

Don Domes, Technology Ed Teacher Hillsboro High School

- Grades 9-12
- 36% Non-Caucasian

Pre-Engineering Courses

- Robotics
- Electronics
- Drafting CAD/CAM/CNC/RP
- Architecture

Hillsboro High Electronics/Robotics Grant

22K in 2006-07 Leveraged:

8K Targeted Populations

52K School District investment in 2007-08

Beneficiaries: 100's of students



InvenTeam Experience



InvenTeam Experience



Nolan with Nate Ball, co-inventor of the Powered Rope Ascender and co-host of PBS's Design Squad



Nolan with James McClurkin, globally known for "swarm robot" technologies and, along with Nate, a Lemelson-MIT Student Prize Winner

InvenTeam 2006-07

10K direct plus indirect Leveraged:

2K Matching in 2007-08

Beneficiaries: 15 students and volunteers



Head up Display for automobiles
Oregon Inventors Showcase at PSU – April 2007

Summer Design Institute – NY 2007

Design for the other 90% theme

I now have students following the inspiration of Dr. Paul Polak and creating other 90% solutions for:

Habitat



Senior Dan Mandujano is leading the team

Water pumping



Grant of \$9K for development of models and documenting the stories of students experiencing the design process.

Fabrication/Manufacturing on a Desktop

MIT Fab Lab Model

Empowers Invention, Design, Prototyping

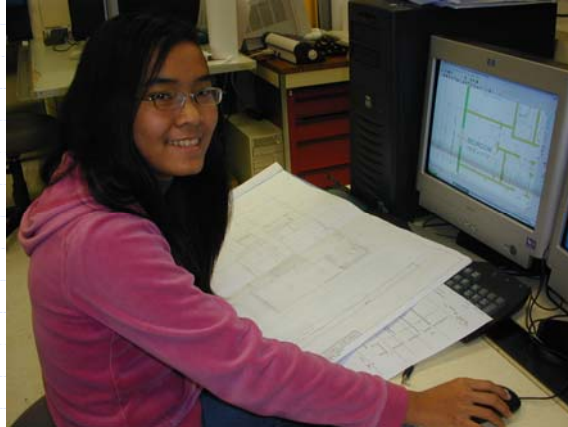
Laser Cutter Grant

\$9,450 was matched by \$10K of Perkins Funds



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How do we 'create' an Inventor?
How do we find, inspire, nurture, empower....



Sports has an envious system of creating athletes. I want to see students who invent socially responsible solutions feel just as important and valued.





Robotics Students with their robots at the FLL competition tables

Opportunities for students:

TAG You're It



Exciting Projects

- Designing Kitchens/parts of a home
- Designing Robots
- Designing Electric/Hybrid Bicycles



Inventing a useful Geometry Tool



Volunteers

Care and Feeding:

- They have to perform mission critical things
- Get them connected with students
- Develop them, Invest in them, Always Debrief
- Let them run with an idea for improvement
- Let them lead a small group or team
- Find their passion and support them

Your Time:

$70 \text{ minutes} / 35 \text{ students} =$
 $2 \text{ minutes/student}$

(effectively less than 60 sec.)
Per student

INVOLVE OTHERS

Relationships are key to Gen Y and Z:

- Teacher
- Parent
- Students
- Volunteers
- ELL aides
- Counselors
- Role Models

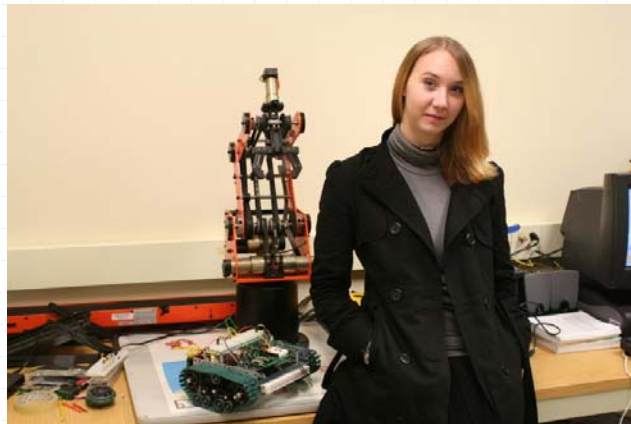
Work Hard

Have Fun

Eat Food

Recognize Accomplishment

Bring Adults to students



Lillian, Roboticist & InvenTeam Project Manager