DRONES IN SCHOOL

MULTIGP® STEM ALLIANCE MEMBER

6-12 Program Overview

Drone Racing that is Safe & Scalable

The MultiGP STEM Alliance 6-12 program is called Drones in School. Drones in School was designed by classroom educators and administrators who see value in developing engagement opportunities that involve hands-on learning for students. Drones in School utilizes small-scale drone technology, allowing students to develop technical skills through a process that is safe and scalable for the classroom environment. The real world application of knowledge to solve problems, provides a skillset needed in any career field.

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A Drones in School Team

Project Manager

Graphic Designer

Manufacturing Engineer

Design Engineer

Marketing Coordinator

Drone Technician

Drones in School teams consists of three to six students that fill six job roles. While the team works collaboratively throughout the season, each role is responsible for specific deliverables relevant to the competition.

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The Competition

1. Display Booth
2. Technical Evaluation
3. Engineering Judging
4. Video Presentation
5. Portfolio Judging
6. Racing

Drones in School teams compete in six categories. These categories provide learning opportunities for a variety of student interests. Student teams can demonstrate mastery of various learning competencies through these competition areas.

The Process

1. Plan
2. Design
3. Make
4. Test
5. Race

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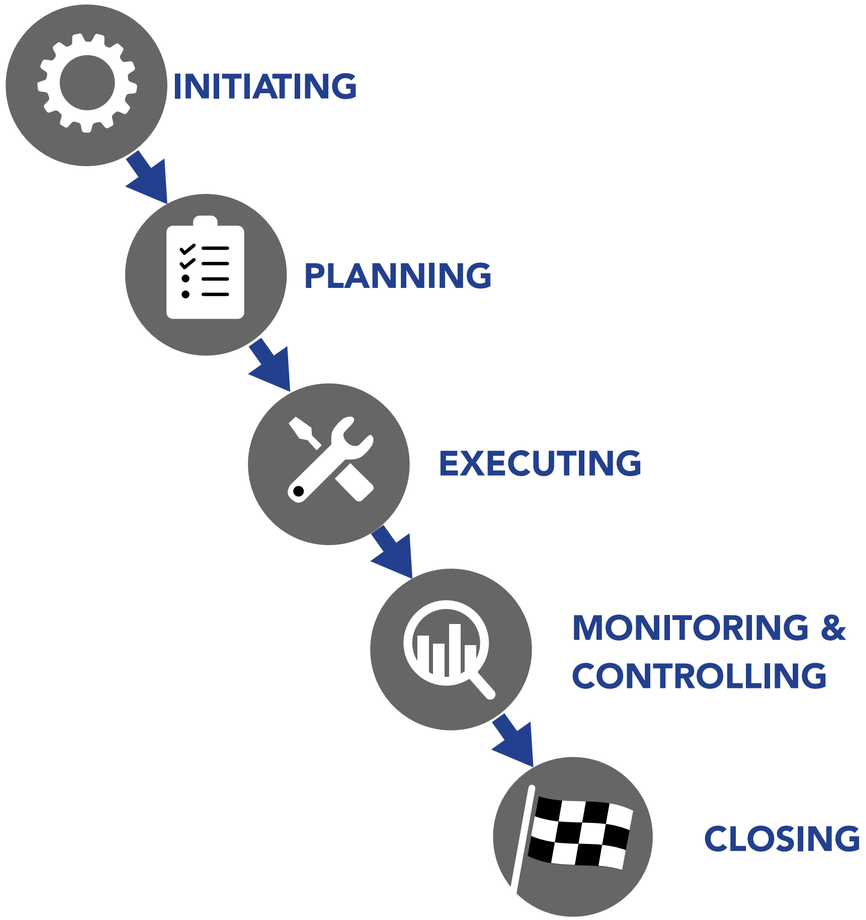
1. Plan



Students learn project management fundamentals and use best practices to self-regulate their team. Over the course of the season, students will develop valuable project management skills and consider other certifications that are transferable to various career fields.

