




The Yaeger Foundation, Inc. presents the

BIONIC / ROBOTIC HAND KIT™

2010 COMPETITION

Saturday, April 17, 2010 at Miami Dade College North Campus
An exposition event at the Miami Dade District SECME Olympiad

Imagine the excitement of:

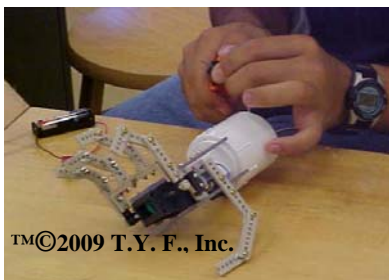
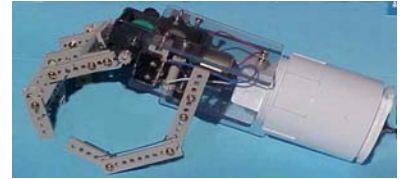
-  Forming a bioengineering team with your classmates --
-  Creating a functioning bionic hand prototype --
-  Competing against other student teams for prizes!

THE CHALLENGE - Your team will act as founders of a new biomedical company that is pursuing a large U. S. Government prosthetics contract. To win the contract your company must redesign the Mark I, an existing electric bionic hand. You will be provided with the parts, tools & instructions to build the Mark I. Your team must find ways of improving the function and appearance of this Hand without exceeding a fixed budget. The team must complete a functioning prototype and presentation.

THE COMPETITION - Your team will compete against other teams by demonstrating re-engineered hands to a panel of judges for final evaluation. Prizes will be awarded in categories such as Product Demonstration and Innovative Engineering.

ELIGIBILITY - Teams of 2 to 4 students can enter in the Middle School Division (6-9) or Senior High Division (grades 9-12)

HOW TO ENTER - To receive the Competitor's Packet and Mark I Bionic/Robotic Hand Kit, complete the Entry Form and return with registration fee (\$150/team via credit card or check only). **For forms and additional information please contact The Yaeger Foundation, Inc.** at: (305) 751-4208; fax (305) 759-9813; IG500@aol.com; 1177 M.L. King Boulevard, Miami, FL 33150.



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2010 Bionic/Robotic Hand Kit Competition™

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The Competition provides a hands-on career exploration experience by allowing students to form simulated biotech companies that develop and present a prosthetic hand prototype. Students are not required to possess a high level of technical expertise because all teams begin with a basic set of components and instructions. Each team then creates a customized design that is only limited by the students' ingenuity. Each team must also create a presentation that must not exceed **three minutes** that introduces their prosthetic hand product. This activity allows students to simulate the presentations delivered to venture capitalists by biotechnology entrepreneurs. Each school should select 1 to 2 teams that will compete at the Bionic/Robotic Hand Kit Competition. Judges representing industry and education sectors will select winning teams in the award categories listed below. The Bionic/Robotic Hand Kit Competition was created by Ivan Yaeger, Chief Executive Officer of The Yaeger Companies and inventor of the patented Yaeger Arm prosthesis.

DESIGN PARAMETERS

Each team begins by building the Bionic/Robotic Hand Kit, which is included in the \$135.00 registration fee. Using this as a common start point, each team will reengineer the Hand to produce its own custom-designed prototype. Teams must produce a prototype designed to be primarily a wearable prosthesis that can be used by a hand amputee. It must therefore be (1) lightweight; (2) powered by a portable, self-contained power source; (4) provide the ability to grip, manipulate and hold objects; and (5) be easily and safely operated by a physically challenged user. However, the hand can also have other industrial uses in robotics and other applications. Teams can incorporate virtually any material, mechanical system, power system and control system. Points will be awarded on technical innovation and creating use of improvised materials. Creativity and recycling of salvaged materials will generate greater points. Each team must spend no more than \$200.00 on additional materials and components. Teams must document expenses by submitting a detailed budget and copies of receipts.

AWARD CATEGORIES

Innovative Engineering -- This category recognizes the most creative application of engineering and design. Teams that modify and/or add features and functions to the basic hand kit will be eligible for this award.

Effective Presentation -- Teams that create and deliver the most professional-style presentation will be eligible for this award. This includes use of visual aids, creative product demonstrations/simulations and video taped/live commercials.

Most Realistic Prosthesis – This award recognizes the team that applied special attention to cosmetics and motion to produce the most aesthetically refined prosthetic hand prototype.

Product Demonstration – The functionality of each design is assessed through a series of timed and untimed tests. The student using the prosthesis must be able to hold it with their hand and grasp, manipulate and release a variety of objects.

Bionic/Robotic Hand Kit Competition™

ENTRY FORM

School: _____

Address: _____

Phone: _____ Fax: _____

E-Mail: _____

Teacher/Sponsor: _____

Number of Teams _____

Team Members (if students are not yet selected write TBA):

Team 1	Team 2

Item	Price Per Team	Quantity	Total
HK-2 Bionic/Robotic Hand Kit w/Tool Set	\$ 150.00		\$
TOTAL			\$

Call or email to register using a credit card or
mail this form with check for \$150.00 per team to:

The Yaeger Foundation, Inc.

Attn: 2010 Competition

1177 M.L. King Boulevard

Miami, FL 33150

A Bionic/Robotic Hand Kit with Tool Set will be sent to your school for each registered team. You may contact us at (305) 751-4208, fax (305) 759-9813 or IG500@aol.com for additional information.