



T H E TORQUE TIMES

FRC TEAM 1477 ■ TEXAS TORQUE

FEBRUARY 2014 - EDITION ONE



HALLIBURTON



LEAD MENTOR

SCOTT RIPPETOE

BUILD MENTORS

JAMES TONTHAT

RAYNE BERION

CASSIE STEFFY

CHAIRMAN'S MENTOR

JASON BALL

SHERRY COATS

BUSINESS MENTOR

MATT DAVIES

UPCOMING EVENTS

Build Season Ends 2/18

Science Night 2/27

Dallas Regional 3/13-15

Lone Star Regional 4/4-6

FRC BUILD SEASON NEARS ITS END

After six weeks of intense brainstorming, design, and construction, the 2014 build season for the FIRST Robotics Competition is almost over for Texas Torque.

Throughout the FIRST Robotics Competition community, teams have spent countless hours building robots for the competition season. The early half of Texas Torque's build season consisted of major prototyping as team members attempted to devise plausible and efficient solutions to this year's challenges. Engineers on Texas Torque split into various groups based on the subsystems on our robot, including the catapult, intake system, and catcher. At the same time, students and mentors worked together to design all of these constituents

using Computer Aided Design, or CAD.

While we continued to refine our prototypes, parts were ordered for the final product according to our computer models of the robot, and team members got to work with assembly.

With less than three days left before the robot is bagged and tagged, work has kicked into the highest gear possible. Every member of the team is working their best to finish the robot. The classic black and white finish of Texas Torque's robots was not forgotten, either; with the help of team mentors and sponsors, the black and white powder-coated parts can currently be found throughout the lab and on our competition

robot.

Every member, mentor, and sponsor deserves thanks at this point for all of their effort throughout this season. The work was undoubtedly difficult, but we are pleased with what has been accomplished.



TORQUE VOLUNTEERISM AT THE SCI:// TECH EXPO

Texas Torque is well known for its active role in the community, and this year has been no exception. Despite one of the busiest schedules in Texas Torque's history, team members made a constant effort to help out with the Sci:// Tech Exposition, an annual series of events and competitions held in Conroe ISD to promote science

and technology.

At the beginning of the campaign, Texas Torque held a demonstration at the Lone Star Expo, where team members answered questions about the team and the 2013 robot. Outreach Captain Matt Bartell worked hard to organize members of the team to help judge the Junior and Senior

divisions of the Engineering Design Competition.

We are continuing these efforts with more demonstrations in the near future. Thanks to Texas Torque volunteers, hundreds of young students will get the chance to experience STEM at its finest.

ESSAYS, VIDEOS, AND BUSINESS REPORTS... OH MY

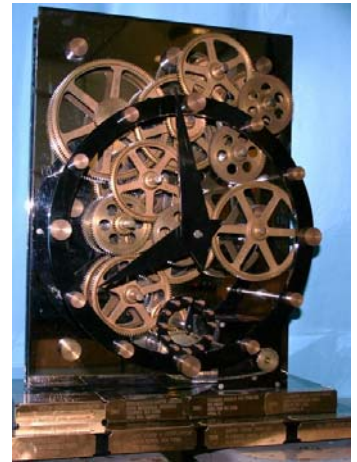
While Texas Torque engineers continue to design and build the robot for this year's game, key members of our team have spent countless hours working toward FIRST's greatest honor — the Chairman's award.

The Chairman's Award in the FIRST Robotics Competition is the most prestigious honor in FIRST, designed to "honor the team that best represents a model for other

teams to emulate and best embodies the purpose and goals of *FIRST*. "Awards Captain Chase Noren has led the effort for the past six weeks and beyond, compiling the team's history into a 10,000 character essay and question set on the character and impact of the team in its community. In addition to these, a business report, a three minute video and a presentation must be com-

pleted for the judges at competition; all of these elements are considered when awarding the Chairman's Award team at a regional.

We thank all team members and mentors who helped with this effort. Hopefully, Texas Torque will win its first-ever Chairman's Award this year at the Dallas and Lone Star Regionals.

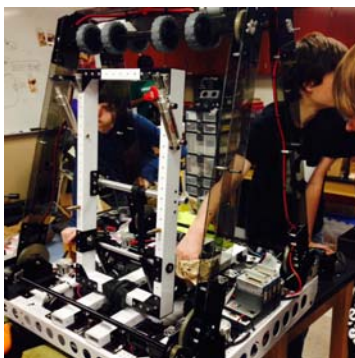
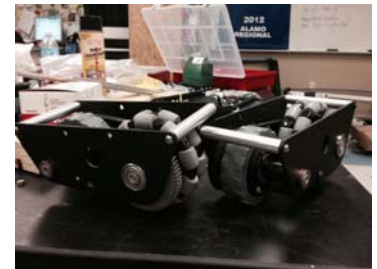


The FIRST Robotics Competition "Chairman's Clock".

BUILD CORNER

DRIVETRAIN

Two of the most important aspects of the robot this year will be maneuverability and speed, as the robot will likely need to weave in and out of defending robots on the opposing alliance, get into position for shooting the ball, etc. This can be achieved through the drive modules pictured to the right, which allow the robot to switch into the "omni wheel" configuration for impressive maneuverability around the field.



FULL ASSEMBLY (CODENAME: CHARLIE)

Here it is: the (nearly) finished product!

This is the robot that will be sent to each competition, with each component of the robot assembled. The two intakes on either side of the robot will allow us to pick up the ball from a wide range around the robot. Recent tests with the robot have shown that all the components, from intake to catapult are working together quite smoothly. Electronics and programming are yet to be completed. A full "robot reveal" video will be released on the Texas Torque YouTube channel and website within the next few weeks.

"Our mission is to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership." — **FIRST Mission**

