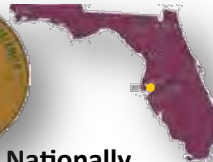


sTEem-at-play



LEGO® Mindstorms® Summer Robotics Camps



Impact Florida. Lead Nationally.

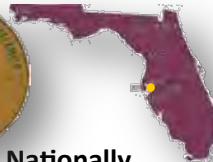
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VISION

FLATE will be Florida's leading resource for education and training expertise, leadership, projects, and services to promote and support the workforce in the high performance production and manufacturing community.

Impact locally, lead nationally

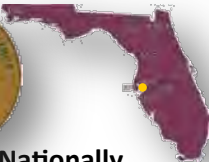
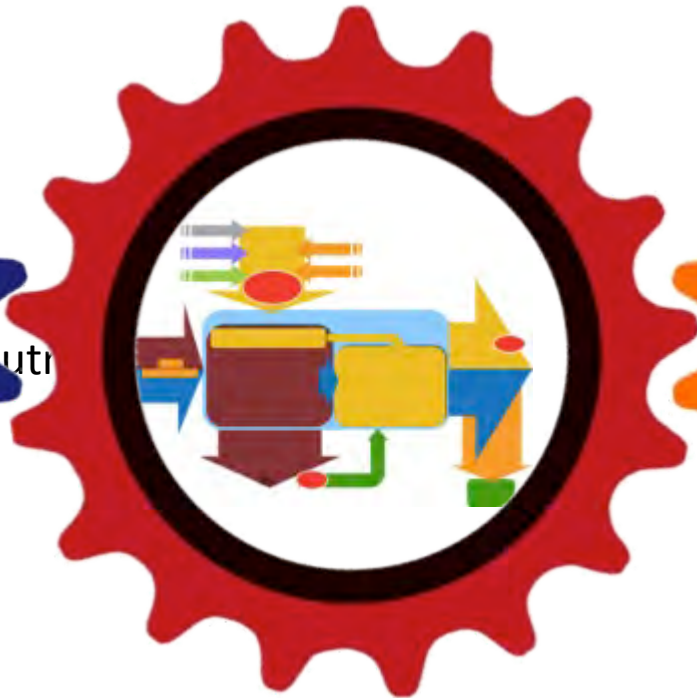


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Outreach

Curriculum Reform

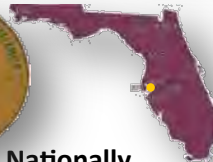
Professional Development



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“technology is more fun when you actually know what is going on without much fanfare about the science or the math lurking about”

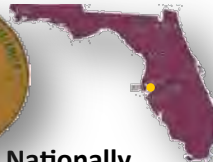


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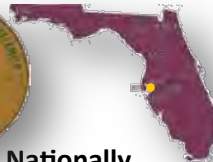
WHAT CAMPERs DO

- ➔ program and reconfigure robots
- ➔ work with sensors
- ➔ team challenges
- ➔ design products
- ➔ print 3D nameplates
- ➔ tour a highly automated facility
- ➔ explore careers
- ➔ Friday challenge with families
- ➔ have fun!



WHAT THEY DON'T KNOW THEY DO

- ➔ recognize challenges
- ➔ address challenges
- ➔ experience teamwork
- ➔ apply math & science
- ➔ integrate technical systems
- ➔ practice communications skills
- ➔ troubleshoot
- ➔ solve problems
- ➔ learn persistence
- ➔ create & innovate



2013

3 Intro
@ HCC
Brandon
(1 all girls)

3 Intro
@ IHMC
Ocala

1 H.S.
engineering
@ HCC
Brandon

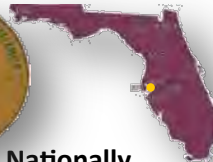
2 Intro
@ Levy
County

1 Intro
@ Citrus
County

3 Intro
@ IHMC
Ocala

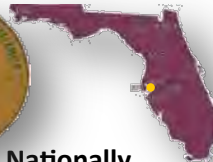
2 Intro
@ FGC
Lake City

2 Inter.
@ HCC
Brandon




HOW WE DO IT?

