



Imagine THIS!

...as your final exam!

What is SystemsGo?

SystemsGo is an innovative hands-on high school science, technology, engineering, and mathematics (STEM) set of courses that uses project-based learning to stimulate 21st Century workplace skills in

- Design
- Development
- Testing
- Analysis
- Critical Thinking
- Cognitive Reasoning
- Problem Solving
- Innovation

Why should I have SystemsGo in my school?

- Proven, 4-year, sequenced STEM curricula
- Meets Career & Tech Ed (CTE) course objectives
- Aligns to Next Generation Science Standards (NGSS)
- Targets mastery of 21st Century Learning and Workforce Skills

SystemsGo prepares the workforce of tomorrow

- Helps develop the most valued engineers to compete in the global market
- Provides experience with industry standards of design and development
- Helps develop problem solvers and innovators in any field
- Encourages students to pursue STEM-related careers
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How does SystemsGo work in the classroom?

The foundational curricula are designed to provide important introductory information to the students, through hands-on projects and PPT modules, that promote a student's understanding of innovation, the R&D industry, and work/life skills such as design and development, testing and analysis, problem-solving, leadership, collaboration, and teamwork.

The upper level curricula guide students to design, develop, test, and analyze professional-grade, free-flight, sounding rockets for research applications.

- **Tsiolkovsky Level** students design and test vehicles to loft a one-pound payload to an apogee of one mile. (min. prerequisite—concurrent enrollment in Alg 2)
- **Oberth Level** students attempt transonic flight at speeds greater than Mach 1. (prerequisite Tsiolkovsky Level)
- **Goddard Level** students design and develop a vehicle capable of lofting a research payload between altitudes of 80,000 to 100,000-feet. (prerequisite Oberth level)

Each year's projects culminate in a state-wide, professionally supported, launch event for all SystemsGo schools.

(Curricula can be tailored to meet your specific STEM requirements.)

Do I have to be a rocket scientist to teach SystemsGo?

No. SystemsGo provides complete **CPE certified training** during the summer, and yearlong advisory support. Schools will receive full curriculum with labs, rubrics, quizzes, exams, plus lists of tools and materials needed. SystemsGo is your source for ordering specific rocket supplies and large rocket motor systems, plus provides launch support.

Learn more at www.systemsgo.org



Who is using SystemsGo?

The SystemsGo curriculum is now in high schools in Texas, New Mexico, Oregon, Utah, and Colorado, and adding new schools every year.



What are the results of integrating SystemsGo?

Documented findings from Texas Tech University Program Evaluation:

- Student ratings of the rocket program experience reach from extremely positive to near heroic levels of effectiveness.
- Students' evaluation of their experience with the program was very positive to extremely positive.
- The SystemsGo program, including its curriculum and learning effects, has a powerful and positive effect on students.
- SystemsGo is meeting and exceeding its stated objectives.
- 65% of students have continued on to study engineering in college. Many are in careers at major space related companies such as NASA, United Space Alliance, and Space-X.

"This is a program that is so completely effective across the breadth and depth of what it is trying to do. It is clearly paying off, and those involved deserve commendation for that. This evaluator believes the best reward should be additional resources for program expansion and replication."

Hansel Burley, Ph.D., Texas Tech University

What are industry, government, and education leaders saying about SystemsGo?

"I have first-hand experience with the excellent students produced out of this program. This program is a visible example of successful efforts to improve education and develop the workforce."

Helen Reed, Ph.D., Dept. Head of Aerospace Engineering, Texas A&M University

"...the most advanced high school rocketry program in the nation."

Former U.S. Congressman Lamar Smith

"I can confidently state that the SystemsGo rocket program is the most amazing high school high-tech experience I have seen."

Steven Collicott, Ph.D., Prof. of Aeronautics/Astronautics, Purdue University

"The hands-on experience designing, building, and testing rockets is precisely the kind of experience SpaceX seeks in its employees. We have hired students who are products of the SystemsGo program, which has given us the ability to witness firsthand the program's success in preparing students for leadership in this industry."

Gwynne Shotwell, President & COO, SpaceX Technologies

"Your work in supporting the students of tomorrow is unsurpassed in the ranks of high school science teachers. It has been said, 'The launch of a rocket does not begin at the launch pad, but rather at the classroom door.' You are demonstrating the meaning of that statement to all who observe your program."

Art Stephenson, Former NASA Administrator for Education

Who supports SystemsGo?

SystemsGo is supported by a consortium of leaders in government, business, education, the public and private grant industry.



SYSTEMSGO

Contact us to find out how you can get involved!

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EDUCATION IN MOTION