

05.Jun - 09.Jun

# AGE 4-7

12.Jun - 16.Jun



A LEGO Robotics program with a SPACE

heme. Think STAR WARS <sup>™</sup> and Lunar

anders and Mars Rovers! Campers will

have a blast using motors, gears, pulleys

and motion sensors to create fun space

hemed LEGO builds! Campers will learn

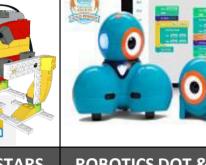
create motion! Develop problem solving

and logical thinking with block coding!

. Mars Rover Robot, 2. AT-T Walker

Robot, 3. Space Shuttle and X-Wing

about simple machines like gears to



including the kids!

**ROBOTICS DOT & DASH** oding is the career of the future! Naturally, it's best learned from robots. The ability to code will be expected of nearly everyone. Like any language, coding is best learned while young. Dash & Dot are real robots that teach kids to code while they play. Kids learn to code while they make Dash sing & dance all around the Camp. Sensors on the robot react to the environment around them,

Get them to code!

and Gobo paint

1. Fish tank/Aquarium, 2. Pong game,

3. .Alien Shooting game and Maze solver

**SCRATCH GAMES** Kids learn to create their own games & fun stories & animations with SCRATCH using "drag and drop programing". SCRATCH, helps young kids to learn to hink creatively, reason systematically, & work collaboratively. Color coded, ntuitive drag & drop block rogramming, as well as sounds, backdrop images and drawings are used.



and operating robots beyond our planet. Build Robots with Infrared, touch and color sensors and overcome terrain bstacles by applying engineering design and cool programming techniques! Applied robotics programs are great for engaging children in math, science, ngineering, design, collaboration!



SILLY CIRCUITS Learn about Electronics while doing fun

**ANIMAL ANTICS** Enhance students' curiosity and science and engineering skills with a wonderful introduction to ROBOTICS with LEGO Bricks, Tilt and Motion Sensors, Motors and gears, Block coding. Children will be

then sensing and controlling them using motor skills, creative and logical problem

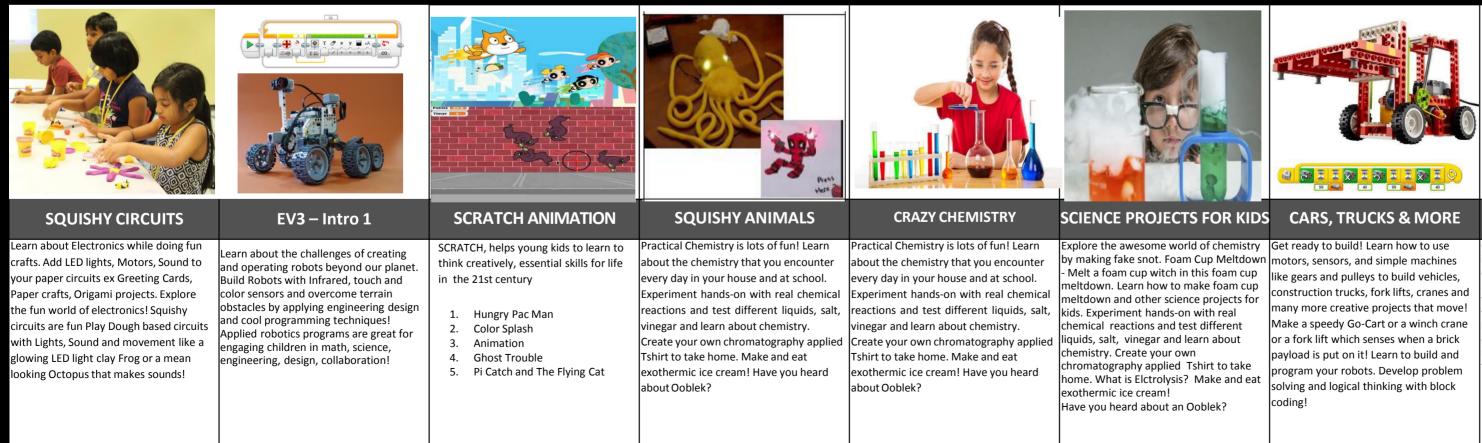
- 1. Dancing Birds
- 2. A drumming monkey
- 3. Flapping Bird! 4. Roaring Lions!
- 5. A very hungry Alligator!

