

BEST

Boosting Engineering, Science, and Technology



The BEST Robotics Program

*Middle-school and High-school
Robotics Competition*



BEST™

Our Method

We're *not* about robotics.

Robotics is simply the vehicle we use to

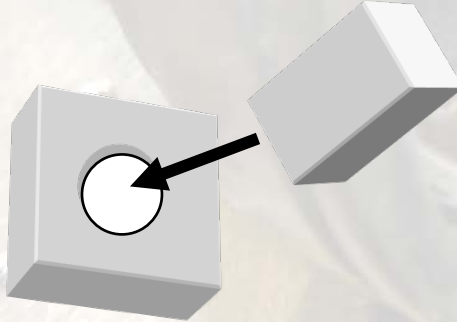
Inspire, Motivate, and Educate
Students



Our Method

Mimic Industry by challenging students

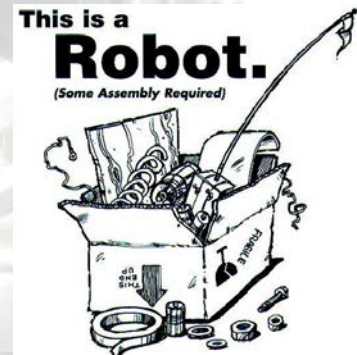
a problem to solve



“the game”

Design To Function

with limited resources



“the kit”

Design To Cost

In a limited time



“6 weeks”

Time To Market

Our Guiding Principles



- **Students** are the primary participants, decision-makers, designers, and builders
- **BEST is open to all schools**, regardless of type, size, location, or socio-economic status
- All robotics equipment and construction materials **are provided at no cost to participating schools**
- BEST teams are **school-based teams, 1 team per school**

New Product Development



Game Themes Mirror Industry...

- Each year a brand new game is conceived
- The game is “themed” around real-world industry issues or activities.
- Students are introduced to various industries and real-world problems by participating; for example

[2008](#) Just Plane Crazy

Airplane Manufacturing

[2009](#) High Octane

Chemical Engineering

[2010](#) Total Recall

Six Sigma Production Quality

[2011](#) BUGS!

Genetic Engineering

[2012](#) WARP XX

Space Elevator

[2013](#) Gatekeeper

Logic Design/Semiconductors

[2014](#) Blade Runner

Wind Turbines Logistics & Assembly

[2015](#) Pay Dirt

Mining and Economics

Educational Theme Examples



2003: “Transfusion Confusion”

Nanorobotics



2006: “Mission to Hubble”

NASA’s Hubble Repair Mission

Educational Theme Examples



2010: “Total Recall”

Lean Manufacturing and Six-Sigma

Educational Theme Examples



2012: "Warp XX"

