



JUNIOR APPROPRIATION GRANT

#21-ZF9166

For Youth and Community Programs

Community Programs



LATEST IN TECHNOLOGY



SUMMER/HOLIDAY CAMPS



SOMETHING FOR ALL AGES

Creating a Makerspace:

Thanks to the funding of Junior Appropriation Grant #21-ZF9166, the City of Rio Communities will be able to create many community programs. With the implementation of various types of programs, the City of Rio Communities will be creating a Makerspace to accommodate them all. But what is a Makerspace?





MAKERSPACE

['MĀKƏR, SPĀS]

NOUN

A PLACE IN WHICH PEOPLE WITH SHARED INTERESTS, ESPECIALLY IN
COMPUTING OR TECHNOLOGY, CAN GATHER TO WORK ON PROJECTS WHILE
SHARING IDEAS, EQUIPMENT, AND KNOWLEDGE.



Create!

Explore!

Learn!

Makerspace will include:

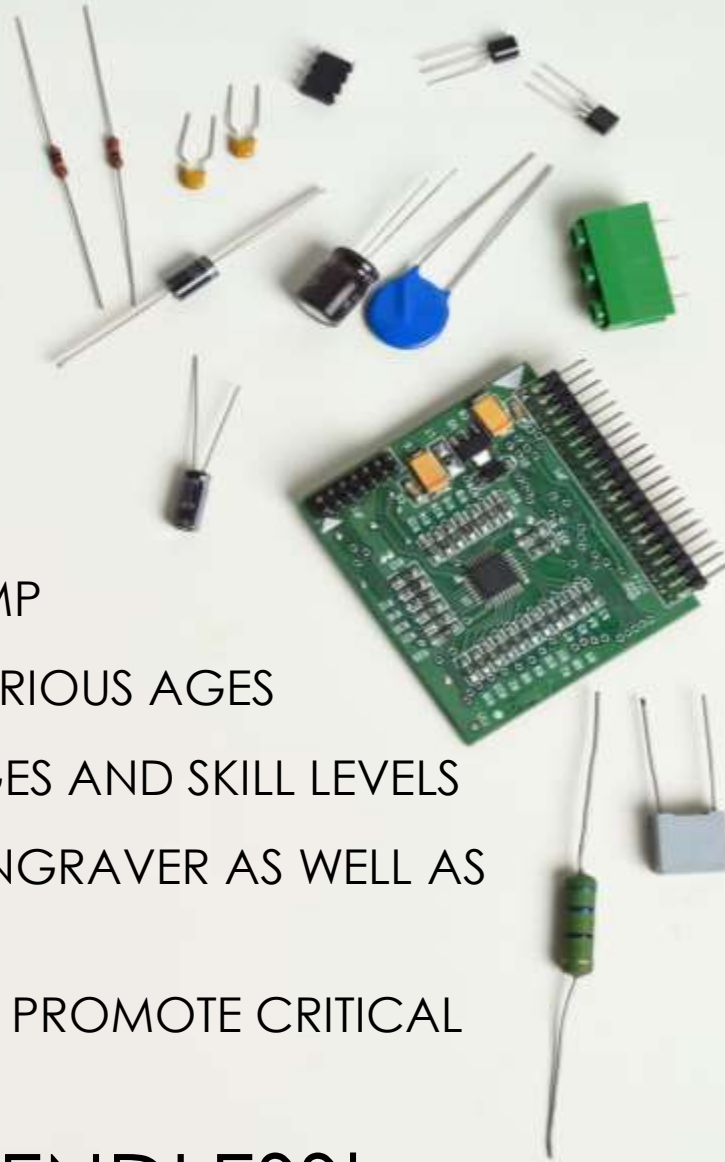
- OSMO Early Learning System
- Coding
- Robotics
- Drones
- 3D Printing
- Laser Cutting/Engraving
- Cricut Explorer 3
- Videography/Photography/ Sound Studio
- Stop Motion Filming
- Sewing Center
- Plastic Recycling Center
- Graphic Arts and Gaming
- Arts and Crafts/Classes
- Physical Activities
- Escape Room Events

