Head over wheels for Gravity CRyptonite team overcomes obstacles to create annual robot

by Samuel Teas, staff writer

It's 7:00 p.m. on any weeknight. Club members enter the build site and gather around'the whiteboard. Students begin to work on drive trains, elevators, and software. Everybody is doing something.

These students aren't playing around. These students are on the CRyptonite Robotics Team.

"The main challenge is being able to quickly come up with mechanisms and a design that can quickly and effectively complete all the tasks of the game," said Dylan Bray, senior and Student President of Robotics.

Every year, CRyptonite and dozens of other teams in the area are given a task that their robots must complete. This year, the robot, named Gravity, must be able to stack totes, plus a plastic trash can on top.

"On January 6th, when the task was announced by video, we all met in the ninth grade center," said Dr. John Muskopf, chemistry teacher and faculty sponsor. "They rolled out what the game was, what the challenge was for this year, and then the team then spent all day coming up with ideas. What's our strategy going to be? How would we play it from that strategy? What would be a possible design?"



Coming up with a strategy and a design isn't easy in itself. But the team then has to overcome countless obstacles during the building process.

"It's very hectic," Bray said. "The space we have is probably about the size of a classroom, and a lot of the time it's full of 25 or 30 people, all going around trying to build something or test something. It's noisy because we have heavy machinery, tools and equipment operating in the back room."

As the one in charge of this cramped build site, Bray has a big responsibility on his hands.

"I have to motivate them to continue building the robot, because it's a lot of time, and a lot of commitment, and it just requires a lot of motivation and encouragement to keep going," Bray said.

Besides building team morale, Bray is accountable for everything that occurs.

"It's really rewarding," Bray said. "It's a huge learning experience having something going from raw materials to something that completes a challenge."

But it's not just the robot that completes a challenge. The robot itself is a challenge, completed only through the dedication of those who build it.

"[Robotics] has that same dedication that the orchestra has, or that the football team has, or the basketball team has," Muskopf said. "That's what it takes in this club. If you wanna compete, you have to be able to be willing to put in the time and the effort and learn. That's true for all activities, and it's definitely true for robotics."





Photos courtesy of CRyptonite Robotics Team

Top: This year's robot, named Gravity, has to be able to lift and stack totes, along with a plastic trash can on top.

Left: (From left to right) Justin Maham, Tristan Hall, Libby Perego and Jessica Bayeh discuss the robot. The students and mentors had to work together to find a way for the robot to be able to complete this year's task.