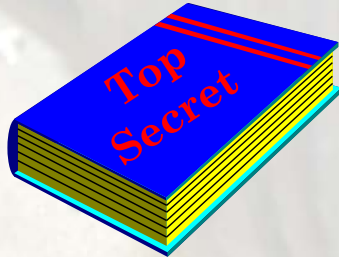
Space Elevators

How BEST Works



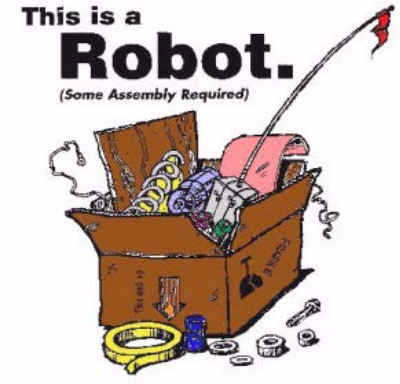
The Rules

Size, Weight Specifications
Task (Game) Description



The Kit

Constrained Parts Selection



Team of Students

- Unlimited Size
- Various Backgrounds

Mentors

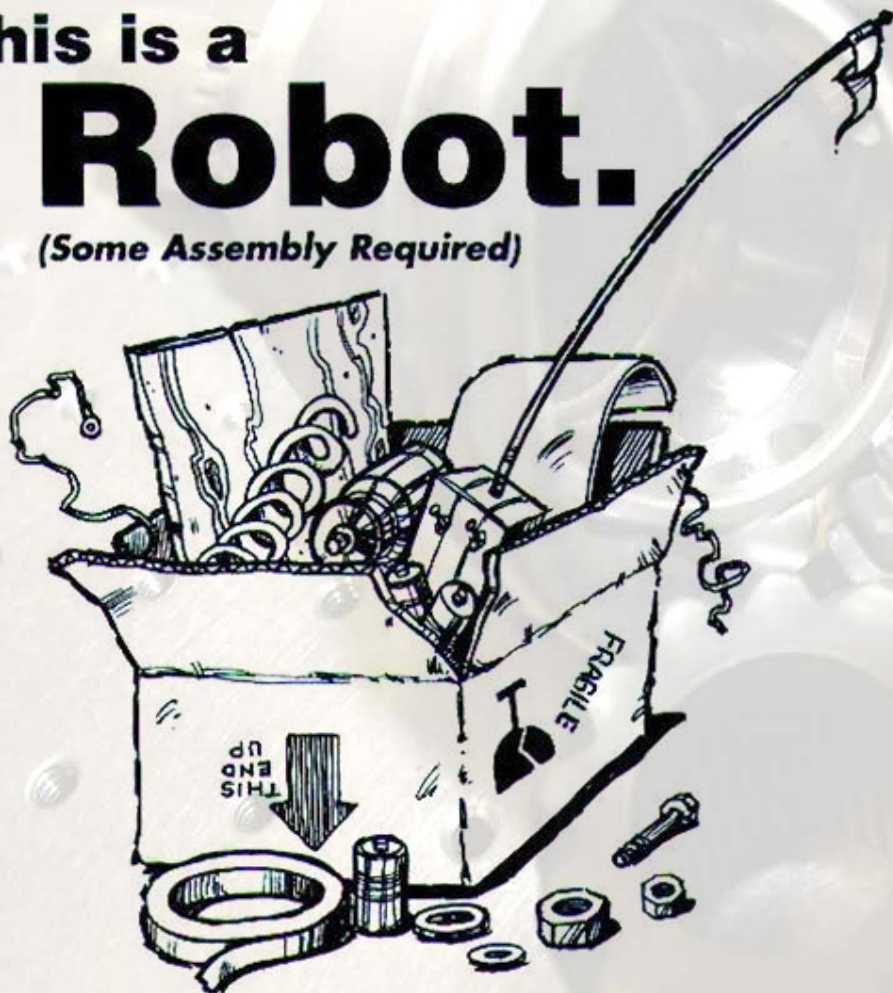


The BEST Kit

This is a

Robot.

(Some Assembly Required)