Total Cost of Programs; \$75,000

STEAM PROGRAMS:

- ❑ ROBOT CAMPS
- ❑ DRONE CAMPS AND EVENTS
- ❑ STILL MOTION FILMING PROJECTS
- ❑ CREATE A YOUTUBE CHANNEL CAMP
- ❑ ART AND SEWING CLASSES FOR VARIOUS AGES
- ❑ CODING CAMPS FOR VARIOUS AGES AND SKILL LEVELS
- ❑ CAMPS TO LEARN LASER CUTTER/ENGRAVER AS WELL AS 3D PRINTERS
- ❑ ESCAPE ROOM SPECIAL EVENTS TO PROMOTE CRITICAL THINKING SKILLS

THE POSSIBILITIES ARE ENDLESS!



S
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- **STEAM** stands for Science, Technology, Engineering, Arts and Math.
- The City of Rio Communities will be creating programs and camps to include all aspects of STEAM for different age and educational levels.
- As a city, our goal is to provide informative, engaging, and well-rounded programs to develop a love of education and a possible direction for future careers.



THE TECHNOLOGY

OUR RESIDENTS DESERVE THE BEST OPPORTUNITIES!

OSMO

Let's start them young. OSMO is an award-winning, technology-based learning system allowing children pre-k - 5th grade access to a variety of subjects. Children learn using tablets with numerous interactive manipulatives for each subject.

Subjects covered include:

- Reading
- Math
- Science
- Art
- Coding
- Critical Thinking

The learning system will be available for in-library use and will also be integrated into summer and special camps for the appropriate age groups.

<https://www.playosmo.com/>





<https://www.elegoo.com>

<https://codakid.com/>



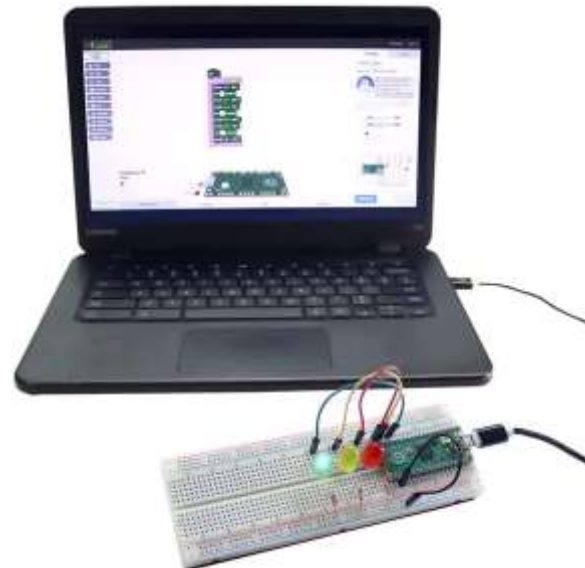
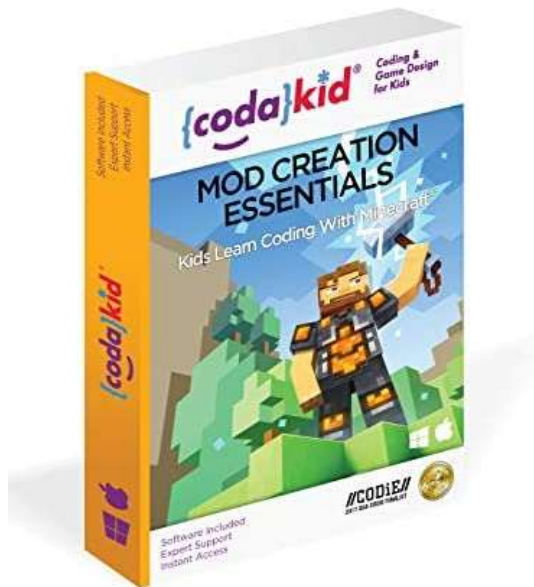
<https://www.playosmo.com/>

<https://www.playpiper.com>

CODING

While many other states teach Coding in the classroom, the majority of schools in New Mexico do not. With computers being such an integral part of our society, it is key for our children and teenagers to have the same opportunity.

