

EXTRA-CURRICULAR
STUDENT TRAVEL APPROVAL FORM

Student travel must be approved based on the direct benefits for the students. The trip must have approval of Superintendent or designee before any travel arrangements and reservations are made or students and parents become involved with any facet of the trip. Out-of-state travel must have Board approval.

Name of Group: MY FUTURE MY ROBOT - DHS ROBOTICS TEAM #2
NATL QUALIFIED TEAM - Intel International Science + Eng. Fair Campus: Odessa High School
Date of trip: 5-9 to 5-14, 2010 Grade levels involved: 12 Number of students: 4
Number of instructional days: 5 Location: San Jose, California Intel ISEF 2010
(Please attach an itinerary)

Funding source: District Budget Campus Budget Department Budget Activity fund Personal

Instructional days out of the classroom: The sponsors/coaches/directors have checked the accrued number of days for each participant? Yes No

Trip function: Cocurricular Extracurricular Competition (Non-athletic)

Trip profile: In-state Out-of-state Overseas Tour Field trip Invitational
 Annual Biennial Post-district Competition associated with a tour or attraction

Transportation mode: School bus School suburban Charter bus plane

How does the trip relate to and benefit the Campus Improvement Plan, District Improvement Plan and/or the TEKS?
Students competed in the Permian Basin Regional Science Fair and qualified to Natl. Science and Engineering fair to compete for college scholarships and expand Robotics curriculum.

Does the trip require fund-raisers? Yes No
Are deadlines established to guide the sponsors/directors if the trip has to be canceled due to lack of funding?
 Yes No

How many sponsors will accompany the students? 2
What is the ratio of sponsors to students? Sponsors 2 / Students 4 (gender appropriate)

Student orientation - Date: 3/26/2010 Time: 4:00 pm Location: DHS Room 230
Parent orientation - Date: 3/30/2010 Time: 4:00 pm Location: DHS Room 230
Sponsor orientation - Date: _____ Time: _____ Location: _____
Sponsor criminal background check - Date: _____

Will any kind of insurance be required? Yes No
Will room and baggage searches be required? Yes No

Medical and travel releases will be required.

Coach/Sponsor: Cheri Whalen (Signature) 3/8/2010 (Date)

Principal approval: Ron Leach (Signature) 3-9-10 (Date)
Field Trips/Excursions
UIL Competition

(District Sanctioned Competition)
(K-8 Field Trips/Excursions)

Superintendent or designee
Approval: _____ (Signature) _____ (Date)

Board approval: _____ (Signature) _____ (Date)
(Out-of-state)

03-10-10P02:28 RCVD



PRELIMINARY PROGRAM

**Intel ISEF 2010
San Jose, California**

Note: This Preliminary Program is to assist all fair participants in planning their travel and events (such as tours) throughout the fair week. As of Saturday, May 8, 2010, this program will be **INVALID** at which point a formal program, with all revisions, will be distributed with each fair registration packet.

Saturday, May 8, 2010

3:00 p.m. – 6:00 p.m. Early Registration Opens—San Jose McEnery Convention Center (SJCC)

Sunday, May 9, 2010

8:00 a.m. – 8:00 p.m. Registration Open - SJCC
8:00 a.m. – 8:00 p.m. Exhibit Hall Opens - Project Set-up & Display and Safety Inspections - SJCC
7:00 p.m. – 9:00 p.m. Student Pin Exchange Presented by Intel Foundation—Fairmont Hotel
Food and drinks will be served. Dress is casual
7:00 p.m. – 9:00 p.m. Adult Pin Exchange—Marriott Hotel Ballroom
Food and drinks will be served. Dress is casual

Monday, May 10, 2010

8:00 a.m. – 9:00 p.m. Registration Open – SJCC
8:00 a.m. – 6:00 p.m. Project Set-up/Display & Safety Inspections – SJCC
All Day Symposia Sessions – SJCC
1:00 – 2:30 p.m. Women in Science & Technology Panel
Presented by the Anita Borg Institute– Center for the Performing Arts (CPA)
3:30 p.m. - 6:30 p.m. Intel ISEF Opening Ceremony Dinner – San Jose State University (SJSU)
6:00 p.m. Exhibit Hall Closes (Project Set-up MUST be complete) – SJCC
6:15 p.m. Doors open Intel ISEF Opening Ceremony – San Jose State University Events Center (SJSUEC)
7:00 p.m. Intel ISEF Opening Ceremony - SJSUEC
9:30 p.m. Final Project Violations List Posted