- ➔ in-kind space
- ➔ own robots; borrow laptops
- ➔ built on Cornell curriculum
- ➔ Identify sponsors/ donations
- ➔ camp manager
- ➔ lead teacher + helper

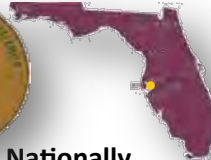
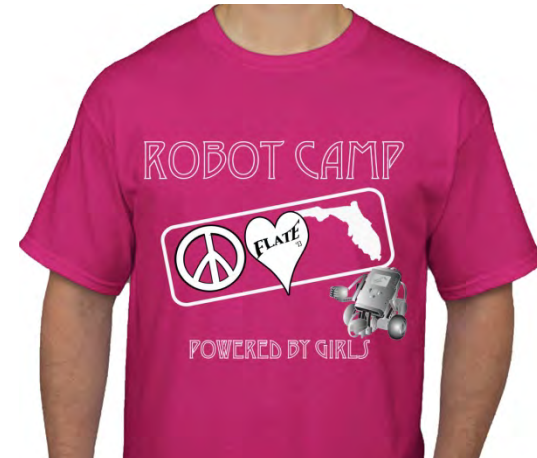


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HOW WE DO IT?



Robotics Camp Survival Guide
a FLATE Best Practices Guide
www.fl-ate.org



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{SPECIAL}

THANKS TO OUR



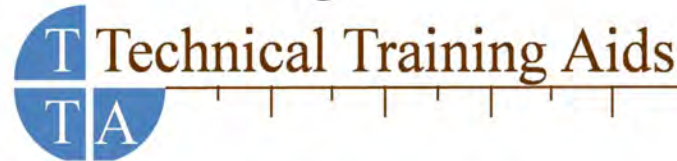
2013 ROBOTICS CAMPS SPONSORS



HCC



Publix



Suncoast Chapter
159



CHROMALLOY

MFG DAY

10.04.13 *in*

FLORIDA!

*Our goal is to have at least 200
"Made in Florida" Industry Tours
on **October 4, 2013 – MFG Day.**
Open Your Doors to Your Future!*

Open **YOUR** doors to **YOUR** future!

Host a "Made in Florida" Industry Tour

Dispel outdated myths about manufacturing

Tell your company's story

Connect with your potential customers

Inspire a [new](#) generation of manufacturers

FLATE Can Help

Assist in organizing tours • Survey students & teachers

Compile data • Disseminate results • Distribute T-shirts

Manufacturers / Associations

Post your event • Offer lunch & MFG T-shirts • Take photos!

Districts / Schools / Community Groups

Provide transportation • recruit students, teachers, chaperones

www.mfgday.com



CONTACT US

Marilyn Barger, Executive Director, FLATE

813.259.6578 barger@fl-ate.org

Desh Bagley, Outreach Manager, FLATE

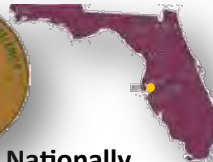
813.253.7838 bagley@fl-ate.org



Participate in BAMA STEM activities!

what **YOU** can do

- ✓ Host student tours
- ✓ Join program advisory boards
- ✓ Provide real world problems for curriculum
- ✓ Mentor robotics teams
- ✓ Judge science/engineering fairs
- ✓ Review scholarship applications
- ✓ Visit students at robotics camps
- ✓ Support STEM programs financially



2013

**Lego
Mindstorms**

**ROBOTICS
CAMPS**




FLATE
FLORIDA ADVANCED
TECHNOLOGICAL
EDUCATION CENTER

A National Science Foundation Regional Center
For Advanced Technological Education



HILLSBOROUGH
COMMUNITY COLLEGE

HCC

BAMA

Made in
FLORIDA



NSF



BAMA

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BAMA System & Scholarship Program 2013