Project Management Institute

Amateur Radio Technician License

Part 107 License

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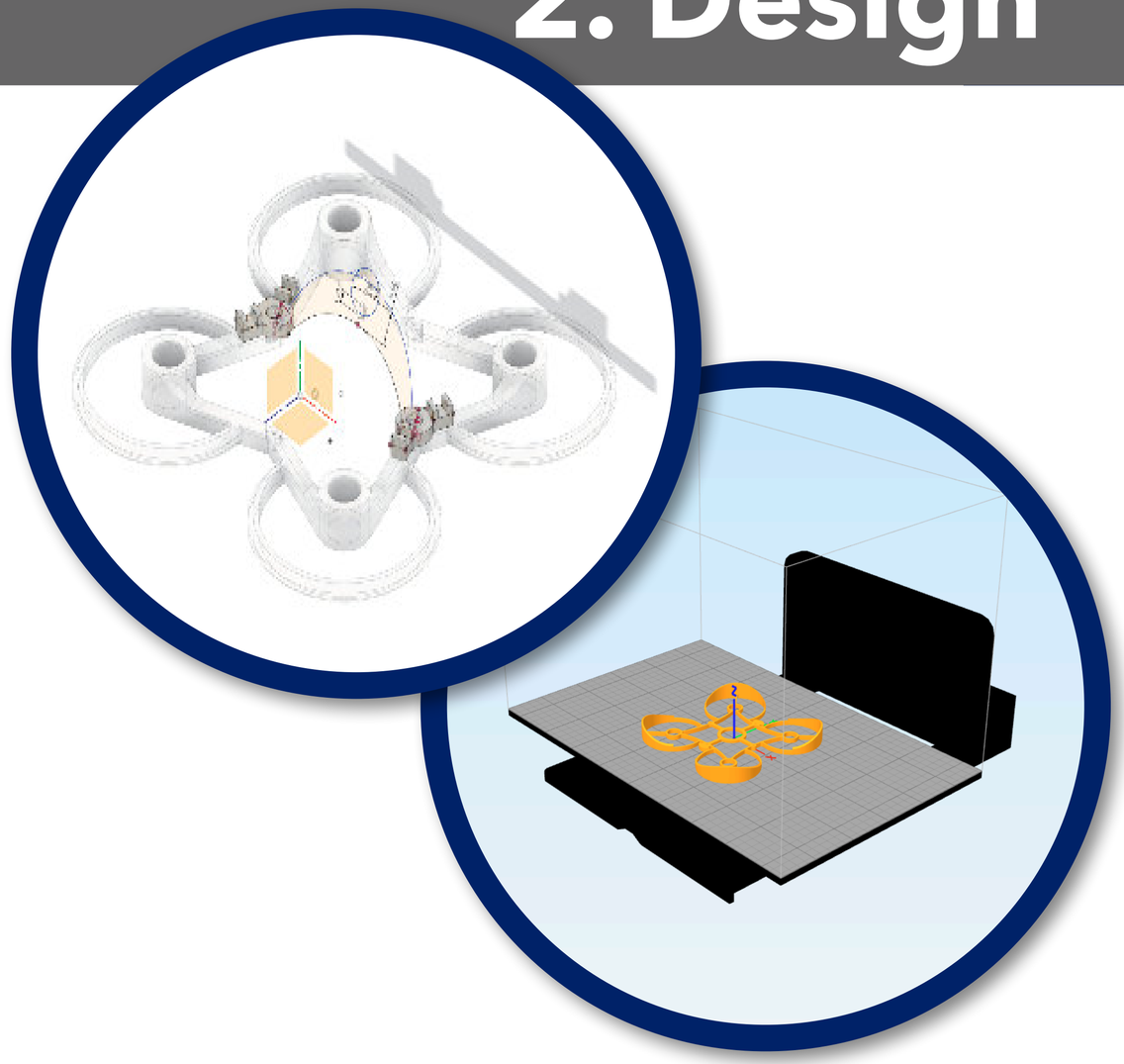
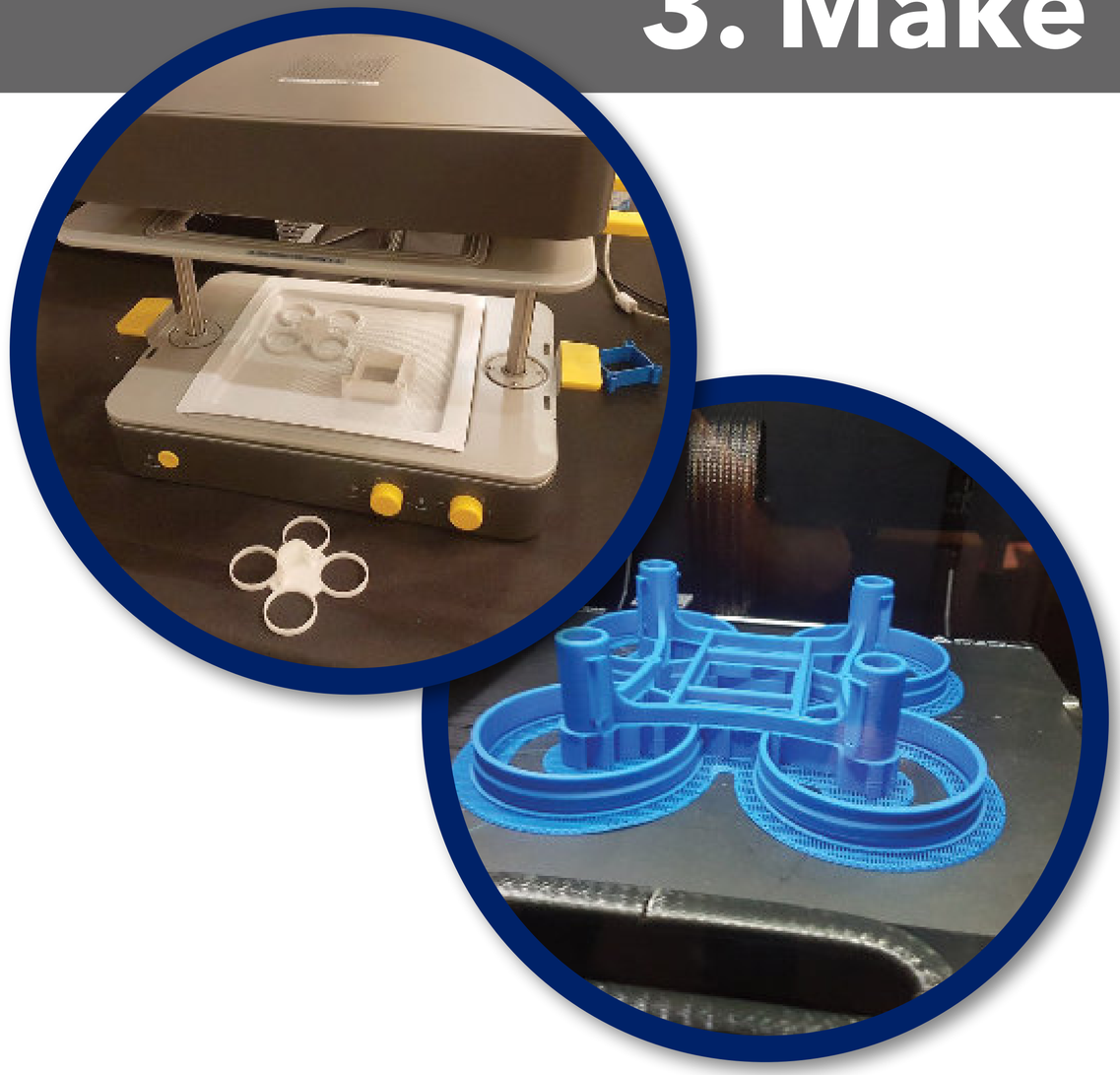
2. Design