The City of Rio Communities will offer coding programs throughout the year to help our youth develop a much-needed skill in this age of technology.



ROBOTICS

Building robots is such a fun way to learn about many subjects. There is no limit to what types of robots can be created using math, circuitry, engineering, coding, and a little imagination.

Robotic camps, based on age, will include various levels of design, from simple toothbrush robots to robots that have been coded to do complex tasks.



<https://www.sciencebuddies.org/Go/On-Your-Mark-Get-Set-Go!-Science-Project>



<https://www.amazon.com/SunFounder-Programmable-Raspberry-Background-Multi-Function>



<https://www.amazon.com/Make-block-Programmable-Educational-Engineering-Robotic>



<https://www.amazon.com/Buildi-ng-Construction-Engineering-Rechargeable-Programmable>



<https://www.amazon.com/Gee-ek-Club-Robot-Building-Adults>

DRONES



There are so many ways drones are used today, ranging from filming, real estate, and the military. Drone Camp will take students to new heights.

Learning to fly basic models and graduating to more and more difficult models, students will finish drone camp in a competition with a timed obstacle course.

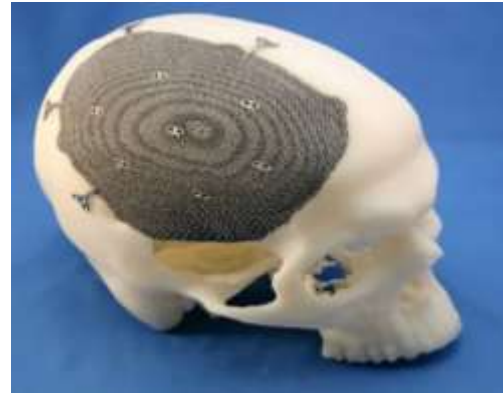




<https://www.amazon.com/ELEGOO-Photocuring-Activated-Off-Line-Printing>



<https://www.amazon.com/Flashforge-Adventurer-Leveling-Removable-Precision>



3D PRINTING

Offering 3D printing is a must for providing the community a deeper look into technological fields. From art, to machining obsolete parts, creating shoes, city planning, prosthetics, to life-saving medical devices, 3D printing offers unlimited uses.

Rio Communities would be providing a glimpse of what is possible with some training and creativity. 3D printing could easily become a career path for some of our students and residents. 3-D printing has no age limits. Our 3D printers would be available for most ages to learn to use.



LASER CUTTER/ ENGRAVER

We want our makerspace to be the best in the State of New Mexico. One way the City of Rio Communities will be able to offer the best by providing a Laser Cutter/ Engraver.

This machine will do everything, including cutting or engraving wood, leather, metal, cardboard, fabric, paper, ceramic and many other types of materials .

With easy-to-use software and numerous safety features, this machine will help generate interest in technological fields among our residents. This machine presents enormous potential for generating future education and business opportunities.

[Amazon.com: OMTech 130W CO2 Laser Engraver and Cutter with 35x55 Motorized Bed, Autofocus, Industrial Water Chiller, Laser Engraving and Cutting Machine with LightBurn, Compatible with Windows, Mac, Linux System](https://www.amazon.com/OMTech-130W-CO2-Laser-Engraver-Cutter/dp/B071111111)



CRICUT

The Cricut, to some degree, is similar to a laser cutter and can, on a smaller and less industrial scale, perform many of the same tasks.

With the ability to cut and engrave multiple surfaces, the Cricut is also a great tool to prepare a variety of ages the love of technology and conjure up great and relatively inexpensive business ideas. It is a fun and easy-to-use machine that inspires creativity and can be used in various City programs for young and not-so-young.

