified in their grant application (Attachment B).

Respectfully submitted,

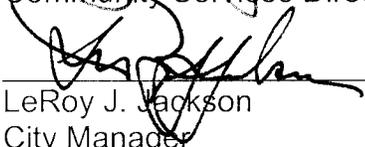


Dustin Tygret, Chairperson
Torrance Youth Council

NOTED:



John Jones
Community Services Director



LeRoy J. Jackson
City Manager

Attachments: A) Excerpts from minutes of the January 2, 2008 Youth Council meeting.
B) TorBots Robotics Team Grant Application

ATTACHMENT A**EXCERPT OF MINUTES**

- Minutes Approved
 Minutes Subject to Approval

January 2, 2008

**MINUTES OF A REGULAR MEETING
OF THE TORRANCE YOUTH COUNCIL**

2. ROLL CALL/MOTIONS FOR EXCUSED ABSENCE

PRESENT: Chelsea Brewer, Naghmeh Ghafourian, Shreyasi Ghosh, Zachary Gray, Christina Kang, Anna Lee, Brad Moylan, Michael Ohta, Dana Schroeder, Tanya Sepehrnia, Fatana Temory, Louis To, Dustin Tygret and Aileen Yoon

ABSENT: Michael Allegro

10) DONATION REQUEST FROM TORBOTS ROBOTICS TEAM

The representatives from the TorBots Robotics Team (Bruce loki, Chief Mentor, TorBots Robotics Team and members, Kirstin Kita, President of the North High School Robotics Team; Jerry Shu, President, TorBots Robotics Team; and Greg Jones, Vice President, TorBots Robotics Team Administrative Department,) gave a presentation explaining the premise of the team. This was followed by questions from the Torrance Youth Council. The Torrance Youth Council met in a closed session to discuss this matter.

Dustin Tygret moved, Dana Schroeder seconded, to confer the grant request of TorBots Robotics Team in the amount of \$5,000. The motion was carried with 13 votes for and no votes against with one abstention.

Torrance Youth Council Grant Application

Please complete the following application form and required attachments, and return them to the city of Torrance Community Services Department; 3031 Torrance Blvd. Torrance CA 90503, attn.: Deborah Reed by the deadline stated in the guidelines. Please print or type your responses in the space provided. If you have any questions please call Deborah at (310) 618-2949.

Organization: TorBots Robotics Team

Executive Director or Board Chair/President: Jerry Shu

Project Contact: Mr. Michael Ellena

Address: 4801 Pacific Coast Highway, Torrance, CA 90505

Telephone: (310) 533 4352 x7439 Fax: _____ E-Mail: mellena@earthlink.net

Total Project/Program Budget: \$ 20,000 _ Grant Request \$ 5,000

Duration of Proposed Project: 12 months, starting in 1/08 and ending in 12/08

Does this program serve only Torrance residents? yes no, if no please attach a detailed description of all the program participants and the cities they live in.

Please describe briefly your proposed project's purpose and goals, including an overview of your staff, participants, location, funding, and the project's activities. Please confine your response to the box below.

The TorBots Robotics Team is open to all high school students in the City of Torrance. Its participants are responsible for the fundraising, as well as the engineering and the construction of a robot that will compete in the FIRST Robotics Competition (FRC) each year. The team, established in 2002, has won several honors and awards. Its leadership is made up of an entirely student-run executive board along with a South High School faculty advisor and several mentors (professional engineers). Funding is almost entirely derived from corporate and non-profit sponsors and is administered as a South High School club by the South High ASB.

Jerry Shu
Signature of Executive Director or Board Chair/President

1. Briefly describe the history and expertise of your agency or program. *(When did you incorporate, or when were you founded? What does your agency do? What is the composition of your staff and board? Who have you traditionally serviced or targeted?)*

Team 1197 was originally founded in 2002, as "South High School Robotics" with only eight members when it entered the FIRST Robotics Competition. The interest in the team continued to grow and in 2006 many of the organizational aspects of the team flourished, creating an executive board consisting of a president and several vice presidents, each leading a particular "department." All of these are student-run and include engineering, fundraising, legal, and community outreach. As awareness and fundraising needs increased, in 2006 TorBots opened the group up to a larger membership, allowing all high school students from Torrance with an interest in robotics and project-management to be a part of the experience.

