

## Sunnyvale Cares Nonprofit Grant Program Application

### Application Deadline: June 30, 2020 by 5 p.m.

Thank you for your interest in the Sunnyvale Cares Nonprofit Grant Program. Please review the grant guidelines to determine if your organization qualifies for funding. Funding will be approved by the City Council in late July 2020. Applicants will be notified of award decisions in after City Council decision.

#### Complete applications may be submitted in the following ways:

- Mail or Drop Off in Person: Office of the City Manager (Front Desk) Attn: Economic Development 456 W. Olive Avenue, Sunnyvale, CA 94086
- Email: [svcares@sunnyvale.ca.gov](mailto:svcares@sunnyvale.ca.gov)

For questions, email [svcares@sunnyvale.ca.gov](mailto:svcares@sunnyvale.ca.gov) or call 408-730-7607.

Name of Nonprofit organization: Maker Nexus

Name of Individual Submitting Application: Regina Sakols

Individual's email [REDACTED] Phone [REDACTED]

Cell: [REDACTED]

Grant Amount Requesting from the City (Maximum grant amount is \$30,000): \$29,705.00

#### Organization Background

##### 1. When was your organization formed?

We incorporated in January 2018 and opened our doors as a functioning maker space on April 6, 2019.

##### 2. What is your Mission?

Our mission is to increase the capacity of individuals in our community to make things by lowering barriers to the life changing skills, tools & relationships that drive a modern world by providing access to specialty tools and equipment for prototyping, woodworking, textiles, electronics etc, to people of all ages.

We believe that unleashing the innate innovation in people can make their lives better, can improve our community, and can even change the world.

##### 3. Approximately how many Sunnyvale customers are served annually?

In 2019 (our first year of operation):

- 80 students at San Miguel Elementary received instruction (after school STEM program)
- 34 members of our makerspace are Sunnyvale residents
- 64 students for our youth and adult programs were Sunnyvale residents (16 of these were also members)

#### **4. Describe your group's activities and the resources that support those activities.**

Maker Nexus is a non-profit community maker space. We strive to lower barriers to the life changing skills, tools & relationships that drive a modern world by providing access to specialty tools and equipment for prototyping, woodworking, textiles, electronics etc, to people of all ages.

We provide the education and instruction for learning new skills and help with the realization of students and members projects. We are working closely with partner organizations like Streetcode Academy in East Palo Alto, the American Indian Alliance, and Sunnyvale Community Services to enable our underserved communities to be able to take advantage of our skill building classes and youth enrichment programs.

#### **Classes In-House**

Classes offered by Maker Nexus for adults and youth fall into three distinct categories, which are:

- Basic Operation: Participants learn how to use the tools and equipment at Maker Nexus safely
- Projects: Attendees develop maker skills while making specific things such as jewelry, jigsaw puzzles, and furniture.
- Skill Building: Courses specifically targeted at developing a skill set (woodworking, sewing, electronics, etc.)

#### **Youth Programs In-House**

In addition to the suite of courses described above, during the academic year and on school holidays Maker Nexus offers a variety of challenging, skill building, and fun classes for both after-school and home-school programs. Maker Nexus also hosts STEAM (Science, Technology, Engineering, Art, Math) camps for youth and teens during longer breaks. Topics currently covered are:

- Electronics and Robotics
- Textiles: Sewing and Design
- Design and Prototyping: Board Games
- Woodworking

#### **Sponsored Programs**

- During the 2019-20 school year (December through January), Maker Nexus worked with the Sunnyvale School District to teach after-school STEAM programs at St. Miguel Elementary school, one of the Title 1 schools in Sunnyvale. The program took place over the course of eight Friday afternoons for two hours for a total of 60 students from different grades which made the learning experience highly diverse and dynamic.
- During the summer of 2019 Maker Nexus worked with Amazon Lab126 to teach a three week robotics camp for 35 minority and underserved High school students, 80% were girls. The objective was to have eight teams of four students design and build a delivery robot which had to master an obstacle course and deliver a package. Design thinking, prototyping, construction (engineering), and programming the robot presented

challenging learning experiences that all of students enjoyed and excelled at. The camp was fully funded by Amazon with \$120,000.

- July/August 2019 we were able to sponsor 10 middle school students to take the Maker Nexus Jr. exposure class, which teaches design thinking, prototyping, woodworking, 3D printing, and laser cutting to create a personal chess board. Seris Regis kindly donated \$5,000 to make this possible for students from East Palo Alto that we recruited with recommendations from the Street Code Academy, one of our partner organizations.

**5. What is your annual budget?**

For 2019, we had revenue of \$365,000 and expenses of \$459,000. For 2020, pre-COVID, we budgeted \$942,00 in revenue and \$692,000 in expenses, with 43% of the revenue expected to come from donations and grants.