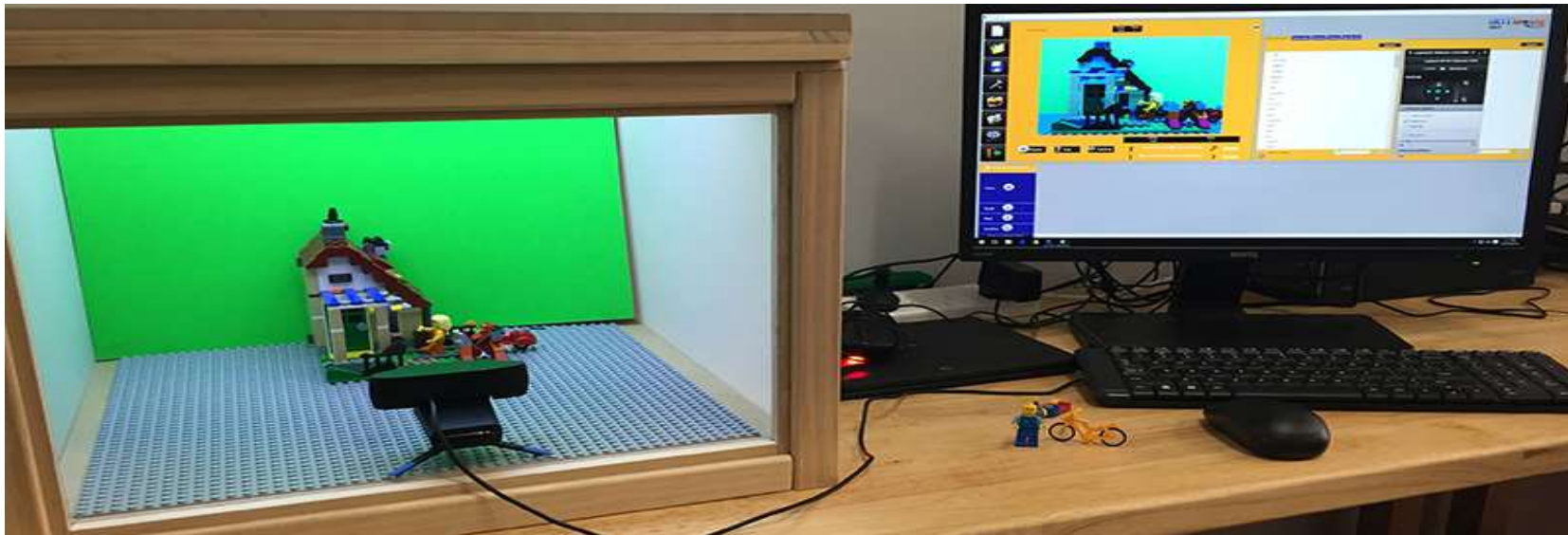


[Cricut Explore](#)

PHOTOGRAPHY/VIDEOGRAPHY/SOUND STUDIO

With so much of the worlds industries residing online, we need to provide learning tools for online businesses such as websites, YouTube channels, and podcasts. Photograph, Videography and a Sound Studio are some ways the City of Rio Communities can provide some of the learning tools necessary.





STOP MOTION FILMING

Using the same equipment as videography and photography, Stop Motion Filming camps will allow students to create movies. Stop motion is a great way for children and teens to learn videography, lighting, set-making and props, as well as sound. There are no limits to what can be created with Stop Motion Filming and a little imagination.

The beauty of this program is that it can include almost all other programs in our Makerspace, utilizing the laser cutter to create backgrounds, the 3D printers to create props and sets, and endless other possibilities.

SEWING CENTER

A sewing center will be provided for fashion camps, quilting circles, and sewing classes, with 5 heavy duty sewing machines, an embroidery machine and a serger.