2. What members of the Torrance community does your program impact, both directly and indirectly? *(What are the age groups, from what area of Torrance, in what economic background? Please include this information for both participants and volunteers.)*

The participants of the TorBots Robotics Team are all high school students in the City of Torrance. The Team is open to all members of the Torrance community, not dependant on economic background. Most of the students tend to reside in either the South or North areas of the City, as South High School and North High School are currently the only high schools in Torrance that have chosen to have a formal club at the school, making it more accessible to them. TorBots is also enriched by several businesses in Torrance, including Toyota Motor Sales, ExxonMobil, and MOOG Aircraft Group, as they are committed to support the team. El Camino College has also pledged to help TorBots by making available their machine shop facilities.

3. What are the specific needs or problems in the community that you are trying to solve through your proposed project? *(How do the youth you are serving attribute to the need or problem you are looking to solve? Identify the methods you will use to assess your success. What will your target population have gained through your project?)*

For high school aged students, there is no way to experience real world engineering first hand. TorBots seeks to remedy this problem. There is a large population of students that leave high school with the intent of entering the engineering field without truly knowing what that entails. By being involved with TorBots, students are not only exposed to hands-on engineering, but also exposed to professional engineers whose sole involvement is to mentor and teach a strong group of aspiring engineers themselves. This is also the only FIRST Robotics team that serves residents of the City of Torrance. In addition, some of the corporate sponsors find great benefit in investing in their future workforce in the areas of math, science, engineering, and technology.

4. Describe what steps must be taken, outside of applying for this grant to execute this project. *(Hiring of staff, getting volunteers, securing a location, purchasing materials, etc. Will you work with other organizations? Who are they and what is their role? Please include a timeline if it better illustrates your plan.)*

The TorBots program requires that several steps must be taken, although the infrastructure is already in place. The build season starts in January, but a lot has to be done before this date.

Among the necessary components are acquisition of funding and finding a suitable location in which to work. Mentors and other volunteers will have to be recruited, although almost all past mentors will continue to assist the program. Purchase of new and replacement equipment and build materials, such as tools and consumables (metal, hardware, etc.), is needed as well. Once the season begins, The team will start to work immediately, working every day for 45 days, some members dedicating as many as 40 hours per week.

5. How do you plan to evaluate the progress and success of your project? *(This might include reaching a designated number of people, written feedback from program participants, pre- and post-tests, or other evaluation instruments.)*

Assessment of TorBots' success is inherently built into the program. As a competition based program, TorBots' success depends on success in the FIRST Robotics Competition. TorBots has placed both second and third, in different years, in the Los Angeles Regional Competition. Aside from success in the competition itself, the team strives to maintain a high membership. Maybe even more important, however, is the retention rate of its members. Most, if not all, TorBots participants remain on the team throughout their high school career. In fact, many members will say that it was the best activity they were involved with in high school.

6. If your project costs more than you are requesting in this grant, how do you plan to pay for the remainder? *(What steps have you already taken to get additional funds or in-kind support, and how successful have you been?)*

TorBots has mobilized its efforts in regards to fundraising by appealing to corporate, non-profit, and individual sponsors. Corporations, such as Toyota Motor Sales, ExxonMobil, Northrop Grumman, and Raytheon, have seen the value of TorBots as a key component in enriching areas of math and science. El Camino College and MOOG Aircraft Group have also contributed engineers and facilities. Realistically, however, to run a successful FIRST Robotics program requires a bare minimum of \$15,000, but in actuality around \$20,000. Currently fundraising efforts have brought in less than \$11,000. With more adequate funding, TorBots, and by association the City of Torrance, can have an award-winning robotics team.

7. If you plan to continue this project beyond the period for which you have requested funds, how do you plan to continue paying for it?

The TorBots program is solely funded by donations and sponsorship, and will continue its fundraising efforts on an ongoing basis.

8. If you feel there are important aspects of your project that we have failed to ask you about, please include them here.

As much as TorBots promotes the principals of FIRST in aspects of creativity, design and engineering, it lives by the organization's motto of "Gracious Professionalism." During competitions, teams associate with two other teams to compete against three. The make-up of these alliances changes rapidly. With this, FIRST empowers students to work in teams and become collaborators with potentially competing teams by sharing ideas, materials and a winning spirit. FIRST instills in all participants a desire to help and that a team spirit has the power to benefit all.

Proposed Project Budget

Item	Requested Amount	In-Kind	\$ from other Funders	Total Budget
Personnel	All staff are unpaid volunteers			0
Program Expenses				
Office Supplies			200	200
Printing/Duplicating			100	100
Materials Purchase				
Robot Supplies	2,500		3,500	6000
Tools (Perennial)	1,000		200	1200
FIRST Kit			2,000	2000
Information Technology	1,500		1,000	2500
FIRST Registration (2 Regional Competitions)			8,000	8000
				0
TOTAL EXPENSE	5,000	Volunteer Time	15,000	20,000