

HOLY COWS

First Lego League Robotics



The St. Charles Robotics Team participates in the *FIRST* LEGO League, Challenge Division. *First* LEGO League was created 30 years ago and introduces STEM through hands-on robotics challenges.

The Holy Cows
robotics team after
competing at State

Each year in August, *First* LEGO releases that year's challenge, each centered on a theme. Each year's challenge has two components:

(1) building and programming a LEGO robot that navigates approximately 15 missions of a robot game, and (2) a research project to identify and solve a relevant real-world problem.

This year's theme is MASTERPIECE. Since the game is not released until August, we only have teaser trailers to go on. But loosely, MASTERPIECE will ask teams to imagine and innovate new ways to create and communicate art across the globe. The teaser showcases, VR, 3D printing, musical inventions and digital art. The competition is tough with no

guarantee of advancement. Teams are scored in multiple fashions, including the number of challenges their robot can successfully complete during three rounds at the table, robot design, their innovation project, and how well the team exemplifies core values.

Last year, the theme was POWERED UP. The kids were asked to create a solution to the world's energy crisis by developing or improving upon renewable power. Our kids came up with "Cow Pants." You guessed it, a way to harness the power of cow's methane gas production.

As you can see, at St. Charles Robotics, we allow the project to be kid driven. The students will democratically determine which project idea to use, and they work cooperatively on designing the robot, attachments and coding for the robot game challenges. Every student will have an active role in both the presentation and will have the experience of running the robot at the table in teams of two. Coaches are there to mediate, provide general guidance, and generally "herd cats," but the engineering is up to the team!

Last year, the team competed in three competitions beginning in late fall. Bellarmine hosted the local competition. The team advanced to Regionals at Henry M. Jackson High School in Mill Creek, and then to State (for the second year in a row) at the Amazon campus in downtown Seattle.

In the past, the practice schedule has been twice a week, after school until 4:30-5:00. There may be a couple of extra optional practices as we get closer to competition weeks.

It can be a little hard to explain, but I found watching videos of last year's challenge helpful. For more information please see:

- www.firstlegoleague.org
- <https://www.youtube.com/watch?v=ILTjo0LHZQA>. (Last years challenge)

MOST IMPORTANTLY WE HAVE FUN!! WE HOPE YOU CAN JOIN US!



**The Holy Cows
competing at the
Amazon Campus 2023**