Tuesday, May 11, 2010

8:00 a.m. – 9:00 p.m. Registration Open – SJCC
8:00 a.m. – 9:30 a.m. Final Project Violations Clearance – SJCC
All Day Symposia Sessions – SJCC
2:00 p.m. – 4:00 p.m. Excellence in Science and Technology Panel Presented by Intel Foundation– CPA
7:00 p.m. – 10:00 p.m. San Jose Welcome Event—Tech Museum of Innovation and Parkside Hall
Buffet Dinner—Casual Dress

Wednesday, May 12, 2010

6:00 a.m. – 7:00 a.m. Final Project Check by Finalists prior to Judging – SJCC
All Day Symposia Sessions – SJCC
7:00 a.m. – 8:30 a.m. Free Time (Finalists not allowed in Exhibit Hall)
7:00 a.m. – 9:00 p.m. Registration Open – SJCC
8:30 a.m. – 9:30 a.m. Finalists at their projects - *Special Awards* Judges Interview Period – SJCC
9:30 a.m. – 11:45 a.m. Judging Session I – Interview Periods 1 – 9
11:45 a.m. – 1:00 p.m. Finalists Lunch Break – SJCC—Outside food is not allowed into the convention center.
1:15 p.m. – 3:15 p.m. Judging Session II – Interview Periods 10 – 17
3:15 p.m. – 3:45 p.m. *Special Awards* Judges Interview Period
4:00 p.m. – 6:00 p.m. Judging Session III -- Unscheduled interviews
7:00 p.m.—10:00 p.m. Student Mixer—Civic Auditorium
Buffet Dinner—Casual Attire
7:00 p.m.—10:00 p.m. Adult Mixer—Parkside Hall
Food and drinks served—Casual Attire

Thursday, May 13, 2010

All Day Symposia Sessions – SJCC
9:00 a.m. – 9:00 p.m. Public Visitation – SJCC
10:00 a.m. – 2:00 p.m. ALL FINALISTS MUST BE AT PROJECTS – SJCC
7:00 p.m. – 9:30 p.m. Special Awards Ceremony– SJSEC

Friday, May 14, 2010

10:00 a.m. – 1:00 p.m.* Intel ISEF Grand Awards Ceremony – SJSEC
1:00 p.m.* – 6:00 p.m. Project Teardown – SJCC
ALL projects MUST be removed by 6 PM!

*The Exhibit Hall will be open immediately following the conclusion of the Intel ISEF Grand Awards Ceremony.

- New Application
- Proposal for Trainer of Trainers
- Proposal for Repeat Funding

**EDUCATION FOUNDATION
Innovative Program Grant Application**

Name of Project MY FUTURE MY ROBOT (Formerly Known as BUILDING ROBOTS IN THE CLOSET)

Application Number _____ **(For Office Use Only)**

DESCRIPTION:

Imagine your future... with the possibility of not having to risk people's lives to fight fires. The future in store for today's students is full of beings with artificial intelligence and we will be there. The teenagers of today will not only be there, they will be the generation to design and utilize this technology. Not only is it the responsibility of educators of young computer scientists to teach them the basics of programming, but inspire them to become an integral part of the future of artificial intelligence. This project will take on the task of creating and designing two robots to contribute to the scientific community and help solve the problem of fighting fire without risking the lives of our citizens. The robots will be designed and built by a group of second and third year computer science students and taken to a national competition at Trinity College in Hartford, Connecticut, to compete against other young computer scientists. The robots will run through a scaled down house and extinguish a simulated fire autonomously. The fire fighting robots will use a programming block and run an operating system which allows the team to program in the Java, ROBOTC and NXT programming languages. While the teams prepare for competition by building and programming the robots, the students in the computer science classes will be introduced to robotics using the Lego Mindstorms Education Robotics kits. Students in computer science classes and physics classes will have the opportunity to be involved in testing and development as the robot progresses. The robotic team will travel to other schools for exhibitions, as well as build a robot that can solve a Rubik's cube to enter in the annual Permian Basin Regional Science Fair, which has, for the most part, been devoid of high school entries from our area for the past number of years. The kits used to build the robots for competition will be reusable for Computer Science I classes as a tool to practice programming and interest them in the field of robotics. These basic kits will be used on an ongoing basis in the computer science courses offered each year at this high school. This project will expose our district's students to the remarkable world of technology and will create an interest in the computer science program, which in turn will increase enrollment in technology education in our district.