PLASTIC RECYCLING

The City of Rio Communities will offer a hands-on recycling program. This program would include gathering recyclable plastics, sorting and shredding the plastics, and turning the shredded plastic into crafts, filament for 3D printers, and items that would benefit the community, such as park benches.

This could be a joint effort with the schools to help students understand how important and useful recycling can be.

We live in an age where gaming is huge, both as a recreational activity, but also as a growing career. By providing the best technology to learn graphic arts on we are giving our community an opportunity to dive into that field of technology.

The City of Rio Communities would offer two graphic art stations complete with software and drawing tablets for residents to create various types of graphic designs, whether anime characters, fantasy worlds, or create art for novel covers.

GRAGHIC ARTS/GAMING



<https://secure.newegg.com>

Because we are a rural city, it is important to provide something for our residents to do. Gaming would be an ideal form of entertainment with the ability to host tournaments with four gaming stations, have family and movie nights, and offer supervised, age-appropriate fun to help our youth stay out of trouble.





UNPLUGGING

Low-Tech Fun



Taking a Break

Sometimes we all need a break from technology. City of Rio Communities will integrate physical activities and low-tech fun into the community programs.

Completely stocked with an assortment of supplies for painting and drawing classes, everything needed for arts and crafts projects of every kind, and plenty of workspace, Makerspace that would make any art teacher proud.

Integrating physical activities is also very important to programming. Let's face it, we all need a break from sitting and time to get the wiggles out. Obstacle courses, jump ropes, balls, and games of various types will be fun and entertaining, a short recess from technology.



ESCAPE ROOM EVENTS

Escape rooms are great fun and promote critical thinking skills. The City of Rio Communities will host four escape room events throughout the year.

The best part of the events will be creating the props and backdrops in the Makerspace. Each maker space will have two levels of difficulty to accommodate different levels of skill. Who-done-its and find-the-treasure themes will be fun and intriguing.





MAKING OUR SPACE WORK FOR US

Because the Makerspace will be used for so many activities, the furniture must be versatile, functional, and mobile.

Organization will also be essential to keep track of location and availability of materials.

Protecting our investment is also important so cameras and locking cabinets and drawers will be essential.



IT ALL ADDS UP

A Breakdown of Each Program

Program	Age Served	Frequency of Program	Initial Investment
OSMO Early Learning System	Pre- K thru 5 th Grade	Library Hours or Special Camps	\$3,000
Coding, Robotics, and Drones	1 st Grade thru 12 th Grade	Special Camps	\$4,000
3D Printers and Laser Cutter/Engraver	5 th Grade and up/ Adults welcome	Will vary based on availability of supervising staff/Camps	\$13,000
Cricut and Supplies	Will vary	Will vary based on availability of supervising staff/Camps	\$1,000
Photography/Videography/Sound Studio/Stop Motion	Will vary	Will vary based on availability of supervising staff/Camps	\$8,000
Sewing Center	5 th Grade and up/ Adults welcome	Time Scheduled with Staff/Camps	\$5,000
Plastic Recycling	All Ages	Several Days a Month/Camps	\$18,000
Graphic Arts & Gaming	Will vary	Time Scheduled with Staff/Competitions	
Art Supplies	All Ages	Time Scheduled with Staff/ Camps	\$2,000
Physical Activities	Will vary	Time Scheduled with Staff/ Camps	\$2,000
Escape Room Events	5 th Grade and up/ Adults welcome	Time Scheduled with Staff	\$1,000
Furniture/Organizers			\$8,000
		TOTAL	\$75,000



TURNING IDEAS INTO REALITY

The City of Rio Communities is very appreciative to be entrusted the Junior Appropriation Grant for Community and Youth Programs.

We believe it is most important to use the grant wisely, creating programs that will bring new ideas, spark imagination, further education and bring forms of entertainment to our City. We also believe each activity should be within reach of each of our residents, regardless of age or ability. It is our goal to provide the best opportunities to our residents.