Sample Summer Camp Teams

Team 1



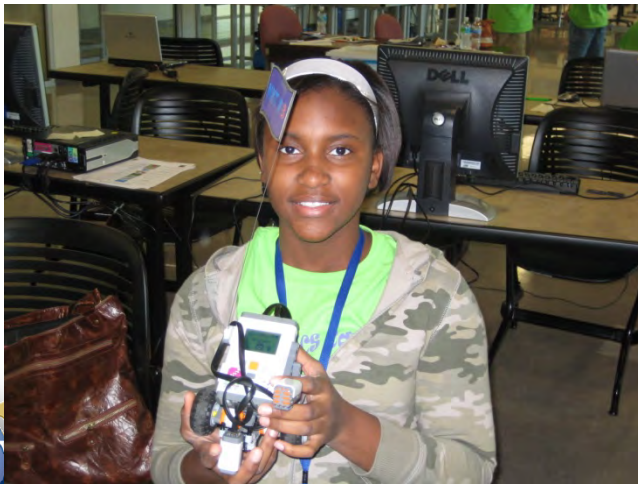
The Roaming Robots

Team 2



The Skillful Robots

Team 3

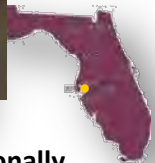


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Team 4



Disco Monkeys



Team 5



T & C

Team 6



Automated Terror

Team 7



Robots

Team 8



Team 9



Team 10



Team Sonic



Short Circuits



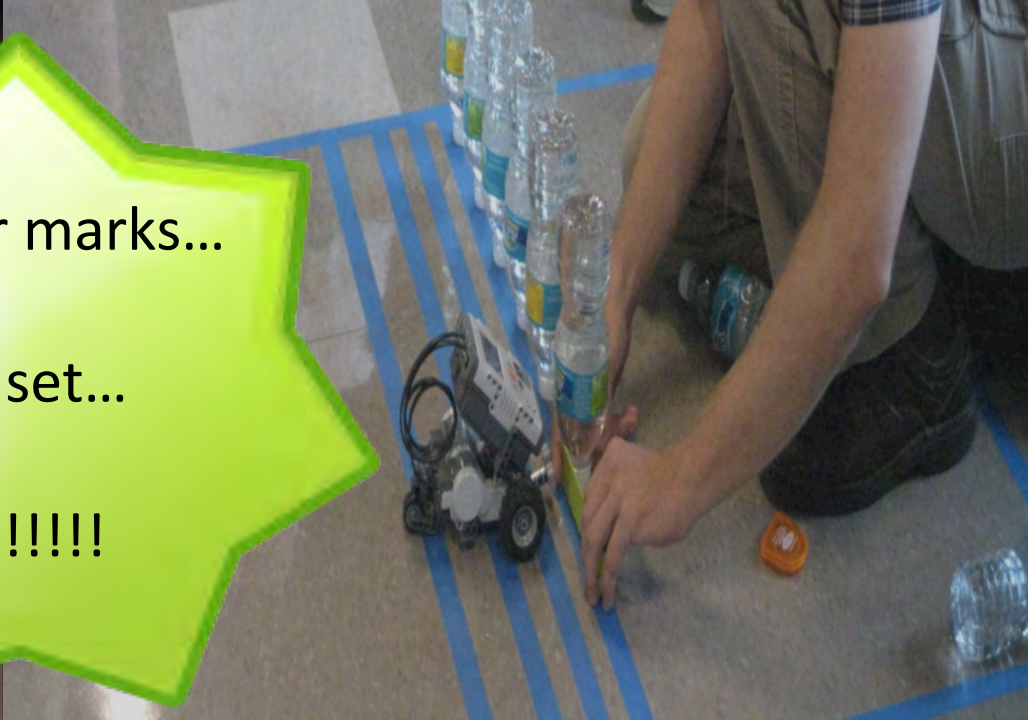
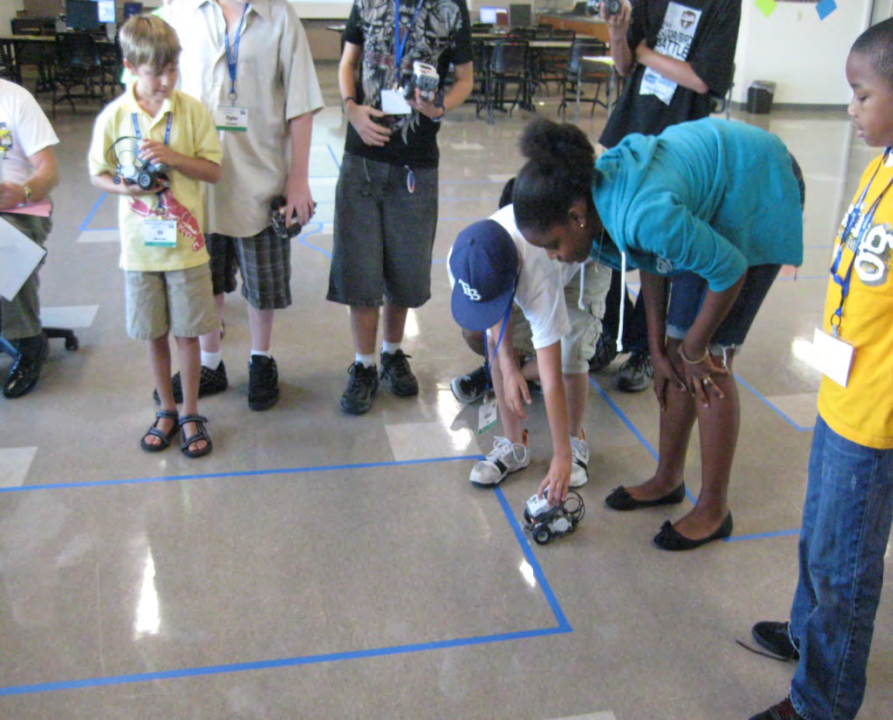
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Challenge A: The Bottle Touch

