



ENGINEERING A BRIGHTER FUTURE

TEAM NEWSLETTER



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OUTREACH INITIATIVES

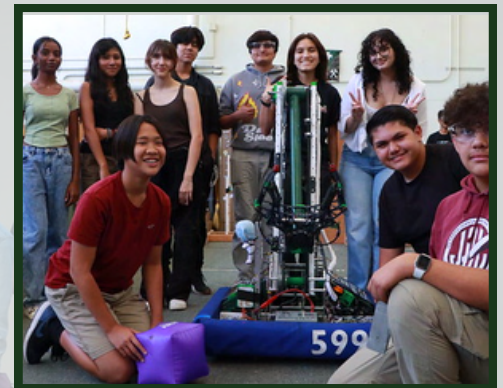
BUILDING FRC ROBOTS

BUILDING VEX ROBOTS

PODCAST RELEASE

FIRST ISSUE!

Welcome to our first issue for the 2023-2024 school year.



This summer, the Robodox has been busy building and hustling. We ambitiously taken on three main outreach programs to lead, building two new robots, and have increased our stem footprint online. Team 599 is proud to share to all our supporters on our summer accomplishments. Enjoy reading below to get an inside glimpse!

OUTREACH INITIATIVES

WHO ROCKS, DOX ROCKS



Team 599 led the development of several outreach opportunities, targeted toward children Tk-12, which were completely free of charge to our students. This includes our online Philippines Program, Pals Camp, VEX IQ, and attending the Society for Science Fair.

WHO ROCKS, DOX ROCKS

DOX TALKS: PHILLIPPINES

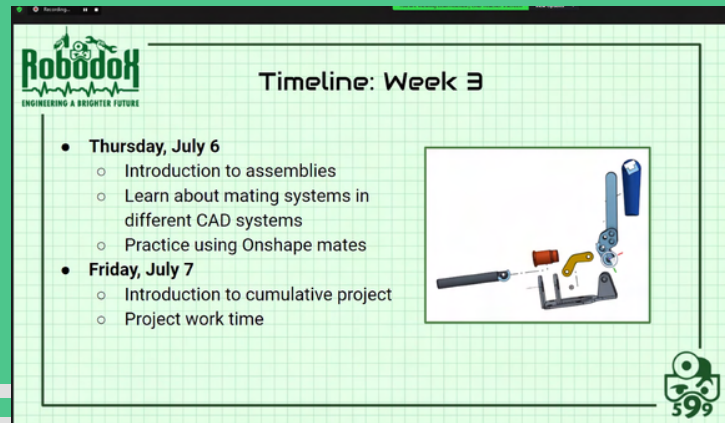


WHAT IS IT?

In this special edition of Dox Talks, we offer a 4-week summer initiative that teaches STEM skills such as programming and CAD (Computer-Aided Design) completely online to TK-12 students in the Philippines.

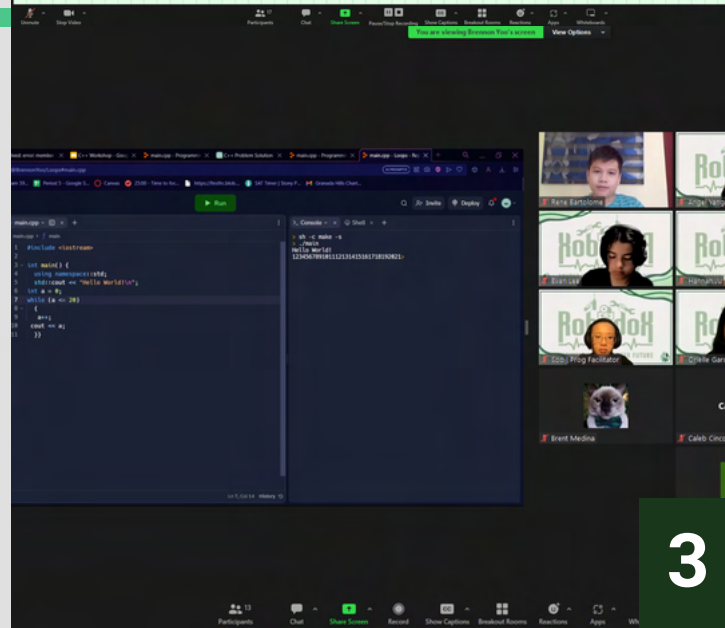
WHAT DO WE DO?

