

FUNDING APPLICATION

GENERAL INFORMATION

Organization Information

Legal Name: Foundation for Inspiration & Recognition of Science & Technology in TX		Federal Tax ID#: 27-2657899	501(c)(3) Public Charity 509 (a)(1)	
Address: 2541 South IH-35, Suite 200-263	City: Round Rock	State: Texas		Zip Code: 78664-7357
Website: http://firstintexas.org		Fax: (512) 953-7704		United Way Funded: No

Head Of Organization

Name: Patrick Felty	Title: President/CEO
E-Mail Address: grants@firstintexas.org	Phone: (210) 414-2489

Application Contact

Name: Susan	Title: Ashmore, Development Director	E-Mail Address: grants@firstintexas.org	Phone: (512) 953-7704
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Has the organization applied to the Najim Family Foundation in the past and been declined?

Yes
2018

Grant Amount Requested \$:	Total Project Budget \$:	Organization's Annual budget \$:
\$20,000	\$237,500	\$3,154,000

Mission Statement:

Our mission is to build STEM skills and foster self-confidence, communication, and leadership in young Texans, to strengthen the school-to-STEM career pipeline and inspire the next generation of innovators.

PROJECT INFORMATION

Program / Project Title:

To support the FIRST in Texas Alamo Area FIRST Like a Girl(TM) STEM Career Preparatory program for underserved girls.

PROJECT TIMELINE

Start Date	End Date
07/01/2019	06/30/2020

Harvey E. Najim Family Foundation Priorities:

Education

Education Priorities:

Elementary to High School

Program / Project Description:

STEM-related occupations are projected to grow faster than the average of all occupations (US Bureau of Labor Statistics, 2017). Despite women earning more degrees than men, they account for only 35% of STEM-related degrees - a number that has remained unchanged for the past decade, though women account for almost 60% of college graduates (Brookings Institute 2017).

San Antonio Works Quarter 2 2019 Jobs Report says the top available job postings are almost exclusively STEM related in every sector (<http://www.sanantonioedf.com/media/sa-works-q2-2019-jobs-report/>). When you consider STEM-related jobs are in high demand, AND pay 81% more than the average of all other jobs (WalletHub, 2019), the importance of preparing more Alamo Area girls for occupations in STEM fields, takes on even more significance.

Ten years of independent research confirms, students who participate in FIRST programs are 2x more likely to major in science and engineering in college, 88-91% are more interested in going to college, and 33% of females end up majoring in engineering. Furthermore, girls show significantly greater positive impacts than their male peers (Brandeis University, 60-Month Report, (https://www.firstinspires.org/sites/default/files/uploads/resource_library/impact/first-longitudinal-study-60-months.pdf)).

Luz Moreno, previous member of an Alamo Area FIRST Tech Challenge Team, is now at Texas A&M University Majoring in Mechanical Engineering, and is the first person in her family to go to college. She is thankful for the opportunities she received, including scholarship funding through FIRST (<http://firsttechchallenge.blogspot.com/2016/12/deans-list-highlight-luz-angelica-moreno.html>).

Helping Alamo Area girls, especially underserved, prepare for a future demanding STEM degrees and/or STEM skills is not only an imperative for the future career opportunities for Alamo Area girls/families, it is imperative for the Alamo Area economy, which is vying for the fast-growing STEM industrial complex. Traditional academics, especially in Title 1 public schools are simply not nimble, well-connected, or well-resourced enough to provide the type of education and training for which STEM industries are desperate.

FIRST in Texas has exceptional San Antonio-area industry/education connections/support. We are in partnerships with Toyota, Rackspace, Marathon, Valero, USAA, CPS Energy and other San Antonio-area STEM-related industries - for the simple reason that we produce the knowledgeable, experienced and skilled labor force they need (and great job opportunities and incomes for Alamo Area students who go on to STEM higher ed and/or careers). We are involved with UTSA, Texas A&M SA, and seven (7) San Antonio-Area school districts because they see the positive impact our program has on underserved students. However, even collectively they cannot fully fund the potential, which is why we are reaching out to non-STEM-related SA industries/stakeholders, including H-E-B (current funder), iHeart (current funder), SAAF (grant pending), 80/20 Foundation (previous funder), Coca-Cola, Najim and others. We also participate in the STEM Council, STEM Ecosystem, and TechBloc, and have the endorsement of the SA Chamber of Commerce and Mayor.