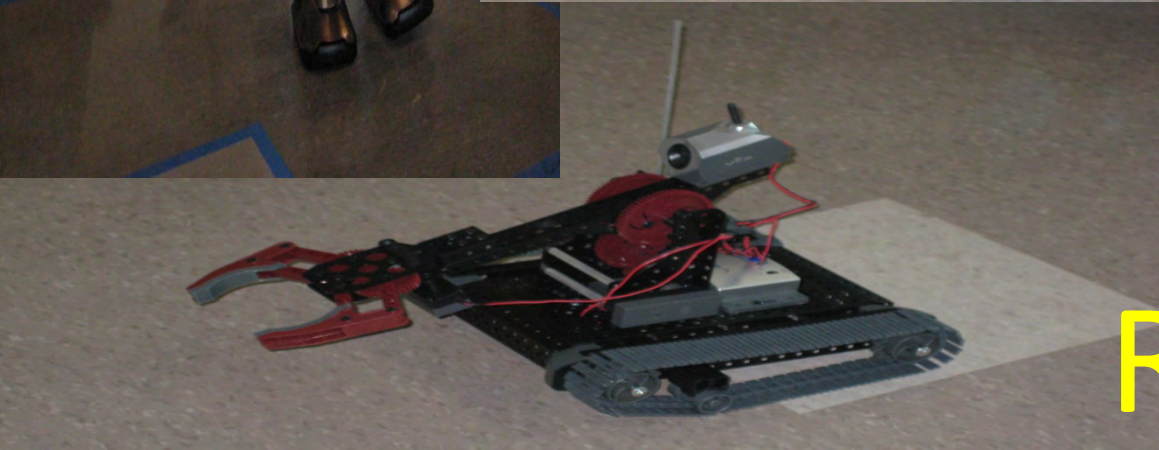
**THE
COURSE**





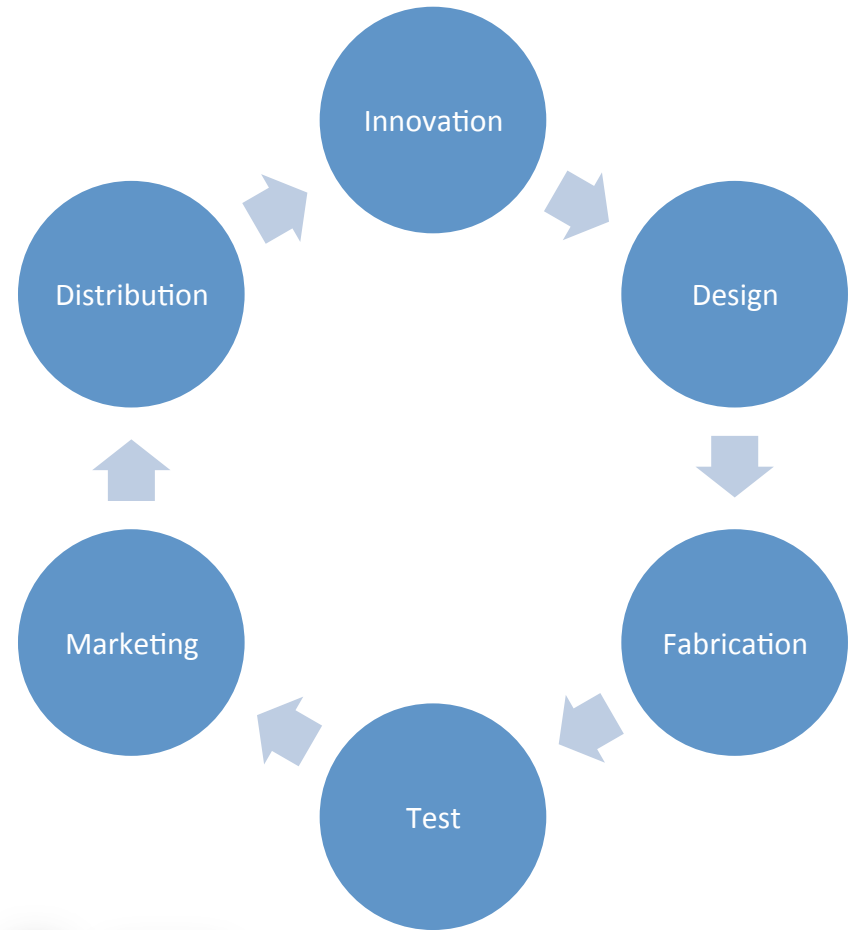
On your marks...
Get set...
GO!!!!

