



Denfeld Nation Automation  
FIRST Robotics Team 4009  
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Duluth, MN 55807

January 14th, 2023

### Denfeld Nation Automation (DNA) Week One Update

On behalf of DNA team 4009, this is the first build season update to keep our supporters apprised of our season's progress. In the first week of the build season, our team has been busy designing the robot for this year's challenge, CHARGED UP Presented by Haas.

During the first week of build season the build sub-team has been working hard to complete the prototyping stage of our robot. The prototype involves a manipulator that will allow us to pick up cones and cubes in the challenge. The Computer-Aided-Design (CAD) sub-team has been working together with our build sub-team designing the manipulator, as well as the support for our manipulator arm. The programming sub-team has been working on code to detect AprilTag visual targets which are a major part of the game this year. In addition, they have also been working on the basic elements of code for this year's robot. Our field build sub-team worked on the scoring grid of the game which will allow our drive team to practice on game pieces until we get the ARC (Arrowhead Robotics Coalition) field up and running. The business sub-team is collaborating with teams 5690 Esko Subzero Robotics and 2512 Duluth East Daredevils to make welcome posters for the teams attending the Double DECCer regional.

We are very excited to be in the 2023 build season! In order to keep up with our progress, make sure to check out our social media sites. If you would prefer not to receive these emails please let us know or if anyone else in your company should be getting them.

Facebook- Denfeld Nation Automation 4009

Website- <https://denfeldrobotics4009.org/>

Instagram- @dna4009

Thank you again for your support this year! Mark your calendars to see us at our competition on March 3rd and 4th at the DECC.



**ROBOTICS IS IN OUR BLOOD**

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