**6. How do you raise funds?**

We have four sources of revenue: membership fees, class fees, general donations, and grants. We advertise online and in targeted events (like local fairs and relevant meetings). For larger grants, we do targeted outreach to tell our story, particularly around STEAM education for underserved youth.

**7. How many employees does your organization have?**

We have three full time and three part time employees. Our board is entirely composed of volunteers.

**8. What steps has your organization taken to address budget impacts due to COVID-19?**

We applied for and received a Payroll Protection Plan loan from the SBA. We very recently opened our Maker Space under strict social distancing rules and are beginning to teach one-on-one classes. We are beginning to develop online classes and workshops for students of all ages. This will allow us to reach people who are not able to physically attend our facility: people who are impacted by health issues, disabilities, or COVID-19 high risk population.

**9. Describe the impacts of the COVID 19 pandemic on your organization, specifically, what are the financial impacts?**

We closed the makerspace to members and cancelled all classes from March 17 - June 15, which caused us to lose all revenue from classes. We estimate that the net revenue loss for the closed period was \$17,000. Our membership declined 13%, for a revenue reduction of \$3,700 per month. We do not expect the membership revenue to recover any time soon because of ongoing limits on usage of the makerspace due to our strict social distancing guidelines. The longer the pandemic lasts, the more members we will lose. We see a lot of reluctance of members to expose themselves to the public and visit spaces like Maker Nexus.

Although we have reopened, our ability to provide services has been reduced by the necessary disinfection and social distancing protocols. Our costs have not been reduced, since the operation and maintenance of the makerspace is little affected by the number of users and minor reductions related to reduced usage are offset by materials needed for PPE and intensified cleaning.

We therefore expect less revenue from in-person classes going forward because of reduction in class sizes required by social distancing. For the remainder of the year we expect a reduction of \$30,000 in net revenue from paid, in-person classes.

More concerning to us, our plan to significantly increase programs for underserved youth has been put on hold. Our prior success with in-person group learning that featured hands-on engagement was central to our vision for increasing our services and was driving our targeted fundraising. This was a large part of our expected increase in services this year. That has all come to a halt, and we must rethink our approach.

**10. For what purposes would this grant be used and how would it benefit your organization and customers?**

Considering the long term impact COVID-19 has on our community, we see the need to pivot some of our programs to online education. The minority communities are highly impacted by COVID - we therefore need to bring the education to them. Our concept is to develop a strong STEAM-focused online curriculum supported by kits which are sent to the student's home. The learning experience will be a combination of videos, online instruction, and virtual sessions with the class and a Maker Nexus instructor.

**Proposal:**

The SVCares grant would fund: FPV DRONE workshop, to develop the first of a series of educational films to benefit students of the four current Sunnyvale schools with Title 1 funding. Students are often limited by economic disparities in part of the greater Sunnyvale communities and have little opportunities to expand their knowledge of STEM skills – science, technology, engineering and math.

A series of 8 educational videos is part of the vision of Maker Nexus. The SVCares grant will provide the initial funding for this series of on-line instruction.

The initial instructional film would be to develop a ***remote piloted first person view (FPV) quadcopter***. The FPV drone will combine the engineering expertise of Maker Nexus, the Next Generation Science Standards being utilized within California's Core Curriculum, and the researched curricula methods of instruction for on-line courses.

The request for \$29,705.00 will be utilized as described below:

2 Cameras –Cannon EOSR or Fuji XT4	\$	3,000
Batteries		75
External power source		100

2 Mics	400
Software	900
Lights	400
Set	600
Legal	500
Website	1,000
Server Support	2,000
Training of Maker Nexus staff – 30 hours @ \$60.00 hr	1,800
Script Development – 14 hours @ 45.00 hr	630
Editing 245 hours @ \$60.00 hour	14,700
Administrative overhead @ 12%	3,600

**11. Any other information you would like the Council Committee to consider?**

By creating this first on-line instructional program, we can utilize a grant we secured to teach underserved minority students in STEM subjects. We received that grant before COVID-19 became the pandemic it is now.

All students, particularly with financial need, would be able to participate in low-cost or fully subsidized, high-interest programs that use modern technology such as 3D printing, CAD designs, robotics, and drone development. The educational grant we received at the beginning of this year will allow a kit to be created for each student so they will have all the necessary tools and remote teacher instruction, to learn the on-line course, with the ultimate goal to enhance their understanding of scientific applications.

We are working with the City of Sunnyvale's Youth and family Resources Managers, the Library and Community Services; Damian Sparacino, Michael Muse and Angela Chan from the Columbia Neighborhood Center and will seek cooperation with the Sunnyvale School District for the coming school year.