**HANDS-ON FUN
WITH...**



ROBOTS!!!!

Made In Florida Presentation

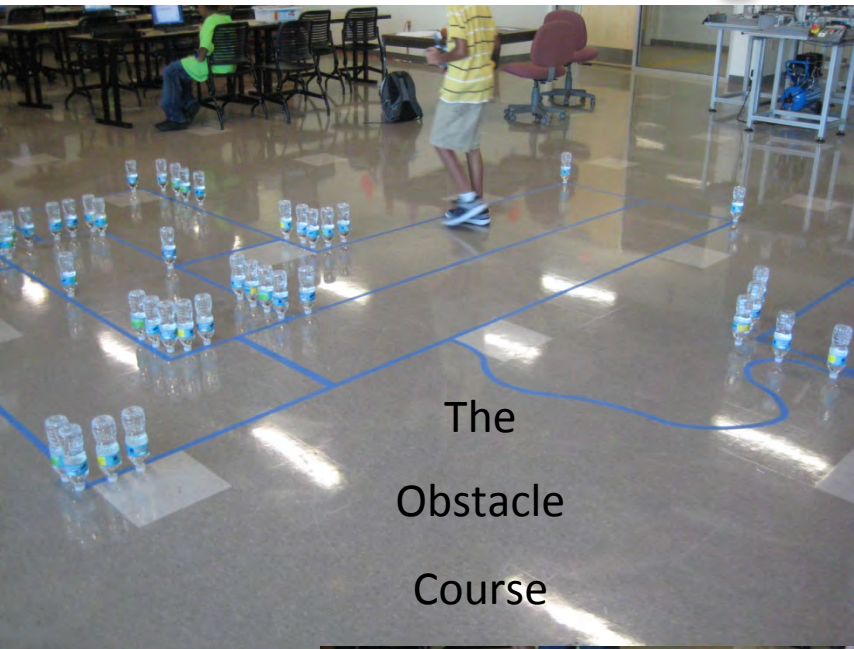


17,000 people over 300,000 jobs
in Florida's Manufacturing Industry

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Challenge B: Obstacle Course

The Automated Terrors demonstrate the obstacle course challenge.



The
Obstacle
Course



Don't
Hit
The
Water

Bottles!!!