- Organized biweekly workshops over zoom (eight sessions in one month)
- Actively engaged students through one-on-one mentoring, kahoots, educational games
- Students were given and successfully completed projects such as programming short games or cadding an object



WHAT DID WE ACCOMPLISH?

Students who were hesitant at first to participate became more enthusiastic as they grasped the concepts. They successfully applied what they learned in their individual projects, demonstrating a deeper understanding of CAD and programming. Besides using Google Slides for lectures, our student teachers also incorporated tools such as PearDeck, Kahoots, Blooklets, and popcorn-style participation to transform the learning atmosphere to be more engaging and enjoyable for all.



PALS SUMMER CAMP



SPREADING STEM

The PALs Camp was an opportunity for our team to inspire and educate children in our community about the world of robotics using the strategies of FLL. In the duration of six weeks and about 20 kids per lesson, the team has taught kids how to design, build, program, and drive miniature robots

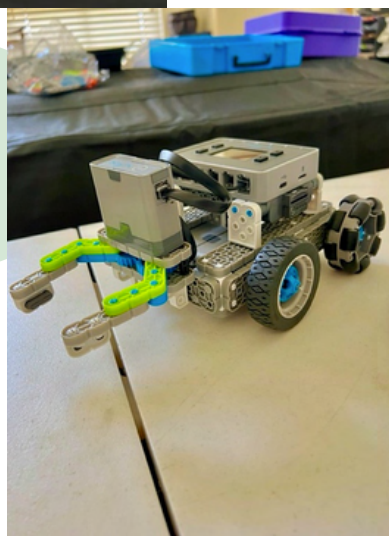
OUR SUCCESS

For each session, we utilized FLL kits which allows elementary and middle school students to develop small robots using legos. We created groups of 3-4 with an assigned student mentor to guide them through the process of construction and using different tools. At the end, students learned how to program their completed projects such as a car or a truck and then would participate in a competition where they would have to drive their new creations through an obstacle course.