According to former Secretary of Education Richard Riley, the top ten in-demand jobs in 2010 didn't exist in 2004. We are currently preparing students for jobs that don't yet exist using technologies that have not been invented, in order to solve problems we don't even know are problems yet. The amount of new technical information is doubling every two years. That means for a student starting a four year technical or college degree half of what they learn in their first year of study will be outdated by their third year. Our youth must be inspired to learn about technology because their future depends on it. The "My Future My Robot" robotics team will share excitement and knowledge on and off campus by conducting practice exhibitions. In ECISD, enrollment in technology courses is unfortunately decreasing each year, and the state of Texas passed House Bill 3, in July, 2009, removed the technology requirement for graduation from a Texas high school. Given these facts this project gives critical exposure to students into the world of computer science using a real world scenario, giving them foresight into the amazing opportunities that await them in the world of technology. Additionally, the VEX robot kits and the RobotC programming language are the robotic kits used in VEX competitions for university students across the country, including University of Texas at Dallas, one of the premier Computer Science Programs in the country. Involvement in this project exposes these students to college level programming during their high school years guaranteeing their competitive edge in any technology or engineering based university program.

the students will:

- Select the technology appropriate for the task, synthesize knowledge, create a solution and evaluate results.
- Make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency.
- Determine and employ methods to evaluate the design and functionality of the process using effective coding, design, and test data.
- Develop sequential and iterative algorithms and codes programs in prevailing computer languages to solve practical problems modeled from school and community.
- Participate with electronic communities as a learner, initiator, contributor, and teacher/mentor.
- Participate in relevant, meaningful activities in the larger community and society to create electronic projects.
- Seek and respond to advice from peers and professionals in delineating technological tasks.
- Seek and respond to advice from peers and professionals in evaluating the product.
- Debug and solve problems using reference material and effective strategies.
- Demonstrate coding proficiency in Java object oriented programming language.
- Research advanced computer science concepts such as applied artificial intelligence, expert systems, robotics, depth-first/breadth-first and heuristic search strategies, multitasking operating systems, or computer architecture.
- Extend the learning environment beyond the school walls with digital products created to increase teaching and learning in the foundation and enrichment curricula

1. This project will take on the task of creating and designing two robots to contribute to the scientific community and help solve the problem of fighting fire without risking the lives of our citizens.
2. The robots that will be designed and built by a group of second and third year computer science students and taken to a national competition to compete against other young computer scientists.
3. The robots will run through a scaled down house and extinguish a simulated fire autonomously. The fire fighting robots will be entered into two areas of the competition. The first will use a Mindstorms kit and run an operating system which allows the team to

program in the Java programming language and NXT. The second robot will be entered as a unique robot using a VEX kit and programmed in the RobotC language.

4. Students in computer science classes and physics classes will build Lego Mindstorm Robots and compete in classroom robotics co. tests.
5. All students in computer science will contribute to building a robot that will solve a Rubik's cube and be entered in the 2010 Permian Basin Regional Science Fair, the team attending the fair will be decided through classroom competition.
6. Calendar benchmarks will be administered teaching the team valuable time management skills.
7. The team members work independently on the project design including the plan, budget, and purchase of hardware.
8. Team members will share their knowledge with schools and businesses in the community, through exhibitions.
9. Team members will compete at a national level to gauge their engineering and programming expertise.
10. Team will compete locally at the 2010 Permian Basin Science Fair.
11. Existing Computer Science I students will use the basic kits to enhance their learning through the use of programming labs aligned with the Java curriculum.

Identify one external community partner involved in the project and their respective roles.

UTPB CompSci Department, Dr. Ilhyun Lee, Cheri Whalen, M.S. consultation on design and programming.

PROJECT EVALUATION:

1. Students will design, build and program a robot and successfully compete at a national competition.
2. Students in surrounding classes, subject areas and different levels will participate in practice exhibitions, and build robots using Legos Mindstorms Robotic Kits.
3. Students will learn teamwork and project time management.
4. Students will be visible to the community through public announcements in the media.
5. Students will share their knowledge and experience with schools and businesses.
6. Students will gain a working knowledge of career options in the area of computer science.