

The logo for UIL & Robotics features the letters 'UIL' in a dark blue, bold, sans-serif font. The letter 'U' contains a white silhouette of the state of Texas. A red five-pointed star is positioned above the 'I'. To the right of the 'UIL' logo is the text '& Robotics' in a large, black, sans-serif font.

UIL & Robotics

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UIL Robotics 1.0?



THE WAY
BACK



Turtle Power

THERE'S NO EVIDENCE TO SUGGEST THAT THE INHABITANTS OF Turtle Pond ever met Tessie, a giant mechanical Franken-turtle built at UT in 1954, but at roughly 4 feet long and 3 feet wide, Tessie was surely big enough to fill UT's flesh-and-bone reptile populace with Vader-esque feelings of dread.

Perhaps Tessie's friendly eyes and generous smile painted atop her papier-mâché head would have been enough to dispel any foreboding. If not, a quick glance underneath the hood—or shell—would reveal her to be little more than a mass of wires and motors.

Though the reasoning behind the turtle's construction is lost to history, Tessie was built by

Arthur W. Ivy, BS '54, and displayed at the University Interscholastic League's 45th All-University Exposition and Power Show. Among the creations accompanying Tessie at the annual exhibit of future scientific feats was an electronic tic-tac-toe player named George, constructed out of disused pinball machines. — Ben Wright

CREDIT: University
Interscholastic League
Records, Briscoe
Center, UT-Austin

Robotics Pilot Program Development

- Informal discussions ongoing for several years
 - A perfect fit for the direction we want to go with STEM
 - Pushed toward immediate action during Sunset Review process
- Pilot program development authorized by UIL Legislative Council in October 2014
- The UIL pilot process:
 - Approval of concept and development
 - Rules for pilot events are not included in the UIL Constitution & Contest Rules
 - Allows flexibility for ongoing adjustments during the pilot
 - Current pilots and timeframes



UIL and STEM

- Current competitions include Calculator Applications, Computer Science, Mathematics, Number Sense and Science
 - All are paper-and-pencil test format (except the programming component of Computer Science)
- Expansion of STEM programs is a key goal for UIL Academics
 - Focus on activities that are collaborative, project-based and engage students' creativity
 - Robotics fits that objective perfectly

Robotics in Texas

When program development began...

- UIL had no previous involvement with Robotics
- Multiple organizations offering well-established programs of Robotics competition
- Many UIL schools already participating with Robotics organizations

Where would UIL fit in this already active landscape?



Pilot Program Objectives

- Facilitate growth of robotics participation statewide
- Provide avenues for schools with diverse needs:
 - Large or small
 - Limited resources or substantial resources
 - Well-established robotics program or just getting started
- Think big...but not too big to be manageable

Three Possible Approaches to Program Development

- Build a completely new UIL-developed contest
- Build a program that would try to encompass most of what is already out there
- Implement a program through partnership with established organization(s)

Pilot Program Specifics

- Following extensive research and careful deliberation, two organizations were chosen for participation in the UIL pilot program

- BEST Robotics



- FIRST Robotics



- Both organizations have a proven track record, with more than 20 years of successful robotics competition in Texas

FIRST Robotics

- Experience working with state activities associations on championship competitions
- Offers multiple programs: the UIL pilot will include two *FIRST* programs:
 - *FIRST* Robotics Competition (FRC)
 - *FIRST* Tech Challenge (FTC)
- UIL Robotics State Championship – *FIRST* Division
 - July 28–30, 2016
 - Austin Convention Center
 - Held in conjunction with the annual Texas Robot Roundup event
 - Qualification based on performance during the 2015–2016 *FIRST* competition season
 - Invitations sent to teams last month



BEST Robotics

- Low-cost participation model
- Compact fall schedule
 - Season kickoff in September
- UIL Robotics State Championship – BEST Division
 - December 8–9, 2016
 - Dr Pepper Arena – Frisco TX
 - Qualification based on the fall 2016 BEST competition season
 - Details will be posted during the summer

Education and Training

- Summer Workshops
- Student Activities Conferences this fall
- Additional training opportunities are in development, possibly working with Regional Service Centers
- Information will be posted on the UIL Robotics Resources page as it becomes available

Robotics as a UIL Program

- New directions for UIL Academics
 - Contests with different formats, different structures
 - Moving outside the old Spring Meet box
 - Congress and Film are examples
 - Both have seen tremendous participation growth during three years as pilot programs
 - Both are on track to become officially adopted contests for 2016–2017

Robotics as a UIL Program

- STEM
 - Area of renewed emphasis for UIL Academics
 - Existing STEM activities are going strong, but we need a long-term approach
 - New activities, and evolution of existing ones, should be designed to engage today's students – and tomorrow's

Robotics as a UIL Program

- Creative, collaborative, project-based
 - Not all UIL activities have to fit these criteria, but we need more that do, particularly in STEM
- Robotics is a perfect fit for the future of UIL Academics

Robotics as a UIL Program – Logistics

- Robotics is a standalone event, like Congress and Film
- UIL Robotics will include a fall (BEST) and a spring (*FIRST*) season
 - Your school CAN participate in both
- UIL Robotics is an addition to the programs already offered through BEST and *FIRST*
- Starting a team and participating in the *FIRST* and BEST competitive seasons allows you to qualify for the UIL State Robotics Championships

Robotics as a UIL Program – Logistics

- Robotics will NOT be added to your UIL Academic district meets
- The competition seasons for UIL Robotics will be those for BEST and *FIRST*
- Both organizations have a system of qualifier meets already in place – UIL Robotics will be an additional component of those existing qualifiers

Robotics as a UIL Program – Logistics

- UIL-eligible Robotics teams will be ranked based on their performance in *FIRST* or BEST qualifier meets, using pre-defined scoring criteria
- Teams will be invited to participate based on their rankings and the number of slots available for the championship event
 - Waiting lists will be maintained

Robotics as a UIL Program – Logistics

- During the initial phase of the pilot, each championship will most likely include a single division
- Divisional splits based on school size will be evaluated and phased in based on participation
 - Film example
- No sweepstakes points are awarded for pilot contests.
- If officially adopted, Robotics would receive points toward overall Academic State Championships.

How to Participate in UIL Robotics – in a Nutshell

- Attend training sessions and workshops
- Evaluate the options available and determine the best fit for your school
- Visit the *FIRST* and/or BEST websites to find out the steps to register a team and to explore available resources for funding and support
- Participate in qualifier meets during the regular BEST and *FIRST* competition seasons
- Your team's performance in those meets will determine qualification for the UIL state championships, as well as advancement within the *FIRST* and BEST structures

Where we go from here

- Our initial *FIRST* Division championship event next month
- Continue with education and training opportunities
- BEST competition season in the fall, leading up to our initial BEST Division championship in December

Where we go from here

- The *FIRST* event happening in the summer is most likely a one-time thing to help us launch the pilot
- Subsequent *FIRST* Division championships would be in the spring
- Details on spring of 2017 will be worked out in the coming weeks
- By summer of 2017, we'll have a better sense of next steps and hopefully long-term direction

Questions

- www.uiltexas.org/academics/stem/robotics
- robotics@uiltexas.org