VEX IQ OUTREACH

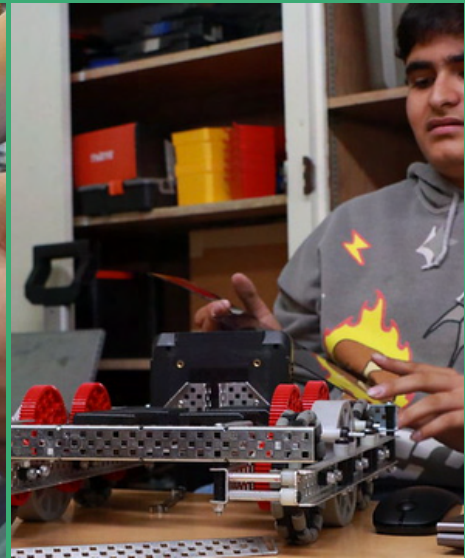
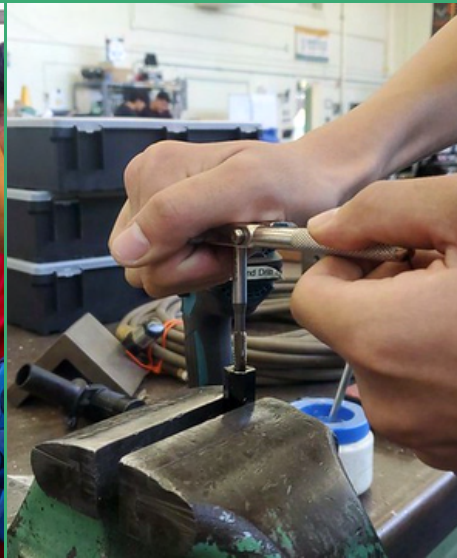
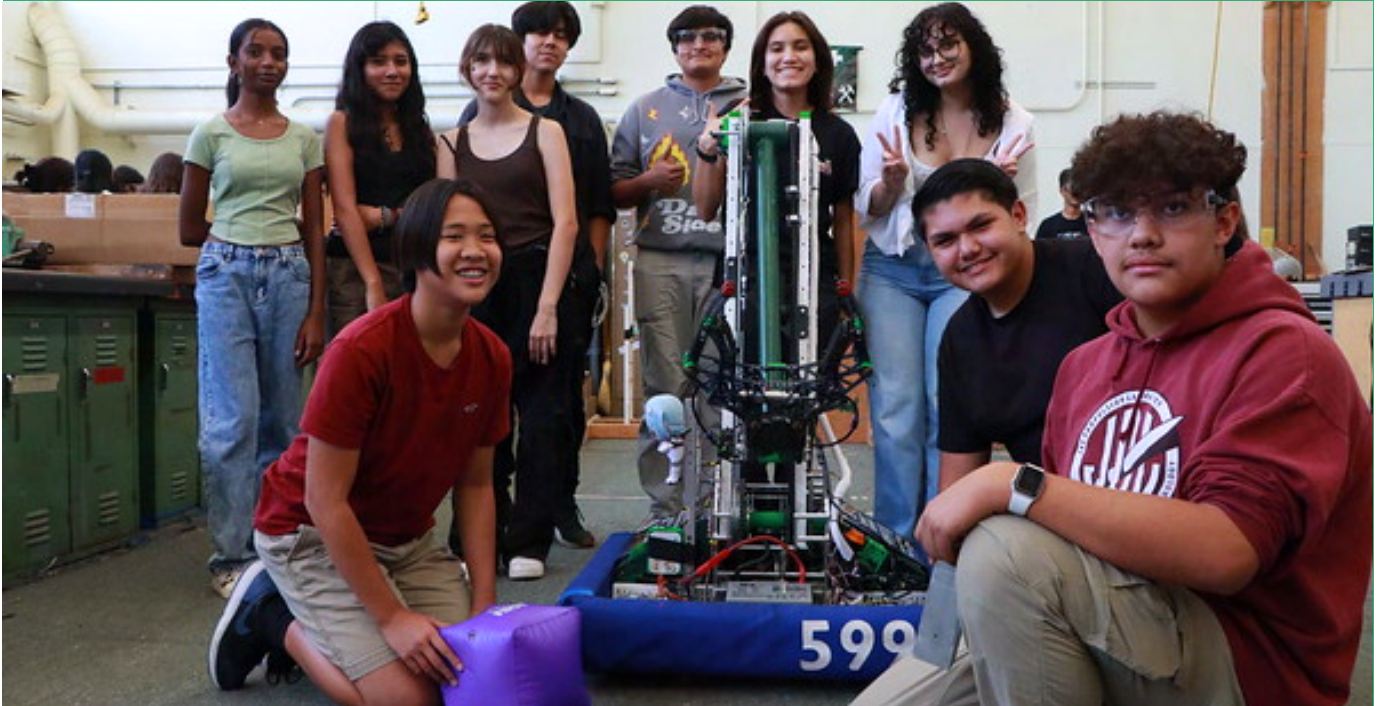
Our VEX IQ Outreach initiative helped local elementary and middle school VEX teams excel in their competitions and advance their engineering skills.

Starting this summer, the team has been collaborating with team Griffin 51518A, a local elementary VEX IQ team. The team also extended their support by assisting bot building processes in preparation for 2023's yearly VEX IQ game, Full Volume.



