



Build & Design

With basic prototypes completed, our build & design team reviewed our robot plans and set an ambitious goal of completing a V1 robot by the end of week 5. The subteams refined our prototypes, focused efforts on just one shooter, and completed intake and amp designs. Following the completion of field elements, we rigorously tested prototypes to increase consistency and capability, especially for the shooter. A small group also began building the robot's planned hang mechanism. By week 4, most prototypes and the superstructure were complete, and we began integration on the chassis. By completing the robot earlier than we have in previous years, we plan to give our vision & code subteams and drivers more time and practice.



Vision and Code

In early week 3, our swerve drive team completed both swerve chassis, and we are now using them! Our vision and code teams have been working together to create an autonomous navigation system. With use of AprilTags, the chassis can go to any point on the field, avoiding field elements and other obstacles. The team also worked on improving the swerve module code to allow for hot swapping. The vision team's goal is to complete object detection by week 5.



Workshops



We also ran a set of workshops over this time period. CAD lead Lauren W. and student mentor Xavier M. led a CAD workshop on the 23rd of January where they led visualization exercises, taught how to make 2D Sketches, and performed extrudes and revolves to make sketches 3D. At the end of the workshop they demonstrated putting parts together in assemblies. Marketing and communications lead Roham A. also led a graphic design workshop to work on our new pin designs to connect with our new brand and this year's challenge.

Our code lead Arjun B. ran two workshops for code. On the 20th he explained commandbase and the organization system that our team uses. He also taught attendees how to write code for the robot, and work with the subsystem organization. His next workshop on the 27th was about Git where we learned about branches, commits, and merging (especially when there were conflicts). We also wrote our own pull request at the end of the workshop. Student mentor Logan M. and Arjun B. also brought our code team up to speed on how our code system works on Feb 2nd.

KitBot



Our Kitbot team, composed of new members, made huge progress over the last 2 weeks. They completed building the KitBot, wired all the electronics, finished the code and successfully shot a NOTE into the SPEAKER. On days where parts were being cut in the CNC, they began working on team spirit plans for the San Francisco and Monterey Bay regionals. They are currently fine tuning parts of the robot, and Sean D. is also leading the design of a climb mechanism for the Kitbot. We plan to use the KitBot to practice with our main robot once it is complete.

Spirit

Traditionally we have spent the last 2 weeks leading up to the competition to ensure our spirit items are in good condition, but this year we need to make new items for the new brand. When not working on the Kitbot, members worked on creating new letter cut outs and star origami. We also brainstormed cheers, the most popular of which was Pooja P's "Antares, you're a star".



MarCom & Web Development

After speaking with our previous vendor, T-shirt Fever, and collecting sizes and nicknames from our team, our marketing and communications team designed and ordered nearly 100 sweatshirts for our team. They also selected the materials and colors for the T-shirts, finalized the numbers and sizes, and are designing T-shirts in the following week.

After weeks of tedious work, website manager Alisha F. and marketing and communications mentor Sita V. fixed a major bug on the website, and rebranded the website with the new Antares colors. Alisha is also planning a web development workshop for week 6 where we can brainstorm ways to improve our website.

Inventory

After weeks of planning and organizing, inventory manager Zoya K. unveiled a new inventory system. With help from mentors Baxter S. and Rohit K., the inventory system is now organized in our school's new Innovation Hub; boxes are color-coded, and the entire system has a fully digital catalog.



Outreach



We met with members from our mentee team 9740 (Ctrl+Alt+Defeat) on the 29th of January where we answered their questions, and had senior members and mentors talk with them. Our fabrication lead Ruhi B. also CNC'ed parts they designed for their robot.

More frequent updates can be found on the [Antares Instagram](#).