

IEEE Pikes Peak Section Youth Outreach Framework

Empowering Future Engineers through Leadership, Mentorship & Hands-On Innovation





Strategic Vision

Guided by our Strategic Plan, our goal is to build a sustainable youth leadership pipeline that integrates technical education, character formation, and entrepreneurial thinking. View at: <https://r5.ieee.org/pikespeak/strategic-plan>

Key Initiatives

Program	Description	Audience
STEAM-TEAMS	Deployable Outreach Classroom Kits (DOCKs) using hands-on demos like Squishy Circuits and homopolar motors.	K-12 Students & Families
PyramidX-OS	Merges KEEN's 6Cs with John Wooden's Pyramid of Success to foster entrepreneurial and character-driven leadership.	Middle-High School
Mentorship Pipeline	Life Members → Young Professionals → University Students → K-12	Cross-generational IEEE Engagement
Cool Science Festival	Partnered STEAM event with 3,000+ attendees for public demos, mentorship, and visibility.	Public Outreach

Differentiators

-  Active Learning: Tactile, demo-based outreach for curiosity and retention
-  Scalable Model: STEAM-TEAMS kits + PyramidX-OS are replicable and modular
-  Underserved Focus: Rural and low-access youth engagement
-  Leadership Development: From technical skills to moral character growth

Key Resources (Direct URLs)

STEAM-TEAMS Planning Notes: <https://r5.ieee.org/pikespeak/steam-teams-notes>

Squishy Circuits Outreach: <https://r5.ieee.org/pikespeak/squishy-circuits>

Past Student Activities: <https://r5.ieee.org/pikespeak/student-activities>

Cool Science Festival Partnership: <https://r5.ieee.org/pikespeak/2025-Colorado-Springs-Cool-Science-Festival>

Strategic Plan Summary: <https://r5.ieee.org/pikespeak/strategic-plan>

Young Professionals: <https://r5.ieee.org/pikespeak/young-professional/>

LMAG Stories: <https://r5.ieee.org/pikespeak/stories-of-lmag-members/>

Dr. Santiago Bio: <https://r5.ieee.org/pikespeak/john-santiago/>

Vision for IEEE Alignment

Our integrated outreach model complements global IEEE initiatives such as TryEngineering, REACH, and EPICS in IEEE, while empowering local leadership and grassroots replication. We welcome opportunities to share, collaborate, and scale what works for broader IEEE adoption.