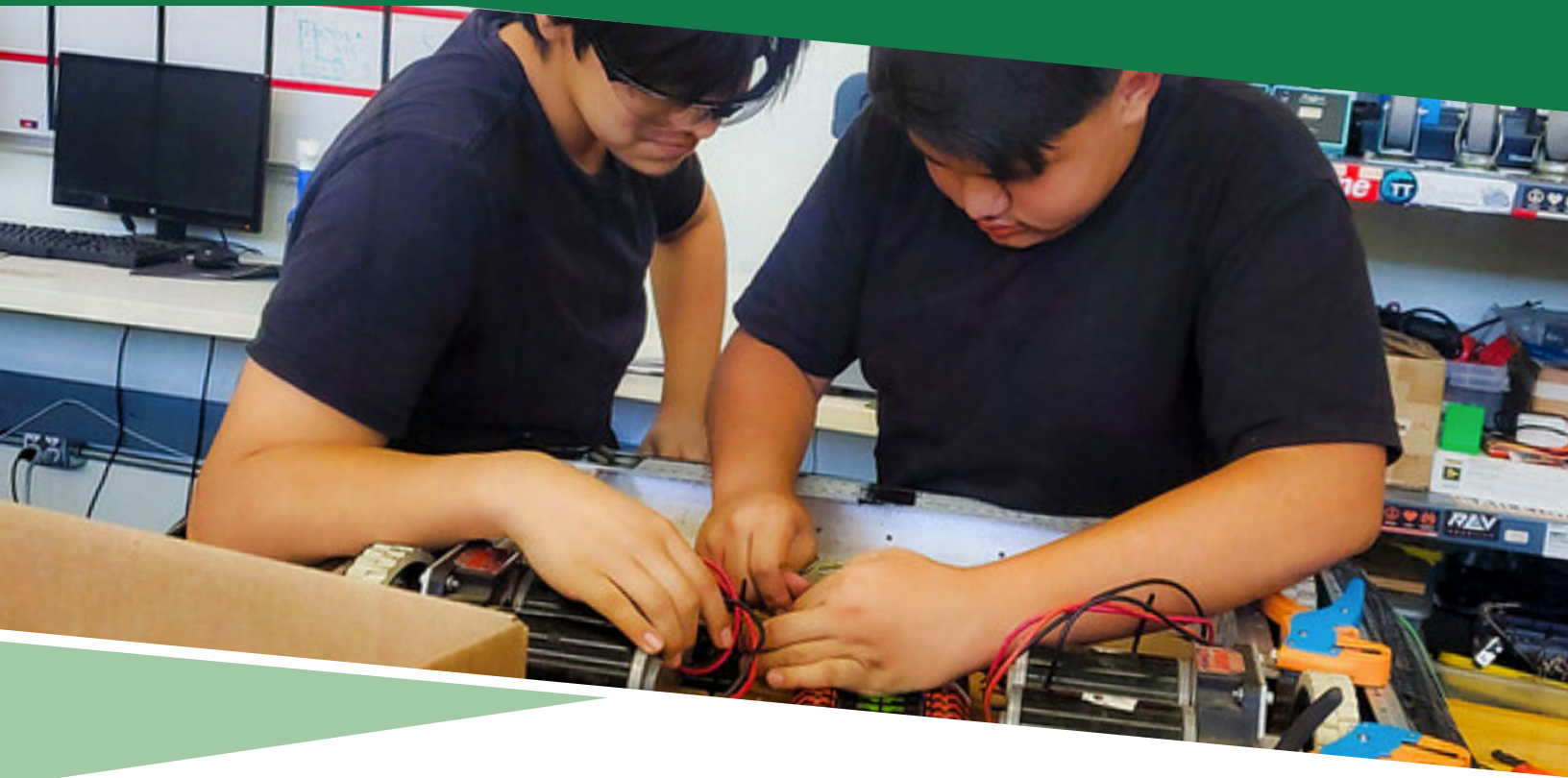
FRC & VEX ROBOTS

WHO ROCKS, DOX ROCKS

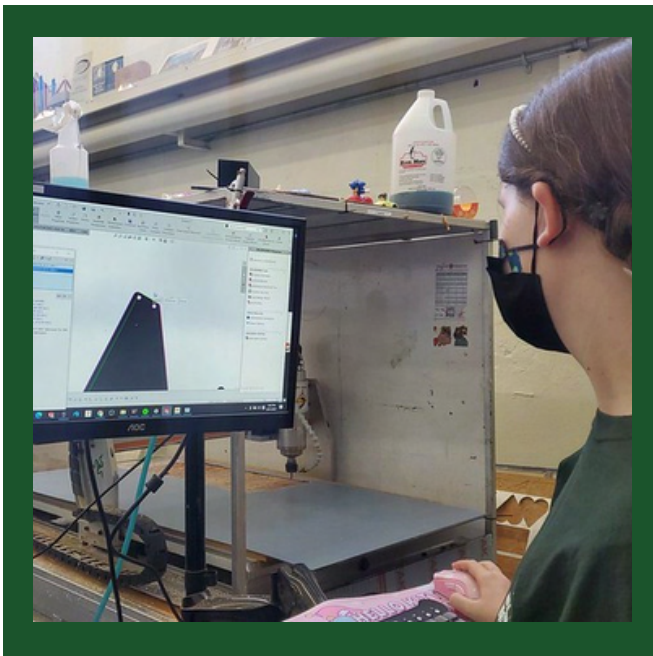


In preparation for FRC's off season competitions, the team was able to accomplish their final designs plans for the new robot, begin CAD (computer aided design), and allow this year's rookies to have hands on training. While our VEX team tirelessly developed a brand new robot and began strategizing for their round year competitions.

