



TEAM #17505C

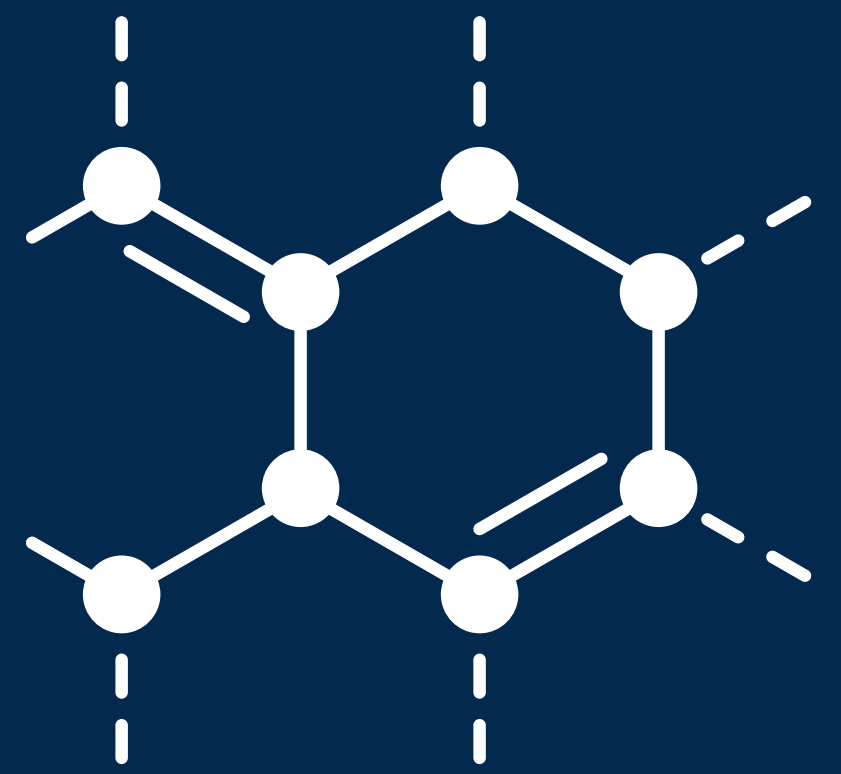
FORT WORTH, TX, USA

**VEEX CAREER
READINESS FOR
CHEMICAL
ENGINEERING**

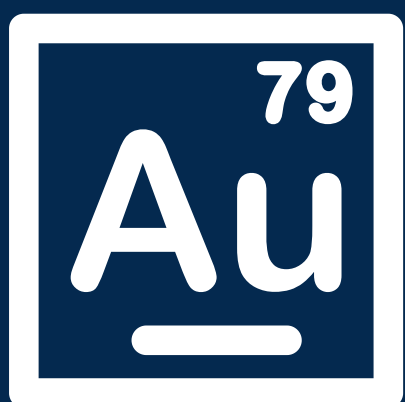
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WHY CHEMICAL ENGINEERING?



We chose Chemical Engineering because people in this career are able to ensure the quality of products being manufactured, whether that be beauty or food products. They are also in charge of developing and researching the medicine we see today.



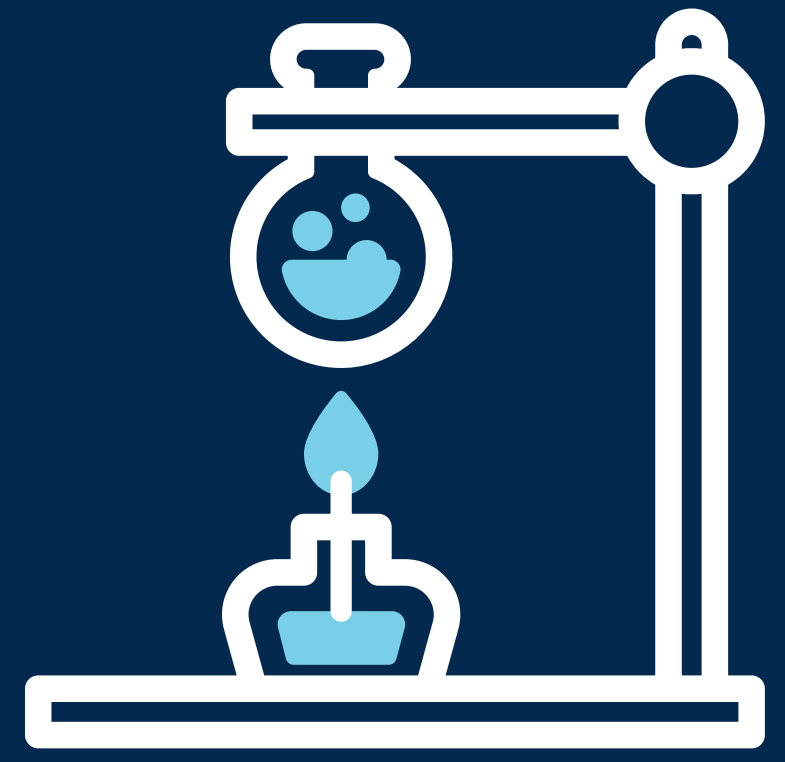
CHEMICAL ENGINEERS DESIGN PROCESS



From speaking with Chemical Engineer, Christopher Lugo, CIH, CSP who works as a Senior Industrial Hygienist at Tesla, the design process they use depends on what type of job you pursue afterwards, so some jobs require more designing than others.