It is this need and opportunity that brings FIRST in Texas before you, requesting \$20,000 for the FIRST in Texas Alamo Area FIRST Like a Girl(TM) STEM Career Preparatory, the goal of which is to increase underserved Alamo Area girls' participation in FIRST in Texas, to provide them significant leverage in the pursuit of STEM higher education and STEM careers/jobs.

There are ~7,380 Alamo Area students engaged year-round in the evidence-based, TEKS-aligned FIRST computer science/robotics education program --~2,509, are girls. In 2019, our First Like a Girl(TM) program increased participation by Austin-area girls by ~36%. We want to similarly increase underserved Alamo Area girls' participation in FIRST in Texas in 2020. Our 12-month goal is to increase the number of Alamo Area girls engaged in FIRST in Texas by 100, and for at least 50% to be attending Title 1 schools and/or qualify for free/reduced lunch.

FIRST in Texas will accomplish this goals by recruiting additional female mentors and volunteers, and by providing mentors/teachers EDI training, pedagogy, hardware/software, curricula and ongoing support for classroom robotics and/or to launch/mentor FIRST teams. Trained mentors and/or teachers will provide 200+ hrs a year of STEM education to ~2,600 female students (1-3 days/week, 1-3 hrs/day) utilizing an evidence-based, TEKS-aligned, hands-on, age-appropriate, EDI-focused curricula and methodology that promotes creativity, problem-solving and teamwork, and teaches computer science/coding, engineering, design, fabrication, marketing, and business development. Teams are broken down into the follow age groups. Links are to brief explanatory videos:

FIRST Lego League Jr., K-4 grade - <https://youtu.be/pRPkfOcfYSw>

FIRST Lego League, 4-8 grade - <https://youtu.be/9qeBFeFyYp0>

FIRST Tech Challenge, 7-12 grade - https://youtu.be/A_e5r1lXraY

FIRST Robotics Competition, 9-12 grade - <https://youtu.be/GZXngCu99rs>

Teams of students/girls will meet year-round, and begin competing in the spring at the local, area, state, UIL and world levels to see who has done the best job solving the annual, sociologically-relevant challenge issued by FIRST National (<https://www.firstinspires.org> - 570K students, 100 countries, 300K mentors, \$80M in scholarships, 75% of alumni still involved). FIRST competitions are part rock concert, NASCAR, and Broadway, with giant video screens, music, and costumes - which is part of why this program is so effective - the students love it so much they barely notice they are learning skills placing them quantum leaps ahead of competitors for STEM degrees/jobs. View this 2 min. video of Mark Hamill introducing the Star Wars-themed 2019-2020 Challenge: <https://youtu.be/bPY9Mfj7eRU>, and brief video of what the competitions look like <https://www.youtube.com/embed/9sVEEshbcDg>.

We will also achieve the program goals by staging at least one special event focused on girls and female mentors and role models, and by offering grant incentives for teams composed of 40%+ girls (we have \$1.5 in grants available).

