SIEMENS

Hour of Engineering, inspiring the next generation of engineers

Challenge

Core Problem: Many potential future engineers do not pursue STEM careers due to not understanding what engineers do or not seeing a personal connection to engineering fields.

Early Exposure Critical: It is crucial to capture students' interest in STEM early in their educational journey to prevent self-selection out of these fields; 61% of those currently in STEM careers did not have significant early exposure.

Representation Matters: Seeing women in STEM roles encourages more young women to envision themselves in those careers.

Engineering Heroes features a diverse set of engineers currently solving problems worldwide. Hour of Engineering features a diverse array of engineers in the field today.

Solution

Hour of Engineering Program: Provides free and engaging digital educational content to make engineering accessible and exciting for students and educators.

Resource Availability: Offers extensive resources, including teacher guides, learning objectives, and teaching materials for different durations—ranging from single to multiple hours of content.

Design Challenges: Engages students with real-world engineering problems, such as the Fidget Spinner Design Challenge, which incorporates elements of math, science, and engineering design principles.

70k	38k	2k
Total sessions	Total users	Avg. new monthly users

Learning Impact Outcomes

Building STEM Identity: The program focuses on developing a STEM identity among students, crucial for diversifying and expanding the future STEM workforce.

> "We have seen a positive impact on our students' learning and engagement after incorporating the Hour of Engineering program" – Breanna Becker, Saint David Catholic School, Davy, FL

21st Century Skills Development: Enhances skills like creativity, systems thinking, and collaboration, which are essential for modern engineering roles.

Alignment with Educational Standards: The learning content aligns with relevant educational standards, supporting and enhancing standard curricular goals.

Return on Investment

Educational Impact: By offering free resources, Hour of Engineering maximizes accessibility and impact without additional financial burdens on schools or teachers.

Future Workforce Preparation: Prepares a diverse range of students for future careers that may not yet exist by equipping them with adaptable and forward-thinking skills.

Sustainable Development Goals: Connects engineering challenges to broader global goals, teaching students to think about how engineering can solve significant world issues.
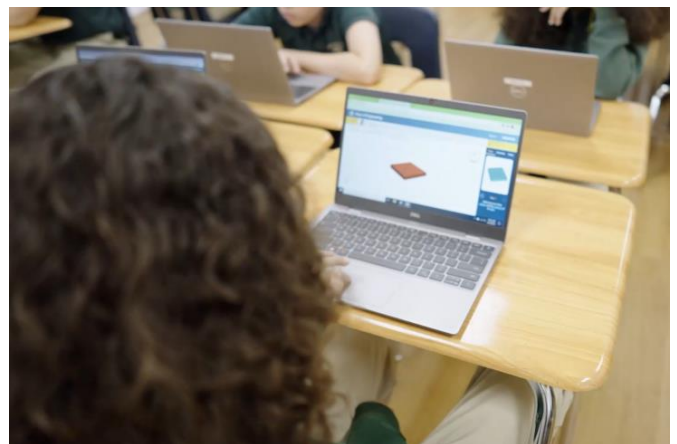
Saint David Catholic School students completed the online engineering design challenge before building their unique fidget spinner prototype.

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