Warrior Works at Nauset Schools is a collaboration between MIT Beaver Works and the Nauset Public Schools dedicated to increasing access to quality collaborative problem solving educational opportunity for Nauset students.

Do you remember the announcement at the Pep Rally acknowledging the students who programmed and raced an autonomous car last summer?

Starting this January, we have three exciting opportunities to offer to all students and staff. These opportunities are delivered in two parts.

1. An online course from January to May through the MIT EDx platform to learn the foundational materials for each course. The online courses are supported with online collaboration using Piazza and lab access to the resources in the Warrior Works / MIT Beaver Works prototype 21st century learning lab in B206. This will not interfere with your regular course offerings.

2. The second part is a hands on experience this summer putting your online learning to use.

The three programs under consideration are:

**Autonomous RaceCar**

Beaver Works Summer Institute will offer a team of Nauset students, with our own MIT-designed RACECARs (Rapid Autonomous Complex Environment Competing Ackermann steeRing) robot. The opportunity is to explore the broad spectrum of research in autonomy, learn to collaborate, and demonstrate fast, autonomous navigation in a Mini Grand Prix to Move... Explore... Learn...Race!
**Autonomous Air Vehicle**
Beaver Works Summer Institute will offer a team of Nauset students the opportunity to explore some new areas of research and to design their own autonomous capabilities for UAVs (unmanned aerial vehicles). The students will work in teams to develop algorithms for deployment to our commercial quadrotors, the AR Drone 2.0. They will use the Robotics Operating System (ROS), various open-source libraries, and custom algorithms to program the quadrotors.

![Autonomous Air Vehicle Racing](image)

**Autonomous Cognitive Assistance (Cog*Works)**
Beaver Works Summer Institute will offer a team of Nauset students a chance to learn and use state-of-the-art machine learning tools in a program called Cog*Works: Build your own Cognitive Assistant. The program will guide students in learning and applying the foundational technologies of artificial intelligence for building cognitive assistants. Teams of students will leverage professional cognition services and open-source tools in conjunction with their own machine learning tools to develop cognitive systems.

![Autonomous Cognitive Assistant](image)

Interested students should follow this link [Link to Google Form](https://docs.google.com/forms) to indicate which program(s) they are interested in and provide contact information.

Based on student interest, we will offer the most popular program(s). Our only requirement is a commitment to try. We’ll work with you on helping to develop necessary skills.

Juniors who complete the online course also have an opportunity to apply to attend the MIT Beaver Works Summer Institute [https://bwsix.mit.edu](https://bwsix.mit.edu)