WHO ROCKS, DOX ROCKS



GETTING READY FOR FRC



Aside from our seasonal competitions, FRC also participates in a number of off-season competitions such as “Tidal Tumble” and “So Cal Showdown”. We plan to engineer a brand new robot in order to gain more practice and expertise.

Over summer, our CAD (Computer-aided design) members are working on designing a 3D model of the bot. Additionally, we are using last year’s robot “Carter the Cardiologist” for off-season comps as well and are currently working to improve its programming code as well as its engineering design.

NEW VEX ROBOT

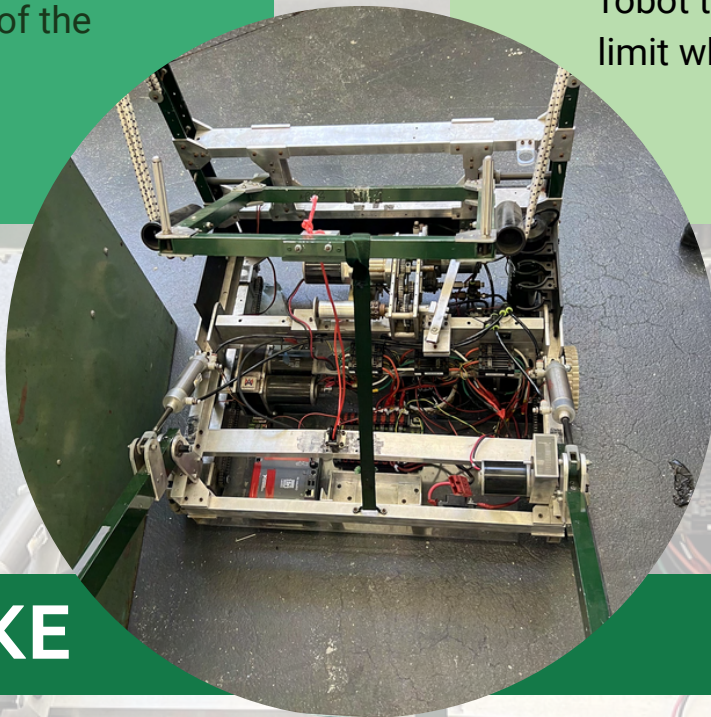
Below, are all the major components of VEX's new robot for the upcoming competition season.

DRIVE BASE

The robot consists of a 44-watt green motor drive base, with a gear ratio of 3:7 and a flex wheel center wheel to assist in the control of the robot.

INTAKE

The intake is a double rubber band roller chained together which will passively expand as the match starts, this allows the robot to stay within our 18-inch limit whilst also intaking triballs during the match.



OUTTAKE

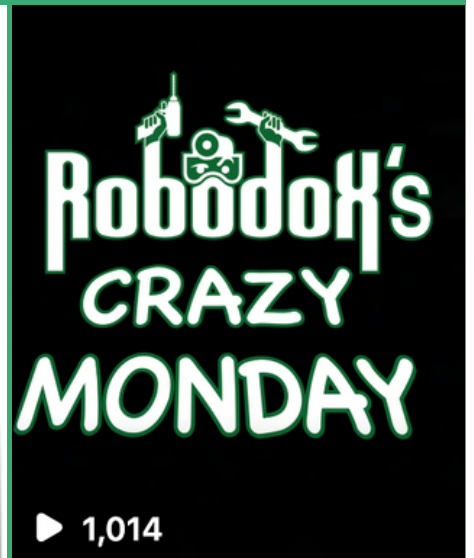
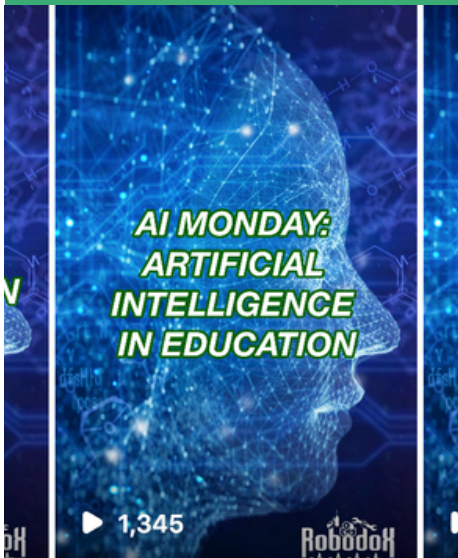
The shooter is a catapult which allows us to save on wattage for our climb while also giving us the ability to intake and shoot with ease.