Please view these 3rd party ROI graphs/stories/studies:

http://www.kellrobotics.org/files/model/SLF_Model_for_web.pdf

<https://www.roi-nj.com/2019/02/20/education/stem-education-pays-off-for-economy-bloom-tells-financial-xecs/>

<https://www.brookings.edu/research/the-hidden-stem-economy/>

<https://www.stemvillage.com/blog/why-stem-education-is-the-new-1-corporate-investment>

<https://www.designnews.com/automation-motion-control/2018-will-be-year-robot-roi/181817437457965>

Evaluation Plan:

We will assess the success of FIRST in Texas Alamo Area FIRST Like a Girl(TM) STEM Career Preparatory against the following objective criteria:

- oIncrease the number of underserved Alamo Area girls engaged in the FIRST in Texas to 2,600;
- oProvided year-round STEM career preparatory education to Alamo Area girls, with a focus on underserved girls;
- oStage at least one event in San Antonio focused on girls and female mentors; and
- o80% of girls will demonstrate increased:
 - oInterest in STEM,
 - oAwareness of the role of STEM in the world and careers,
 - o21st century work/life skills (communication, problem solving, teamwork),
 - oAbility to apply knowledge of STEM concepts,
 - oFeeling of connectedness to an adult mentor,
 - oEducation aspirations (e.g., desire to take more challenging courses, finish high school),
 - oSTEM self-efficacy and having a STEM career,
 - o34% will achieve their Bachelors, 41% a Masters, and 19% a Doctorate (evidence-based).

Plans to sustain project beyond the term of this request:

FIRST in Texas creates a culture in student teams similar to that in STEM industries - teamwork, problem-solving, innovation, sustainability, and equity, diversity and inclusion, where individual skills (technical, mechanical, marketing, organization, fundraising, etc.) are valued and engaged to create well-rounded, optimum (evidenced) outcomes. As such, we attract mentors/volunteers, and in-kind and financial support from STEM industries - providing a level of security/sustainability. However, there are many more Alamo Area girls not engaged. The need/opportunity always outweighs capacity.

We are increasing our revenue-producing sophistication, putting more emphasis on earned, individual, and collaborative resources, and broadening our base of support to increase Alamo Area EDI outreach (FIRST Like a Girl(TM)).

Over the past three years, we have increased participation by 48.49%, and our annual budget from \$1.6M in 2017 to \$3.1M in 2020. FIRST in Texas is a thriving, growing organization with a high ROI. We hope you will invest.

Children Impacted:

How many unduplicated children will the TOTAL PROJECT INITIATIVE impact?	How many unduplicated children will NFF REQUESTED FUNDS impact?
2,600	219

Please provide the percentage of each group below that will be served by the project in which funds are being requested. Do not leave any area blank. If that specific group will not be served, include zero. The percentage should total 100%.

A. Population Served Age		B. Population Served Ethnicity	
Infants (0-5)	0%	African American	7%
Children (6-13)	62%	Asian American	4%
Young Adults (14-18)	38%	Caucasian	18%
TOTAL:	100%	Hispanic/Latino	68%
		Native American	1%
		Other and Define	2%
		TOTAL:	100%

City Council District for Which Children are Being Served:

District1, District2, District3, District4, District5, District6, District7, District8, District9, District10

Line item Budget:

Line Item Description	Total Project Funds Allocation	Najim Funds Allocation
Salaries/Benefits?(Dir. of Ed @ 20%, \$16,280, Dir. of Programs @ 20% \$16,317, CEO @ 16%, \$20,728, Marketing Mgr. @ 20% \$11,191, Alamo Area Coordinator @ 50% \$25,264)	\$89,780	\$18,000
Events Production/Labor/ Food/Security/Marketing	\$55,575	\$0
Training Expense/Honorariums/Curriculum	\$53,620	\$0
Equipment/Hardware/Software	\$13,000	\$0
Mileage	\$500	\$0

Miscellaneous (Storage, Supplies, Etc.)	\$2,000	\$0
Indirect @ 10%	\$23,025	\$2,000
TOTAL:	\$237,500	\$20,000

OTHER FUNDING RESOURCES

For Project being Requested: Funding sources and amounts, pending and committed.