Consumable Kit

- Raw Materials, Specific Qty



Returnable Kit

- Control System

- Return @ Conclusion





BEST™

How BEST Works

Team of Students



Product Development Process

Concept

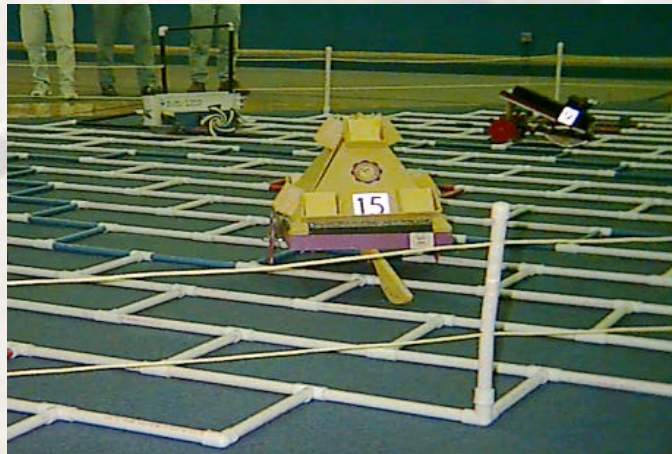
Design

Build

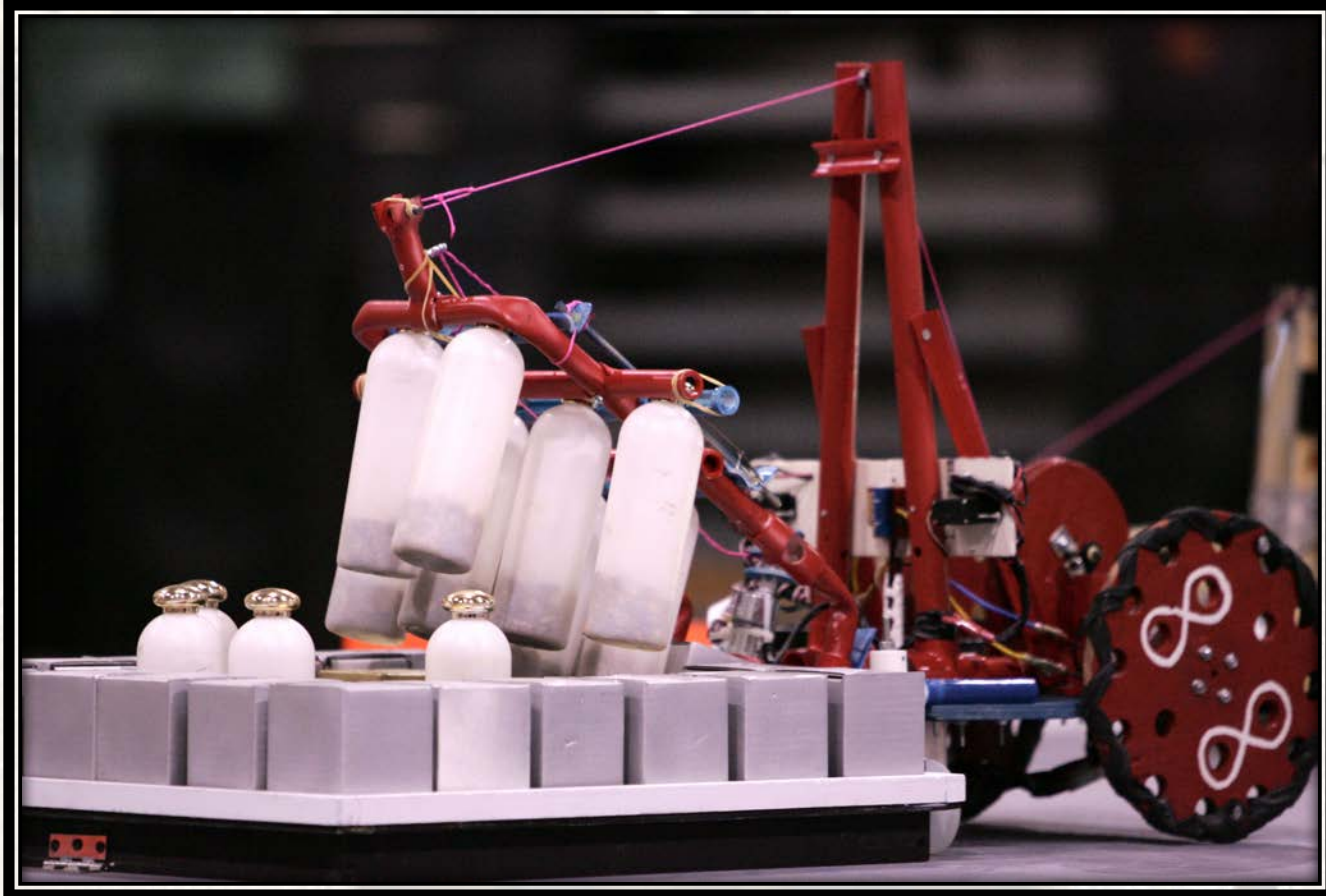
Test

6 weeks

Remote-Controlled Robot



Head-to-Head Competition **Performance**





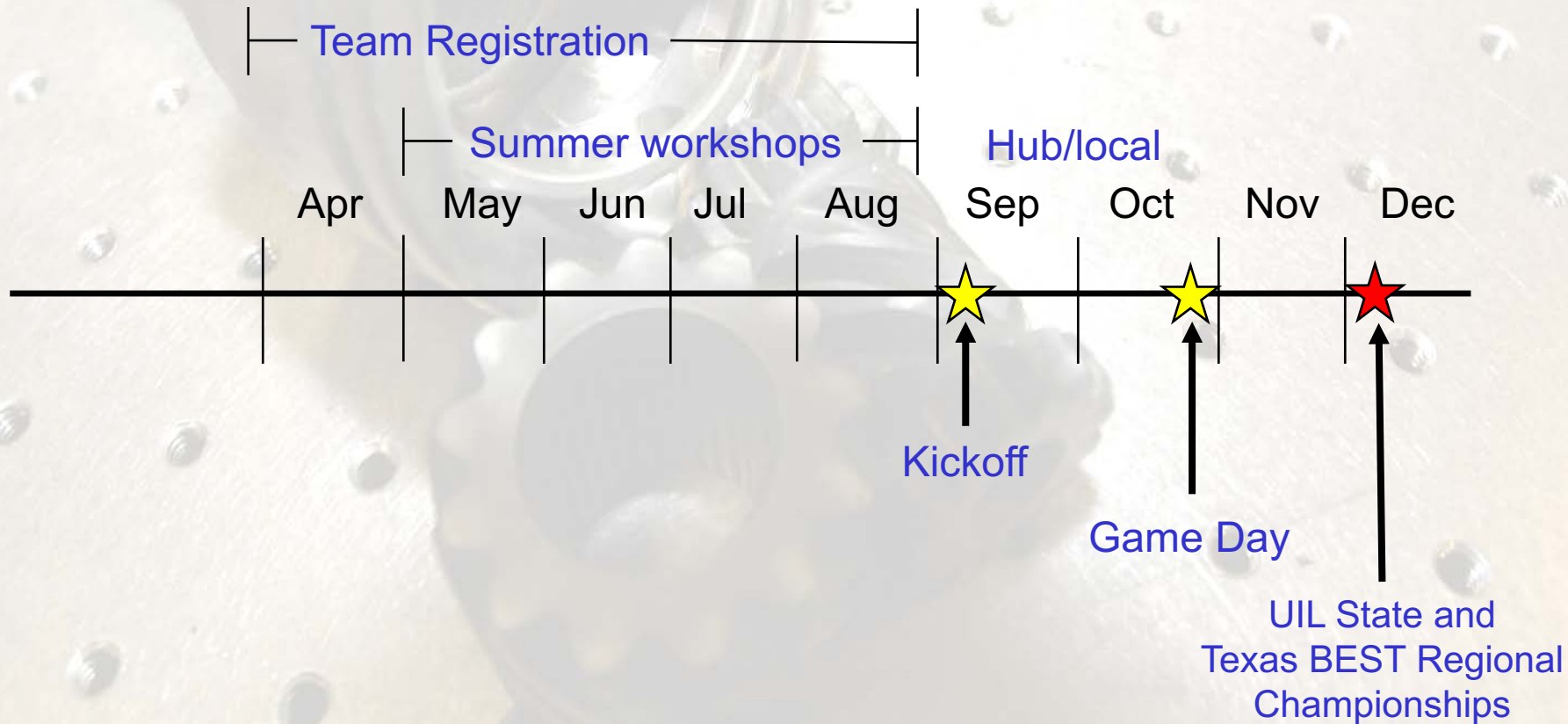






Timeline

- Team registration starts in Spring
- Fall 6-week Program
- Championships in early December



BEST Events



<i>Kickoff Day</i>	<i>Early/Mid September</i>
<i>Test Drive (Practice)</i>	<i>End of 3rd Week</i>
<i>Practice Day</i>	<i>End of 5th Week</i>
<i>Machine Compliance Check</i>	<i>End of 6th week (night before)</i>
<i>Local Competition</i>	<i>End of 6th week</i>
<i>Regional Championship</i>	<i>Nov/Dec</i>

Top teams at local competition will advance to the Texas BEST Regional Championship.

Top UIL teams will advance to the UIL State Championship.

A team can qualify for both.

The number of teams advancing will depend on the total number of teams participating.



BEST Award ***(UIL Championship Criteria)***

Based on all aspects of the product development.

Highest score considering all areas.

(Notebook, Exhibit, Marketing, Interviews, Robot Performance)