CLIMB

The team plans to utilize a high torque gear ratio with 2 motors to extend the robot's climb and lift. It will also have an 8-bar lift using a passive locking claw at the top of it. This climb design will hopefully allow us to reach as high as elevation tier F or even G which is very good for us."

SPREADING STEM ONLINE

WHO ROCKS, DOX ROCKS



Besides the team's array of in person outreach programs we provide to the community, the Dox aims to spread our knowledge and experience of STEM nationally to Tk-12 kids through establishing the "Dose of the Dox" Podcast, educational videos, and etc.

WHO ROCKS, DOX ROCKS



A DOSE OF THE DOX

Over the summer, our team released our first ever podcast, "A Dose of the Dox". Over the course of 5 weeks, we released a weekly short 2-3 minutes episode on a array of topics such as an introduction to Team 599, what is FRC, what is VEX, and a special episode where our mentor gave insightful advice on paving a path in STEM.

WHY WE STARTED IT?

We established this podcast in hopes of exposing more kids to the STEM world and to create an online educational platform where kids can learn a variety of topics from how to join a robotics team, what is mechanical engineering, basics of code, and etc. In the near future, we aim to share more of about the team's personal projects such as our Pine Needle Bot and Rumble in the Jungle Robotics Competition in order to inspire kids to get involved in their community.

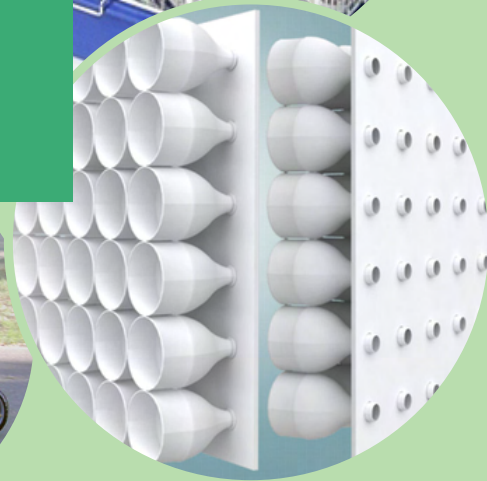




CRAZIEST INVENTION SERIES

Over the course of 8 weeks, the Robodox introduced a new series where we talked about out of the world inventions in a short 2-3 minutes video. We covered a wide range of inventions such as those AI inventions, environmental robots, and even those that assisted animals.

This not only exposed our audience to different aspects of the invention process but offers a variety of career oriented skills for our Dox members to learn such as video editing, researching, script writing, and presentational skills.



FUTURE PLANS

As we amassed over 5,000 views on our information videos so far, we plan to grow out content base to different branches of STEM such as kid engineers, the world's greatest's inventions, technology in art, famous inventors, women in STEM, etc.

THANKS FOR READING!

**FOLLOW OUR SOCIALS AND
STAY UP TO DATE!**

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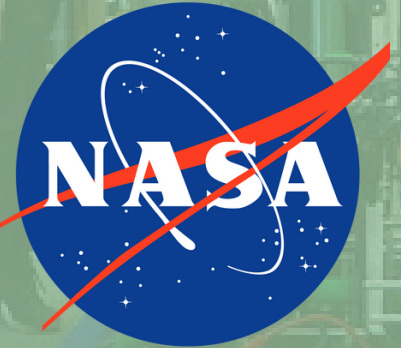


@ROBODOX599

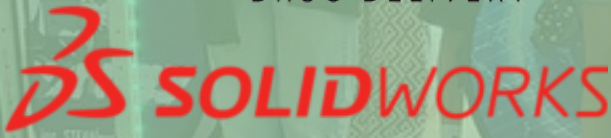
WEBSITE

[HTTP://THERODOX.ORG/](http://therobodox.org/)

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