FIRST Robotics Team 3824

Hardin Valley Academy, Knoxville, TN

BAAMbot

2015 Recycle Rush Competition Results

1st seed and regional winners at Palmetto Regional (Week 1).
1st seed and regional winners at Smoky Mountains Regional (Week 6).
OPR of 100 at Smoky ranks 12th in the world (according to Ed Law's awesome spreadsheet.)

Team Strengths:

Extremely consistent.
We put up 2 full 42 point stacks with time to put up a 3rd stack.
We are a feeder station robot and can load from either station.
We stay in one corner of the field, creating no interference with alliance partners.
Team has not committed any fouls in two regionals (33 matches)
Drive team is very knowledgeable of the game rules.

Team Weaknesses:

We can pick up fallen containers, but are slow at this.
We are at our best with a couple of upright containers available.
We are not noodle throwers.
We are not canburglars.

Autonomous:

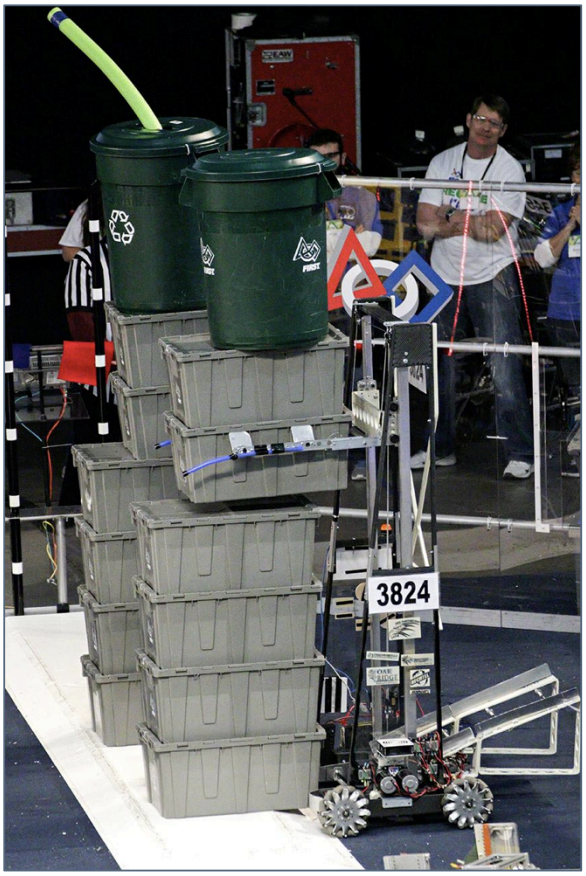
We have multiple auto routines, including
- Do nothing.
- Move to auto zone.
- Pick up a container and move to the auto zone.
- Pick up a yellow tote and move to the auto zone.

Team Experience:

4th trip to FIRST Championships in FIRST Team 3824's five-year history.
1st seed and regional winner in 4 of our last 5 regionals - and first overall pick of the draft in the 5th of those regionals.

Drive Team Experience:

Team Co-Captain and Coach Sierra Palmer was a human player in 2013 and is the coach in 2015. Sierra has competed at Championships for 3 years, including being in the Curie elimination rounds in 2013.
Driver Caleb Young is in his second year as driver. The team has been 1st seed and regional winner in 3 of the 4 regionals where Caleb was driver. This will be Caleb's second trip to Championships as driver. (Cool note: Caleb is a world record holder in Mario Kart.)



2 Full Stacks at Palmetto Regional (Week 1)

Find Us on YouTube!

FIRST3824 channel

3 Full Stacks Match – Week 6 - SMR Q72:
https://www.youtube.com/watch?v=TELqGM6DkIU
Smoky Mountains Regional Finals (Week 6)
https://www.youtube.com/watch?v=ZFzybbY0hXI
Autonomous Clip – Week 1 - Palmetto - Q35
https://www.youtube.com/watch?v=EeSHrecGwc4

FIRST Robotics Team 3824's 3D printed BAAMBot creates 3 fully-capped stacks during the Week 6 Smoky Mountains Regional Q72 round.

FIRST Robotics Team 3824 - 2015 BAAMbot

FIRST Team 3824's BAAMbot is made via BAAM (*Big Area Additive Manufacturing*), using the same technology that produced the world's first 3D-printed cars (Local Motors Strati and ORNL Shelby Cobra).

FIRST Team 3824 students work in Oak Ridge National Laboratory's Manufacturing Demonstration Facility. The majority of the BAAMbot is printed. It has about 25 lbs. worth of printed parts (chassis, forklift, truss) and takes about 2 hours to print. Students designed and built 4 robots this year. BAAM uses pellets as the feedstock so it's cheap ($2 to $5 per pound). The total cost for the printed robot parts was about $100.

- *3D-printed chassis made of carbon fiber-infused ABS as well as fiberglass-infused ABS* provides strength and durability.
- *Ramp with bearings* allows for quick and smooth back-loading of totes from human player station.
- *Hinged platforms actuated by pulley and cable system* allows for quick tote and recycling container stacking.

Want to learn more about 3D printing?

BAAM 3D Printed Cars: http://www.e-ci.com/baam-3d-car

Want to learn more about FIRST Robotics Team 3824?

www.rohawktics.org -- Twitter: @HVARoHAWKtics3824

Download the Aurasma App and follow @frc3824

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