I. GRANT PROPOSAL SUMMARY SHEET

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Date

Contact Information

Organization Name: **Keystone STEM Alliance**

Address: 15 Waterloo Ave, Berwyn, PA 19312

Phone: 646.223.0826 / 267-270-2226

Website: keystonestemai.org

Year Incorporated: 2025

FEIN: 39-3589749
hari.p@keystonestemai.org

ED/CEO Name: Hari Ponugoti

ED/CEO E-mail: hello@keystonestemAi.org

Board Chair Name: Stacey Ballard

Board Chair Approval (check here): ☑

Primary Contact Name: Hari Ponugoti

Primary Contact E-mail:

Organization Information:

	Arts, Culture, Heritage	X	Education, Library		Environment, Animals
	Health		Human Services		Social Justice, Civic Engagement
	Religion		If other, please describe:		

Field/s of Interest:

- **Robotics Programs**
- **STEM Career Pathways**
- **Workforce Development**
- **Personality Development, Teamwork, Collaboration**
- **Life Skills & Leadership Development**

Mission:

To Ignite, Inspire, and Impact by empowering youth through hands-on STEM, robotics, and workforce development programs. Through community and global partnerships, we prepare future leaders for careers, service, leadership, and meaningful community impact.

Geographic Area Served *(If not all of Chester County, specify primary Chester County regions served):*

- **Tredyffrin Easttown School District**
- **Upper Mainline (Berwyn, Chesterbrook, Paoli, Devon, Wayne)**

Describe Population Served & Annual Number of People Served. **100+ (including Regular and Summer Camps)**

Annual Budget $_____215,000_____

___95____ % of budget for program expenses
___3___ % of budget for administrative expenses
___2___ % of budget for fundraising expenses
100% = total

___0____ # of Full-Time Equivalent Paid Staff
___5____ # of Board Volunteers
___10___ # of Active Non-Board Volunteers
__2500____ # of Volunteer Hours

Top 3-5 funding sources:

1. **In-Kind Sponsorships: EADEH Enterprises**
2. **Corporate Sponsorships: Isolite, Comcast, Boeing, TE Connectivity**
3. **Membership Fees: highly subsidized membership dues for students @ $365 per year**
4. **Summer Camp Income:**
5. **Foundation Grants: CCCF, AEO Foundation, Gene HaaS Foundation, Argosy Foundation**
6. **Government: DoD STEM Grant, NASA**

This grant proposal is for: ____Direct Service Programs & General Operating &/or __**X**__Capacity Building

If Capacity Building Proposal, the focus is:

	Contingency Planning		Partnerships, Collaborations		Merger, Closure
X	Mission, Vision, Strategy	**X**	Board Engagement & Leadership		Marketing, Communication
	Resource Development		Operations	**X**	Technology
	If other, please describe:				

Grant Amount Requested from the Community Foundation: $____40000_____

Proposal Summary: *(a few sentences, please)*

Strengthen instructional capacity by engaging part-time industry professionals, engineers, researchers, and university-affiliated STEM instructors.

Build organizational capacity through professional support for grant development, marketing and communications, CPA/accounting, program administration, and monitoring and evaluation.

Improve program quality and sustainability across KSA's robotics, engineering, STEM outreach, and workforce-readiness initiatives.

Establish scalable systems and measurable outcomes that reduce reliance on volunteers and support responsible organizational growth.

Position KSA for long-term impact as a professionally supported STEM nonprofit connecting students with industry, academia, and real-world career pathways.

II. GRANT PROPOSAL NARRATIVE

Provide clear, concise information in 1-3 pages. Please be brief.

1. Nonprofit's overall aims, key initiatives, key achievements & distinctiveness

Keystone STEM Alliance, Inc. is a nonprofit organization dedicated to expanding access to hands-on **STEM education, robotics, leadership development, and career-ready skills** for young people. Our aim is to help students build confidence, creativity, problem-solving abilities, and technical skills through experiential learning opportunities that connect classroom concepts with real-world applications.

Our key initiatives include robotics programs through BLAST Robotics, **STEM workshops** and **camps**, **robotics** and **innovation labs**, **community outreach**, and opportunities for students to **participate in FIRST robotics competitions**. Through these programs, students learn engineering, programming, fabrication, teamwork, communication, leadership, and project management while working on meaningful challenges.

Venturing Crew 181 is a distinctive STEM and youth leadership program developed through Keystone STEM Alliance's partnership with Scouting America, using robotics as a powerful platform to engage high-school students. The program combines hands-on robotics, engineering, and technical skill development with Scouting's established framework for leadership, teamwork, community service, and character development. This unique model creates a pathway for students to grow as both **emerging engineers and community leaders**.

During our 2025-2026 program year, Keystone STEM Alliance expanded its youth programming through robotics competitions, STEM workshops, summer camps, community events, and mentorship. BLAST Robotics earned the **Gardener Award at RampRiot 2025**, the **Rookie All-Star Award at the FIRST Mid-Atlantic Centennial Robotics Competition 2026**, and **the Rising All-Star Award at the FMA Philadelphia Event 2026**. Our **STEM Summer Camp** provided hands-on robotics experiences for students entering grades 4-9, supported by high school student counselors and mentors. The organization also strengthened relationships with **community, corporate, education, and STEM partners**.

Keystone STEM Alliance is distinctive because it combines hands-on STEM learning, competitive robotics, mentorship, leadership development, and community engagement within one youth-focused pathway. Rather than focusing only on technical instruction, our programs encourage students to become **builders, problem-solvers, mentors, and leaders**. By connecting students with experienced **mentors, volunteers, industry professionals, and authentic engineering experiences**, we seek to create lasting opportunities for young people to discover their potential and prepare for future education and careers in STEM.