PROJECT - PENDING

Funder Name	Amount Requested
Marathon (previous donor)	\$20,000
USAA (previous donor)	\$20,000
CPS Energy (previous donor)	\$20,000
US Air Force (previous donor)	\$10,000
US Army (previous donor)	\$10,000
Rackspace (previous donor)	\$10,000
TOTAL:	\$90,000

PROJECT - COMMITTED

Funder Name	Amount Requested
Toyota Foundation	\$50,000
Texas Workforce Commission	\$50,000
Dell	\$15,000
H-E-B	\$10,000
iHeart	\$2,500
TOTAL:	\$127,500

Other funding sources and amounts, pending and committed not specific to this request.

ALL OTHER ORGANIZATION REQUESTS - PENDING

Funder Name	Amount Requested
Valero (previous donor)	\$25,000
PwC (previous donor)	\$20,000
Dow (previous donor)	\$100,000
Silicon Labs (previous donor)	\$40,000
Union Pacific (previous donor)	\$20,000
Amarillo Area Foundation	\$25,000
Bell Helicopter (previous donor)	\$25,000
Austin Community Foundation	\$20,000
Lyondell Basell (previous donor)	\$20,000
Arconic	\$25,000
TOTAL:	\$320,000

ALL OTHER ORGANIZATION REQUESTS - COMMITTED

Funder Name	Amount Requested
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Texas Workforce Commission	\$1,000,000
Dell	\$65,000
Argosy Foundation	\$90,000
National Instruments	\$75,000
Marathon	\$80,000
Toyota Foundation	\$25,000
Flowserve	\$100,000
Argosy Foundation	\$75,000
Qualcomm	\$75,000
BAE	\$50,000
Oncor Electric	\$50,000
Texas Instruments	\$50,000
Bechtel	\$45,000
Applied Materials	\$40,000
ARM	\$35,000
Booz Allen Hamilton	\$35,000
CPS Energy	\$10,000
Lockheed Martin	\$25,000
Mouser Electronics	\$25,000
Xcel	\$3,000
The CH Foundation	\$10,000
H-E-B	\$10,000
Apple	\$40,000
US Airforce	\$20,000
Rackspace	\$7,500
Overdeck Family Foundation	\$90,000
USAA (Dallas)	\$25,000
Boeing	\$7,500
Del Rio Convention & Visitors Bureau	\$12,000
Various > \$5K	\$10,500
TOTAL:	\$2,185,500

BOARD OF DIRECTORS

What percentage of your board contributes financially to the organization?

70%

If Board giving is not at 100%, please explain why?

The FIRST in Texas board members have historically supported FIRST in Texas through their corporate employer's donations only. However, consideration of a policy to make personal financial commitments mandatory for all board members is being discussed.

How are board members expected to participate in your organization?

The FIRST in Texas Board sets organizational policy, identifies annual and long-term goals/strategies, approves and raises funds to meet the annual budget, hires and supervises the President/Executive Director, monitors and approves the organizational financials, cultivates and stewards relationship in the community, monitors the needs of the community relative to our mission, increases community awareness about our organization and the community needs served by our organization, serve as the "face" and "voice" of our organization in the community, and self-perpetuates the board.

LIST OF BOARD DIRECTORS	
Name & Office Held	Corporate Affiliation
Ray Almgren	Chief Marketing Officer, SwiftSensors, Inc.
Joshua Baer	CEO, The Capital Factory
Piyush Bhargava	Vice-President, Global Operations Dell, Inc.
Dr. Art Cavazos	Superintendent, Harlingen CISD
Chris Culbert, Chairman	Chief of Avionic Systems Division, NASA
Ray Hsu	R&D Director, IoT Software, National Instruments
Caroline Joiner	Partner, Ironclad Partners
Larry Lentz	Owner, Larry Lentz CPA
Hiren Majmudar	VP of Business & Corporate Development, SiFive
Steve Schaffer	Advisor, Investor, Entrepreneur, STEM Advocate
Don Schapker	Director, Mechanical Engineering, Lockheed Martin
Rich Well	VP Operations US Gulf Coast, Dow Chemical
Cindy Stong	Retired, The Boeing Company
Patrick Felty	President/CEO, FIRST in Texas
Signature	
Patrick Felty, President/CEO	