C.R.A.T.E ROBOTICS, HOVERCRAFT PROJECT, AND PSD PROJECT

RAVEN HOOPER
TEMPLE UNIVERSITY
OUTLINE

• Competitive Robotics @ Temple Engineering (C.R.A.T.E)
• Engineering 101 Hovercraft Project
• Philadelphia School for the Deaf (PSD) Project
• Plans for this year ^_^
C.R.A.T.E GETTING STARTED

• Club is renewed
• Competition
• Robotic parts
• Design plan
• Teamwork
• How we got through it all
COMPETITION

• What, when, why and how we decided on our competition

RoboSoccer Cup

Micromouse
ROBOTIC PARTS

• For VEX all parts have to be from VEX
GOT THROUGH IT
ENGINEERING 101 HOVERCRAFT PROJECT

• Introduction to engineering class approximately 240 students per semester
• Completely revamped via an Augmentation Grant from Pennsylvania Space Grant Consortium
• Use Arduino and Arduino code to program hovercraft
• Build hovercraft in SolidWorks
• Build hovercraft and solder
• Compete in competition for prize funded by NASA PA Space Grant
INTRODUCTION TO ENGINEERING CLASS
DESIGN OF HOVERCRAFT

• Foam skirt, Bag skirt and leave the rest to the imagination
PROGRAMMING AND SOLDERING HOVERCRAFT

- Arduino code
- Use Ipad
- PCB Board
STUDENTS IN THE LAB
HOVERCRAFT COMPETITION

• Compete in competition for prize funded by NASA PA Space Grant
• http://youtu.be/xio-MY3p77c
PSD PROJECT

- Participation
- Bo-Bot kits
- Programming language
- Language Barrier
PSD PARTICIPATION

• C.R.A.T.E and Lunabotics team worked together
WHAT THE TEENS DID

• Bo-Bot kits used with Arduino Board
PROGRAMMING LANGUAGE

- Great for beginners
- Built in Tutorials
- Easy to download IDE
LANGUAGE BARRIER

• Translators
• Some of the kids had hearing aids
• We showed them videos of what people did across the world with robotics
PLAN FOR THIS YEAR

• This year competitions
• PSD again
• Community Service
The End

Questions???