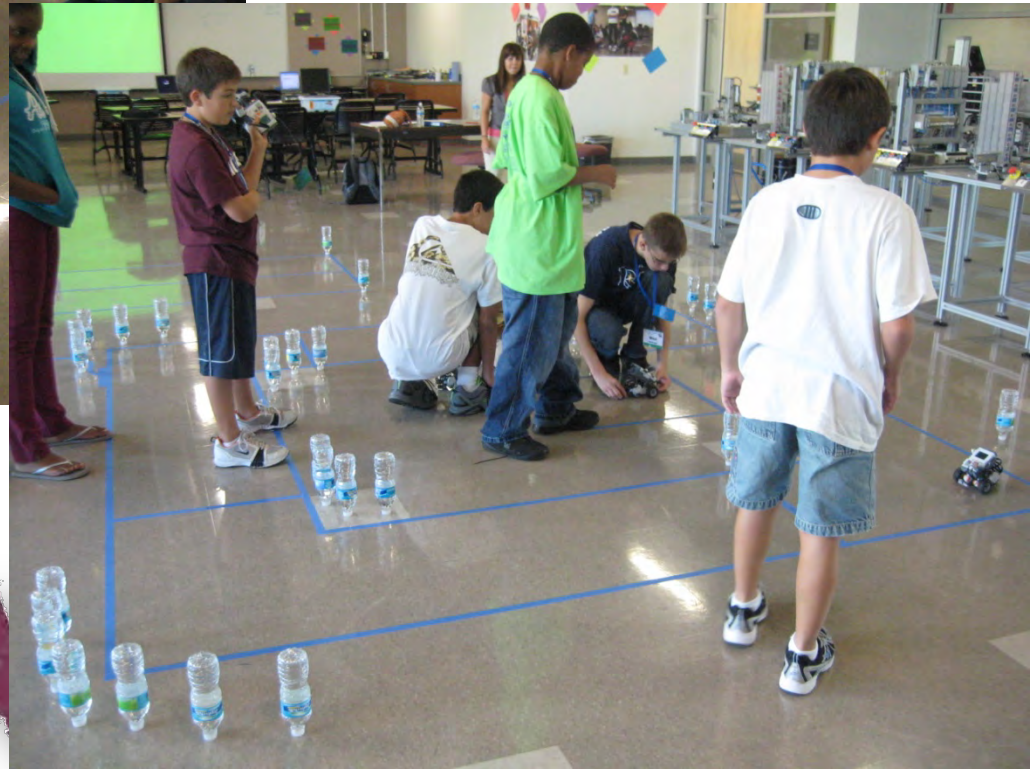


Go
Teams!!!

Challenge C: Guided by Sound



You've Got
To
Clap



To
Make It



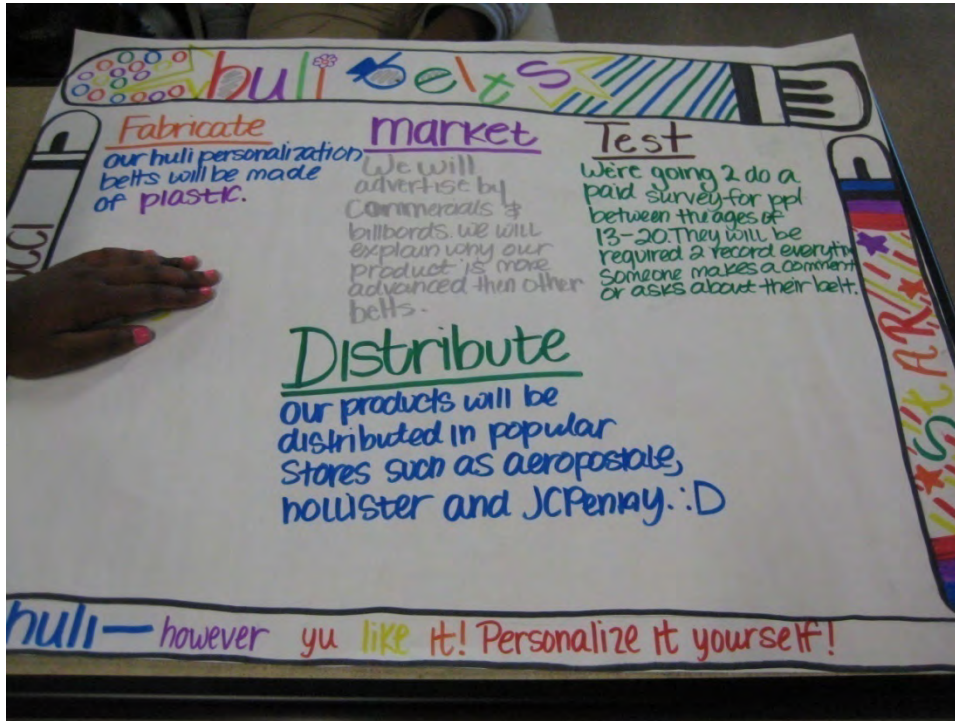
WWW.



