

Waste Management brings Ecobots to 111 teams

Humble ISD sent 111 elementary school teams to the annual All-Earth EcoBot Challenge, a regional event hosted by the Education Foundation of Harris County. Students work in teams to build and program robots that accomplish a pre-specified 'green,' or ecologically friendly, task. Each challenge provides students with fundamental skills applicable to any profession. Douglas Kleiner, CEO of the Education Foundation of Harris County, said, "The Challenge 'missions' tie directly to the real-world workforce and workplace in our region – exciting the kids about their futures, here in Texas, even as they experience first-hand how useful and applicable knowledge is and how good they are at manipulating."

About 500 students in grades 5-8 participated in this year's Ecobot Challenge. This was possible thanks to a \$150,000 donation from Waste Management. Alison Pierce, Humble ISD's Elementary Science Coordinator, said, "Humble ISD offers one of the largest elementary robotics programs in the state. This opportunity for students to engage in engineering and programming would not be possible without the generous and ongoing donations by Waste Management."



Pine Forest Elementary fifth graders Lorrie Pritchett, Tyler Smith and Robert Trujillo showcase their robot during the All-Earth EcoBot Challenge at Atascocita High School. Ecobots integrates science, math and technology.

A portion of the donation was used to purchase robot kits for each school. Teams prepare for weeks prior to competition. "Early on, students begin writing simple programs that make the robot move a certain distance, turn around, and come back home," she said. "By the time the competition rolls around, students have constructed robotic arms and added sensors to accomplish new Ecobot challenges."

The Challenge helps students understand the integration of math and science with technology. "Students use algebraic reasoning, proportions, and many forms of measurement while programming, along with their knowledge of force and motion, friction, and simple machines," Pierce said.

Ecobots, in addition to being fun, also teaches students the importance of teamwork. "This competition forces students to work with one another as a unit, Pierce said. "Students must continually come together as a team to solve a multitude of problems – some math related, some equipment design, and others logical reasoning. By assigning roles and responsibilities and practicing the art of compromise, students interact in exactly the same way adults do in the work place."

EcoBot Challenge Humble ISD Winners:

- BEMO – Elm Grove Elementary, Best Programming, Alisa Cancino, Teacher
- CIRCUIT BREAKERS – Humble Elementary, High Score, Peggy Mensik, Teacher
- NANO-BOT GEEKS – Pine Forest Elementary, High Score, Janette Ferranti, Teacher
- WALL-E – Shadow Forest Elementary, High Score, Lori Shortis, Teacher
- ROBOTIC 4 – Summerwood Elementary, Green Steward Eco-Genius, Kristin Bryan, Teacher
- EXOTOMIC – Timbers Elementary, Best Engineering, Stacey Ward, Teacher



Atascocita Springs Elementary fifth graders Tyler Kaufman and Veronica Agu watch their robot come to life.



Greentree Elementary School fifth graders Briget Shull, Ainsley Thomas, Rachel Mitchell and Lizzy Young enjoy working together on their Ecobot Challenge.