Students use parametric modeling software to design a racing drone that meets the constraints provided for the current season. Students also learn foundational skills in graphic design and marketing while developing their own racing team brand identity and promotional materials.

3. Make



Students manufacture and assemble a racing drone using modern rapid prototyping technology. During the manufacturing process students complete and document multiple iterations until a successful prototype is ready for testing.

4. Test

Once a prototype is assembled, students analyze the design for durability, flight worthiness, and overall performance. As issues arise, students work through the design and engineering process to improve the operation of their racing drone.

5. Race

Student teams attend MultiGP STEM Alliance sanctioned race events where they can earn awards and qualify for regional and or national championship events.

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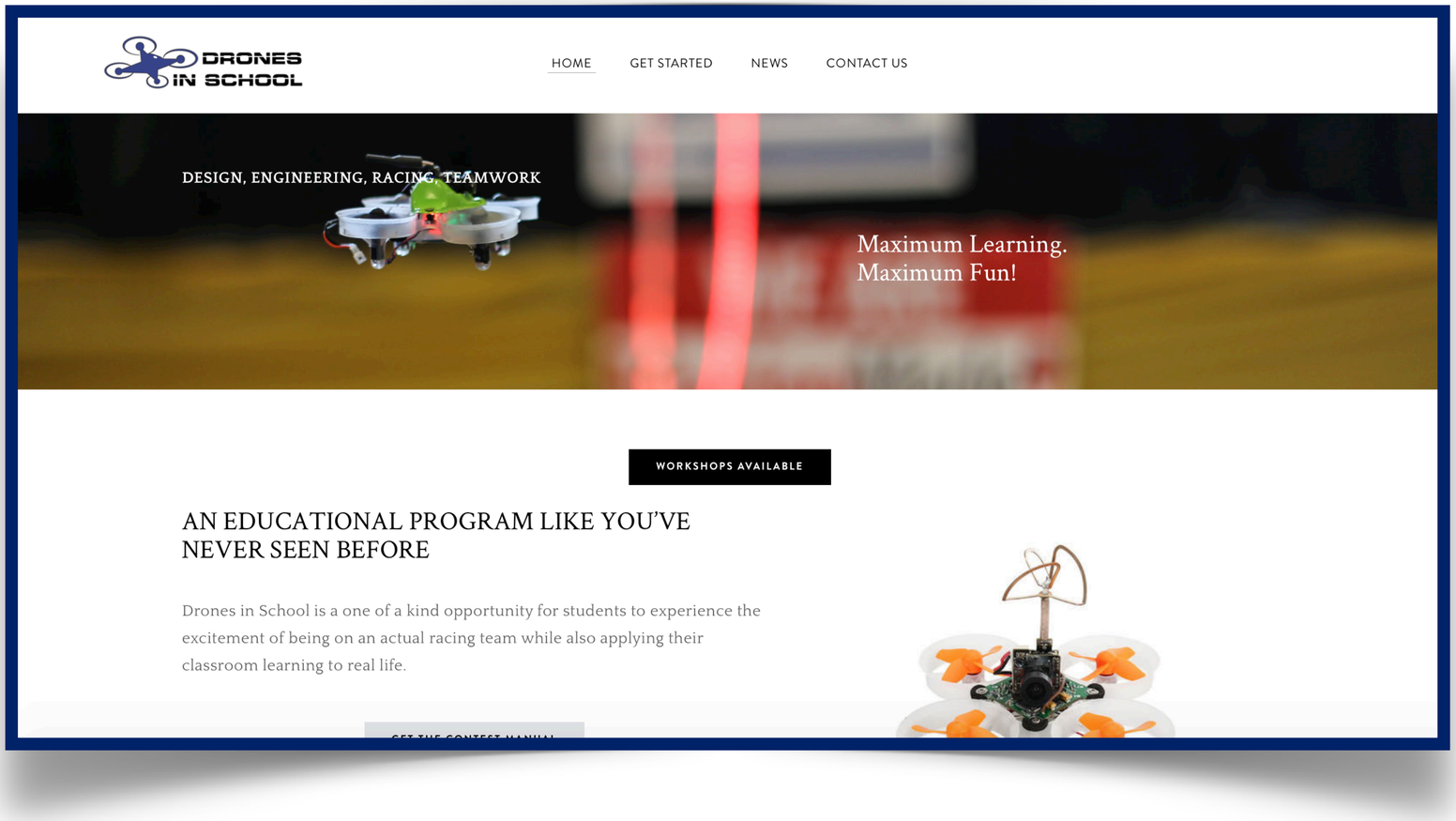
Online Resources and Curriculum



The MultiGP STEM Alliance and the 6-12 student program, Drones in School, is continually developing new resources and curriculum to assist educators in delivering a successful learning experience to their students.

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Want to learn more? Visit:

multigp.com/stem *or* dronesinschool.com