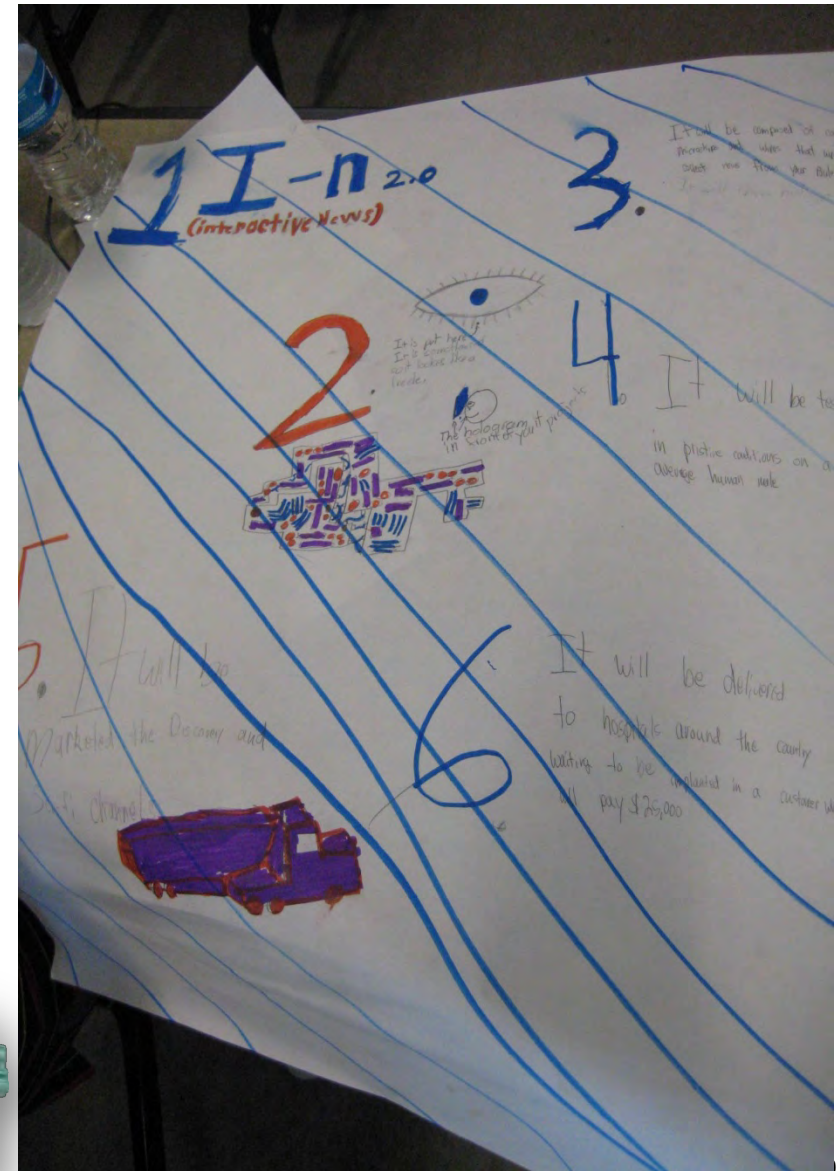
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Creative Manufacturing Ideas

HULI Belts (How U Like It)



I-n (Interactive News) 2.0



The Diamond

It's a phone and a gaming device all in one!

1. Innovate

2. Design

Blindmaster



3. Fabricate

4. Test

Made of thin, lightweight composite
a sliding bar, made in plastic



5. Market

6. Distribute

We will distribute
our product using

The HouseCAlator

Pet Safe

Fabricate

made mainly out of steel
conveyor belt between stairs
and escalator
company sends a builder out to
put it together

Test

- use a
- press
- press
- get



FLYIN' REmote

\$300
working device inside!
command (COO)D
like a charm!

6.

We will distribute this
product by the millions
and will be delivered
by trucks and
airplanes across
the U.S and
the U.K

3. Fabricate

Machines place the ball
control with the motor
function and ball with bumper
top part with antenna

4.

5.

