

THE NUTS AND BOLTS OF TECHHOUNDS



UPCOMING EVENT DATES

FIRST INDIANA DISTRICT EVENT
LAWRENCE NORTH HIGH SCHOOL
FEBRUARY 27 - MARCH 1

SECOND INDIANA DISTRICT
EVENT
FRANCE A. CORDOVA RECREATIONAL
SPORTS CENTER AT PURDUE
MARCH 19 - MARCH 21

INDIANA DISTRICT CHAMPION-
SHIP
WARREN CENTRAL HIGH SCHOOL
APRIL 2-APRIL 4.

ST. LOUIS INTERNATIONAL
COMPETITION
EDWARD JONES DOME
APRIL 23-27

RECYCLE RUSH

Recycle Rush is a recycling-themed game played by two Alliances of three robots each. Robots score points by stacking totes on scoring platforms, capping those stacks with recycling containers, and properly disposing of pool noodles, representing litter. In keeping with the recycling theme of the game, all game pieces used are reusable or recyclable by teams in their home locations or by FIRST at the end of the season.



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BUILD SEASON ENDS
ON
FEB 17.
MON, WED, FRI
3:20-6:30
TUES, THURS
6-9

QUOTE OF THE WEEK

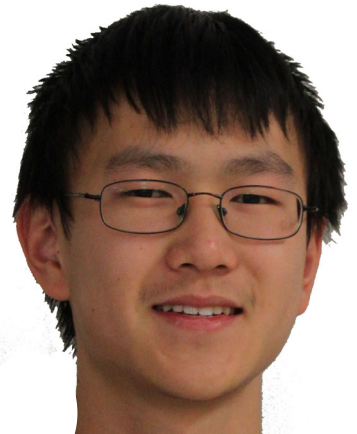
TECHHOUNDS THINK QUICKLY. WE HAVE DEADLINES TO MEET, SO WE NEED TO ADAPT AND COMPROMISE. WE'RE INDIVIDUALS WITH A TEAM GOAL.

LINNEA SCHULTZ

TIGER HUANG

On the lack of defense/bumpers: “It’s interesting, but defense is a really important part [of a game]. It might be more difficult for rookies to do [helpful] things.”

First impression of game: “Excited for stacking totes and putting pool noodles into the recycling bins.”



MR. BONEWIT

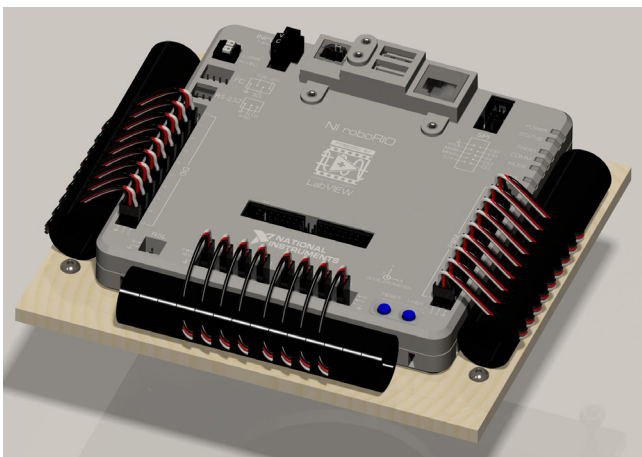
On the lack of defense/bumpers: “The games are going to be a lot less physical. Teams that typically strategize using defensive tactics are now forced to use offensive tactics.”

On no winners: “It puts less emphasis on winning and losing [individual matches], so to do well you have to have a pretty high scoring robot [for all matches].”

First impression of game: “This is a little different from what I’ve seen in the past. I’m very interested to see what we can come up with. I think that we’ll do fairly well, for we’re typically an offensive team anyways”



ROBORIO



Team 868 was handpicked to beta test the RoboRIO, a new electronic controller being introduced in the 2015 kit of parts. The RoboRIO replaces both the bulky cRIO and Digital Sidecar, and doubles the number of PWM cables that can be used. Electrical Lead,

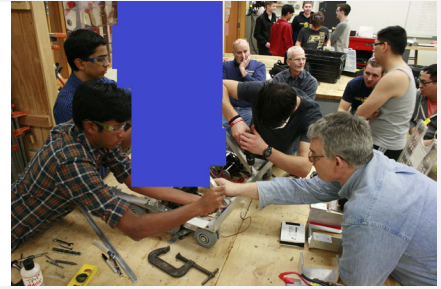
Jacob Swiezy, utilized the expansion port provided by the component, making an expansion board to run his LED’s.

The wiring is simpler than it was in the past and the coding isn’t very different from previous years, making this a welcome change. The number of digital I/O’s available are increased, and it is outfitted with its own analog output and USB ports. It has a much higher clock speed and is overall more versatile as a controller.

The controller has a linux system built into it with its own USB port and camera.

ROBOT OPS

“The Robot Ops division as a whole has been moving at an impressive pace, with a prototype tote stacker working on the second day of build season. We have had exceptional communication within our division and we had a large drivetrain discussion. This year we have four groups prototyping different ways to pick up various game pieces.”



PROGRAMMING

Programmers have been writing code for the prototype robot, with a focus on vision code. We want to be able to identify the yellow totes on the field with ease. In addition, newer members graduated from “beginner code” to “robot code” where they are learning more robotics-specific commands.

IT

IT continued configuring and building upon our scouting system. The open source scouting system is being modified in order to optimize data collection during matches. Because multiple combinations of the stacking result in various point values, we’re trying to make the system user friendly.

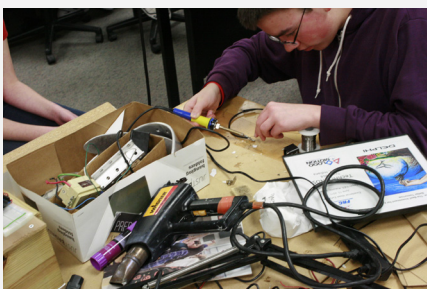


CONSTRUCTION

Construction has been focused on building the field so we can fully test the prototype robot. We’ve built the raised scoring platforms and tote chutes. The much anticipated battery box was redesigned during the preseason, and it will be ready for competition soon.

PR

The PR division has been hard at work with compiling information and quotes for the team newsletter, which we distribute bi-weekly during the build season. In addition, we have been designing locker signs, build season merchandise, and giveaways/pins for competitions. A new pit banner is also in the works.



ELECTRICAL

Electrical has been supporting Robot Ops, wiring up the prototype robots and assisting in modification of pneumatics. The division is also prototyping control components on a Launchpad Board.

We would like to thank our current 2014-2015 sponsors:

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