

FIRST® LEGO® League Suncoast Championship Tournament Takes Place in Plant City, FL

**Ryan Graunke and Jeux Brown,
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Recently, representatives from Kessler Consulting, Inc. (KCI) were asked to serve as judges for the FIRST® LEGO® League (FLL) Suncoast Championship Tournament in Plant City, Florida. FLL is a program under FIRST (For Inspiration and Recognition of Science and Technology), an extracurricular organization dedicated to increasing STEM (Science, Technology, Engineering, and Math) engagement for children. In FLL, teams of up to 10 children (ages 9-14) participate in competitions consisting of three areas: designing a robot, completing a project and demonstrating the Core Values of FIRST.

Each year, FLL has a special topic that is the focus of the robot design and research project. This year the special topic was "Trash Trek." For this topic, teams were required to design and build a LEGO robot to accomplish a variety of tasks simulating aspects of solid waste management and complete a project to develop an innovative solution to a solid waste problem. For the project, teams were tasked with selecting a specific material that is currently wasted. They conduct research and meet with experts in the field to find out how this material is currently handled. Based on their research, teams design an innovative solution to improve how the material is managed, while also considering feasibility of the solution. Teams then present their solution to experts and stakeholders to receive feedback and use this feedback to improve upon their solution.

While KCI may not be experts in robotics, we are experts in innovative waste solutions. A local FLL team based at Robles Elementary School in

Tampa reached out to KCI's Director of Operations and Vice Chair of SWANA Collection and Transfer Committee, Don Ross, who met with them to discuss their research project challenge: finding new end of life solutions for 6-pack rings and banana peels. As a result of that successful workshop, the Suncoast FLL asked



representatives from KCI to be judges at their regional championship. KCI would bring professional insight for evaluating the solid waste solutions the teams were presenting.

Jeux Brown and Ryan Graunke jumped at the opportunity to be judges and see the work these teams accomplished. They were blown away by the amount of work these children put into an extracurricular project and the ingenuity of their solutions. One of the standout projects was a team that met with a local MRF operator, equipment companies, and County solid waste staff to present their idea of using a glass imploder as a more effective

method of crushing and removing glass from single-stream recyclables. The operator was so impressed that they are considering using an imploder at their MRF. Another impressive project was by a team that designed a compostable replacement to K-cups using pressed banyan tree leaves; they have even applied for a patent and are working with a factory in India to produce these. Other standouts included a team using ground-up, discarded tennis balls as a substrate for artificial turf and a team designing an underwater robot to remove ocean litter.

It gives us all great hope for the future to see such impressive young people working to solve many of our solid waste problems. Find a FIRST LEGO League near you and get involved. These children are the future of our industry!

For more information, visit www.usfirst.org/roboticsprograms/fll.

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