5 This remote is
good results of
1000 testers
930 have
remote work

We will
in the
Billions
per and
highway

FIGHTER PLANE GPS

Automatic
GPS



TEST



Impact Flori

Challenge D: Line Followers

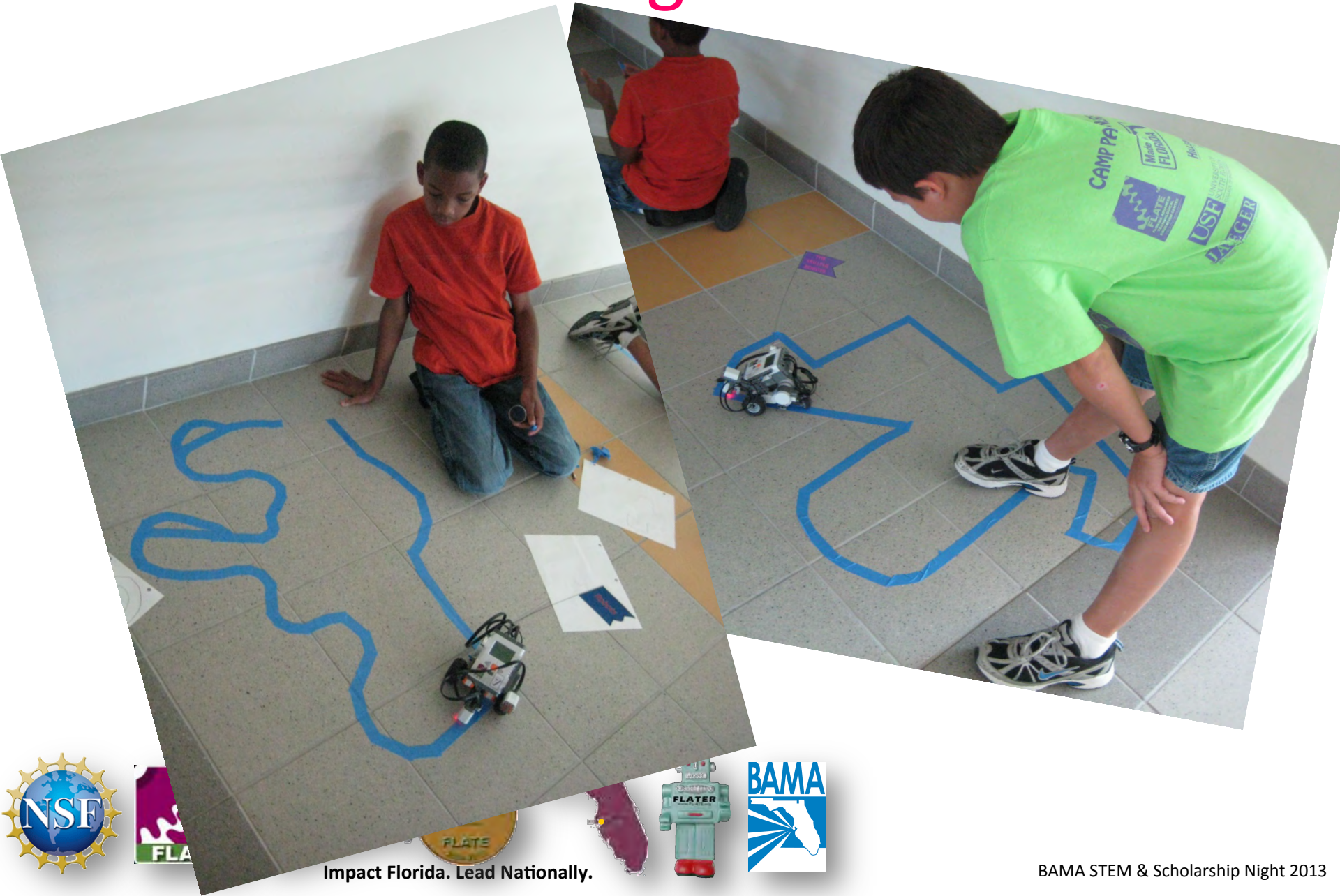


Creating the Course



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Testing It Out



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Challenge E: The Final Challenge



The
Ultimate
Course!



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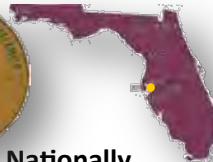
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All teams who participate are winners!

Thank you

BAMA Industry Partners

for sponsoring a fun and educational robotics camp experience!



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Questions and Answers?

Thank you!

Marilyn Barger, Ph.D., P.E.

BAMA Scholarship chairperson

Executive Director and Principal Investigator, FLATE

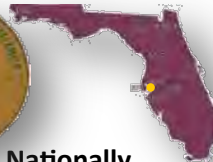
Florida Advanced Technological Education Center of Excellence

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