AWARDS: 1st – 3rd Place BEST Award

Best Team Exhibit

Best Dressed

Best Website

Best Spirit Break

Sportsmanship

Teamwork

Best Mentor

Robot Head-to-Head Competition

***Based primarily on the design and performance
of the robot.***

AWARDS: 1st – 4th Place Head-to-Head

Match High Score

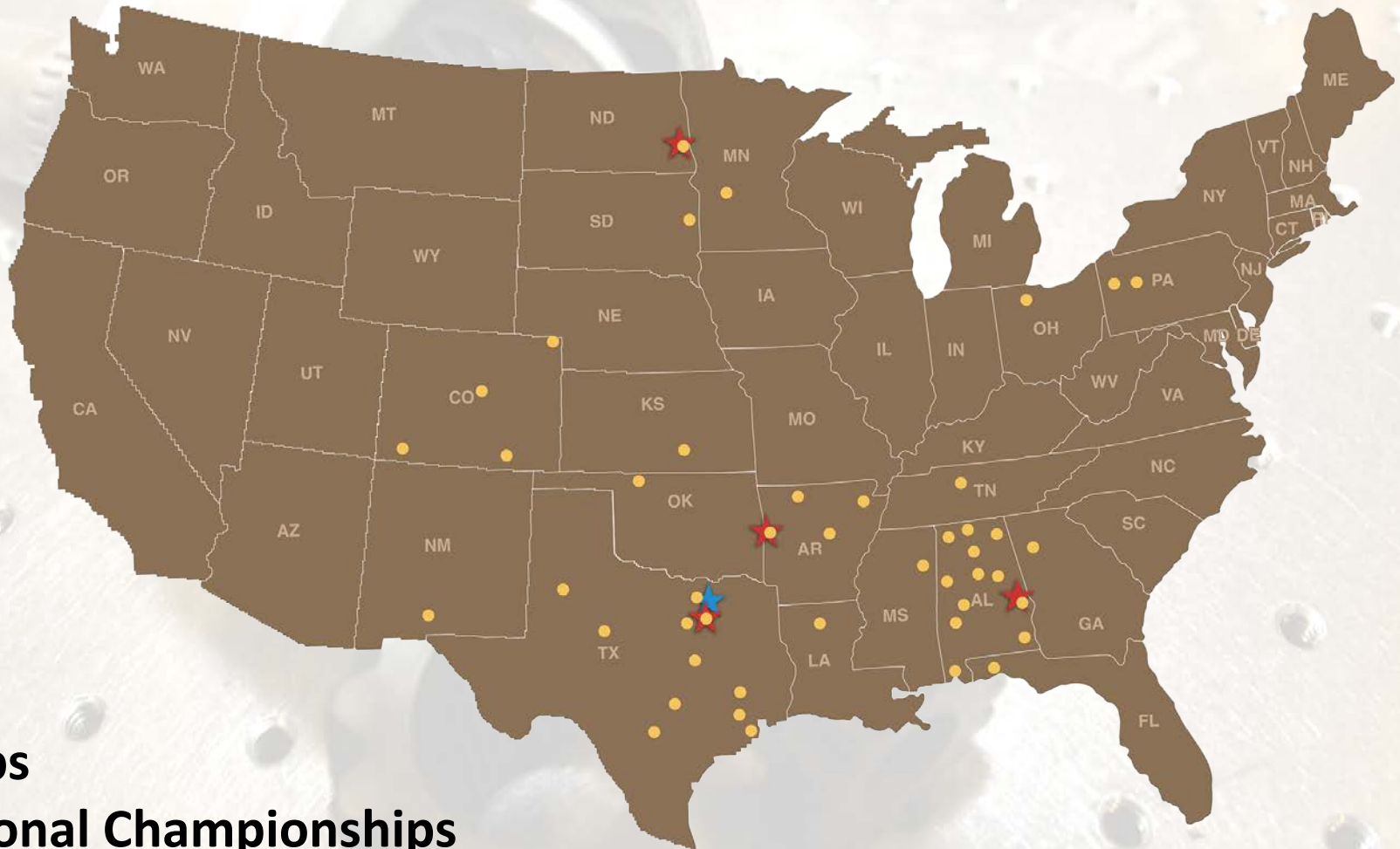
Honorable Mention

Most Robust Design

Creative Design

Most Photogenic

2016 BEST Hubs & Regionals



46 hubs

4 Regional Championships

33 colleges/universities

13 corporate, school district, govt

11 Texas Hubs

★ UIL State Championship

UIL Partnership



- **New UIL State Championship Event**
 - Complimentary to existing Texas BEST Regional Championship
 - Top 40 teams
 - December 8-9, 2016, Frisco, Texas
- **High School teams opting for UIL participation**
 - Qualify at a local Hub Competition
 - Judged against other UIL teams
 - Advancement based on BEST Award scores
 - Can advance to both BEST Regional and UIL State Championships

UIL Partnership



- ◆ For more information, contact:

<http://www.bestoftexasrobotics.org/uil-state-championship.html>

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