

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 OHS Robotics Campus: Ddessa High School

Date of trip: 4/9/2010 - 4/12/2010 Grade levels involved: 11th + 12th Number of students: 4
Number of instructional days: 2 Location: Trinity College, Hartford, Connecticut
(Please attach an itinerary)

Funding source: District Budget Campus Budget Department Budget Activity fund Personal Ed. Foundation Grant

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?
This international robotics competition has given students a platform to show Java programming expertise and exposure to university level curriculum. Expands curriculum beyond TEKS (artificial intelligence and technology)

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 1 / Students 2 (gender appropriate)

Student orientation - Date: 3/26/2010 Time: 4:00 pm Location: OHS Room 230
Parent orientation - Date: 3/30/2010 Time: 4:00 pm Location: OHS 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

Superintendent or designee Approval: _____ (Signature) _____ (Date)
(District Sanctioned Competition)
(K-8 Field Trips/Excursions)

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

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TRINITY COLLEGE FIRE FIGHTING HOME ROBOT CONTEST		
IMPORTANT UPDATES	RULES	SCHEDULE
PRIZES	NEWS	SPONSORS
PHOTOS	ABOUT THE AREA	FAQ


CONTEST SCHEDULE
REGIONAL CONTESTS

GLOBAL LINKS
ONLINE REGISTRATION

CONTACT US

SITE MAP

SPONSOR LINK



LEARN MORE ABOUT OUR SPONSOR HOTEL

2010 CONTEST SCHEDULE


PLEASE NOTE: The following schedule is tentative and may change based on the number of registered and functional robots. Please use this as a guide only. Participants are encouraged to bring lunches or be prepared to purchase food at the on-campus dining hall each day. Several restaurants will deliver on campus, menus will be provided at the Information Booth upon your groups arrival.

Saturday, April 10, 2010
Admission: no charge

Time/Location	Event/Details
8:00 AM Oosting Gym	RoboWaiter Teams Check-In and Practice Begin
8:45 AM Oosting Gym	Firefighting Teams Check-In and Practice Begin
10:00 AM to 11:30 AM McCook Auditorium	Robotics Workshops. Dan Lin, National Instruments and Ed Nisley, Circuit Cellar.
12:00 PM Oosting Gym	Mazes Closed. Pizza served for all.
12:15 PM to 1:45 PM Oosting Gym	Robotics Keynote Speakers. Keynote 1: Shelley Gretlein, National Instruments Inc. Keynote 2: Prof. Neville Hogan, MIT. Sponsored by the CT Council on Developmental Disabilities. Click Here for information.
2:15 PM Oosting Gym	Opening Ceremony for RoboWaiter.
2:30 PM to 4:30 PM Oosting Gym	RoboWaiter Competition.
2:45 PM to 5:00 PM Oosting Gym	Firefighting Practice Arenas Open.
5:00 PM Oosting Gym	RoboWaiter Awards Ceremony.
5:30 PM to 6:30 PM Oosting Gym	Robotics Olympiad.
6:30 PM to 8:30 PM Oosting Gym	Firefighting Practice Arenas Open. Doors close at 8:45 sharp.

Sunday, April 11, 2010
Sponsored by: Versa Valves
Admission: students (no charge), adults (\$5.00)

Time/Location	Event/Details
8:30 AM Oosting Gym	Robot Practice Session: Doors and mazes open for practice. This is the final practice session.
11:00 AM Oosting Gym	TCFFHRC Opening Ceremony
11:30 AM Oosting Gym	Robot Competition: Start of Junior, High School, Senior, and Walking divisions.
12:00 PM Noon to 2:00 PM Outside Oosting Gym	Robot Competition: Start of Expert Division House on Fire and Concept Division



Trinity College
MAKING CONNECTIONS

4:00 PM (Estimated)
Oosting Gym

Award Ceremony: Moderator: David Ahlgren, Trinity
College, TCFHRC Director

IMPORTANT UPDATES : RULES : SCHEDULE : PRIZES : NEWS : SPONSORS : PHOTOS : ABOUT THE AREA : FAQ
REGISTRATION : CONTACT US : SITE MAP

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- 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.

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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.

This project is a _____ experience. 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 any school/community partners involved in the project and their respective roles.

UTPB CompSci Department, Dr. Ilhym 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.
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