CHEMICAL ENGINEERS DESIGN PROCESS



Generally though there is still brainstorming for when trying to come up with a solution for the problem. A lot of it is improving old products like cars and processes making them safer or just more functional.



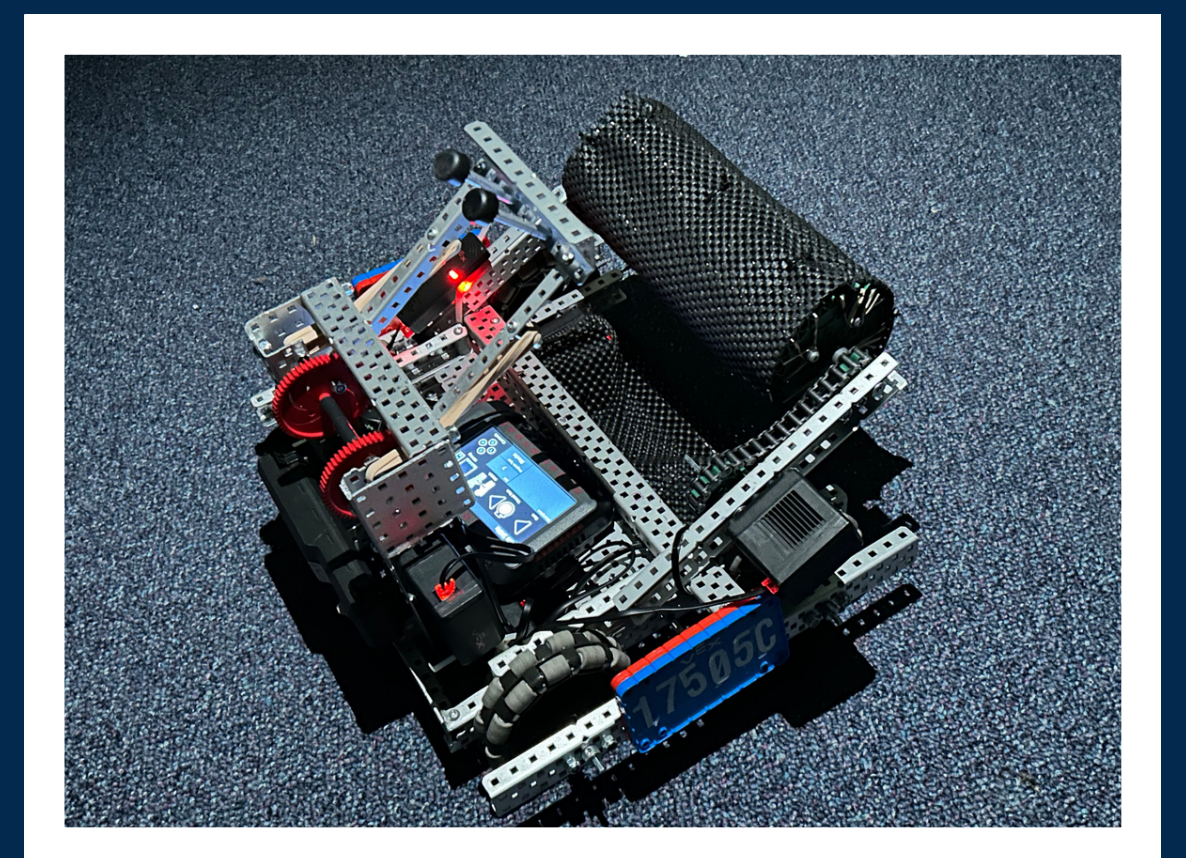
OUR ENGINEERING DESIGN PROCESS



First we define what the problem/goal is for the season, then we do some light brainstorming to just get the ideas flowing in. Once we have something solid we start building the chassis, test it and if it functions correctly we move on to designing the intake and outtake. We do some more testing and fix problems we stumble upon before the day of the competition.



Image of the Robot we made with the engineering design process





SIMILARITIES AND DIFFERENCES

Some of the similarities we noticed while looking over our design processes, were how both brainstorm and build off of previously designed products and methods. In Robotics although we do start from scratch, every robot is built using the same techniques just with some tweaks. And in both Chemical engineering and Robotics, the engineer also has to test solutions to make sure they actually fix the problem at hand.





RESOURCES

- “Design in Chemical Engineering.” Engineering Design, www.mcgill.ca/engineeringdesign/step-step-design-process/engineering-design-other-disciplines/design-chemical-engineering. Accessed 29 Jan. 2024.
- “Chemical Engineering.” American Chemical Society, www.acs.org/careers/chemical-sciences/areas/chemical-engineering.html#:~:text=The%20main%20role%20of%20chemical.
- Lugo, Christopher. Interview. Conducted by Jasmin Martinez and Luna Bocanegra. 25 January 2024.

Images

- “Chemical Engineering Bachelor’s Program.” Stevens Institute of Technology, www.stevens.edu/program/chemical-engineering-bachelor-degree. Accessed 29 Jan. 2024.