2. Funding request

i. What specific needs & issues are being addressed, via what programs and services?

a. Keystone STEM Alliance (KSA) has experienced rapid growth in student participation, programming, community outreach, and partnerships during its first year. This growth has created an immediate need to strengthen both our **instructional capacity and organizational infrastructure** so that we can expand access while maintaining high-quality, safe, and measurable STEM programming.

b. The proposed capacity-building initiative addresses two interconnected needs. First, KSA seeks to expand its pool of qualified instructors and mentors by engaging **part-time industry professionals, engineers, university research scholars, graduate students, and other subject-matter experts**, including potential talent from institutions such as the University of Pennsylvania, Villanova University, Drexel University, and Penn State Great Valley. These instructors will supplement our volunteer mentors and provide students with deeper learning opportunities in robotics, mechanical and electrical engineering, CAD, programming, AI, advanced manufacturing, and emerging technologies.

c. Second, KSA needs professional organizational capacity in areas currently handled primarily by volunteers. Grant funds would support specialized services in **fund development and grant writing, marketing and communications, nonprofit accounting/CPA services, program administration, and monitoring and evaluation**. Together, these investments will strengthen programs including BLAST Robotics, STEM2Ignite outreach, summer STEM programs, Venturing Crew 181, workshops, and workforce-readiness initiatives.

i. Why is it important to fund this now?

KSA is at a critical transition point from an early-stage, predominantly volunteer-led organization to a sustainable community STEM institution. In our first year, we directly engaged more than **100 students**, reached more than **1,200 students through STEM2Ignite and other outreach activities**, and mobilized more than **40 volunteers contributing over 2,500 volunteer hours**.

This growth demonstrates demand, but continuing to scale primarily through volunteer capacity creates constraints on program quality, consistency, fundraising, administration, evaluation, and long-term sustainability.

Investment now will allow KSA to build the professional infrastructure needed **before further expansion**, rather than adding programs faster than the organization can effectively support them. It will also allow us to leverage our existing workshop, equipment, university relationships, industry partnerships, volunteer base, and community support more effectively.

ii. How will results & impact be demonstrated?

KSA will establish a capacity-building scorecard and track both **organizational outcomes and student/program outcomes**. Measures will include the number and qualifications of instructors and subject-matter experts engaged; instructional hours delivered; student participation and retention; number of workshops and programs delivered; expansion of partnerships; grant proposals submitted and funding secured; improvements in financial reporting and compliance; marketing and community reach; and implementation of consistent program evaluation processes.

For student-facing programs, KSA will use attendance records, pre/post surveys where appropriate, student and parent feedback, skills-development milestones, project completion, leadership participation, and program retention. Quarterly management reviews will assess progress against established targets, with a year-end capacity and impact report documenting accomplishments, lessons learned, and priorities for the following year.

iii. Additionally, for capacity building grant proposals:

- **How will this capacity building initiative impact your nonprofit?**

    a. The initiative will help transform KSA from a **founder- and volunteer-dependent organization into a more resilient, professionally supported nonprofit with sustainable systems for program delivery and growth**.

    b. Adding part-time technical instructors will increase instructional depth and reduce dependence on a small number of volunteers while connecting students directly with professionals and researchers working in STEM fields. Professional support in fundraising, marketing, accounting, administration, and evaluation will simultaneously strengthen the organizational systems necessary to sustain those programs.

    c. Most importantly, capacity-building funds will not simply support additional activities for one grant period. They will establish **repeatable systems, professional expertise, diversified fundraising capacity, measurable program outcomes, and a stronger instructional network** that KSA can continue leveraging in subsequent years.

- **How will this impact be demonstrated?**

    a. By the end of the initiative, KSA expects to demonstrate increased instructional capacity, a broader network of industry and academic instructors, more consistent program delivery, stronger financial and administrative controls, improved grant-development capability, enhanced communications and community visibility, and a formalized framework for measuring student and community impact.

b. We will establish baseline measures at the beginning of the grant period and compare them with year-end results. Success will therefore be demonstrated not only through increased participation, but through evidence that KSA has become **more effective, measurable, financially sustainable, and less dependent on a small group of volunteer leaders**.

- **Include a description of the expected activities; timeline & costs to implement the initiative. If external consulting services are required, include the anticipated costs & expertise of the consultants to be hired. Include external consultant proposal/s if applicable.**

ACTIVITY	TIMING	PROPOSED COST
Part-time STEM instructors/industry & university subject-matter experts	MONTHS 2–12	$20,000
Fund development and professional grant-writing support	MONTHS 1–12	$10,000
Marketing, communications and community engagement	MONTHS 2–12	$5,000
CPA/accounting and nonprofit financial-management support	MONTHS 1–12	$5,000
Program monitoring, evaluation and impact-measurement support	MONTHS 2–10	$7,500
Organizational/program development and specialized professional services	AS NEEDED	$2,500
TOTAL	**12 MONTHS**	**$50,000**

During **Months 1–3**, KSA will establish baseline organizational and program metrics, identify instructional needs, recruit qualified instructors and subject-matter experts, and engage priority professional-service providers. During **Months 4–9**, instructors will support student programming while consultants strengthen fundraising, communications, financial systems, and evaluation practices. During **Months 10–12**, KSA will evaluate results, document organizational improvements, assess

program outcomes, and develop a sustainability plan for maintaining the expanded capacity beyond the grant period.

External consultants and contractors will be selected based on demonstrated expertise in areas such as **nonprofit fundraising, institutional grant development, nonprofit accounting and compliance, communications, and program evaluation**. Technical instructors will be selected based on relevant professional, academic, research, or engineering experience and their ability to translate that expertise into effective hands-on learning for students. Consultant proposals, scopes of work, and final pricing can be provided as they become available.