block coding. Develop spatial thinking,

## LUNCH TIME (12:00 - 1:00 PM)

## Outdoor Blast! (Toss Ball, Frisbee, Hop-Scotch!) - Order a healthy hot delicious meal delivered to our location! Please call for information!

solving!



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crafts. Add LED lights, Motors, Sound to our paper circuits ex Greeting Cards, Paper crafts, Origami projects. Explore the fun world of electronics! Squishy building these fun Animal Robots with and circuits are fun Play Dough based circuits with Lights, Sound and movement like a lowing LED light clay Frog or a mean looking Octopus that makes sounds!



popular in the hobby electronics world. The easy availability of craft-like materials and increasing abundance of new products has created a really unique ecosystem for crafters looking to make the leap to electronics projects. Paper circuits are a great way of adding light to your drawings, origami, or paper craft creations. This lovely ynthesis of art and technology is a great way to introduce artists to electronics, and engineers to art.

1. Hungry Pac Man

Color Splash

Ghost Trouble

Pi Catch and The Flying Cat

Animation

2.

3.

4

5.

#### **ROBOTICS DOT & DASH**

Coding is the career of the future! Naturally it's best learned from robots. The ability to code will be expected of nearly everyone. Like any language, coding is best learned while young. Dash & Dot are real robots hat teach kids to code while they play. Kids learn to code while they make Dash sing & dance all around the Camp. Sensors on the robot react to the environment around hem, including the kids!

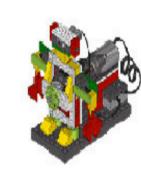


# AGE 4-7

### 03.Jul - 07.Jul

## 10.Jul - 14.Jul

## 17.Jul - 21



#### **STARS WARS ROBO**

#### LEGO Robotics program with a SPACE heme. Think STAR WARS ™ and Lunar Landers and Mars Rovers! Campers will have a blast using motors, gears, pulleys and motion sensors to create fun space hemed LEGO builds! Campers will learn about simple machines like gears to create motion! Develop problem solving and logical thinking with block coding! .. Mars Rover Robot, 2. AT-T Walker Robot, 3. Space Shuttle and X-Wing Fighter

glowing LED light clay Frog or a mean

ooking Octopus that makes sounds!



#### **CRAZY CHEMISTRY Adv**

Practical Chemistry is lots of fun! Learn about the chemistry that you encounter every day in your house and at school. Experiment hands-on with real chemical reactions and test different liquids, salt, vinegar and learn about chemistry. Create your own chromatography applied Tshirt to take home. Make and eat exothermic ice cream! Have you heard about Ooblek?



#### SCRATCH GAMES-Coding

(ids learn to create their own games & fun stories & animations with SCRATCH using "drag and drop programing". SCRATCH, helps young kids to learn to think creatively, reason systematically, & work collaboratively. Color coded, intuitive drag & drop block programming, as well as sounds, backdrop images and drawings are used. Get them to code! 1. Fish tank/Aquarium, 2. Pong game, 3. .Alien Shooting game and Maze solver

glowing LED light clay Frog or a mean

looking Octopus that makes sounds!

and Gobo paint



#### Amazing World of Cells!

hands-on Biology class where kids will enjoy observing and learning via compound microscope screen projectors animal and plant cells celery leaf, corn stem, lotus root, cabbage leaf, pumpkin ovary, ginger root, honey bee antenna, butterfly wings, sunflower pollen. Research is Yeast alive? Test for proteins, cell structure & Osmosis, extracting DNA rom your own cells.



#### **ANIMAL ANTICS**

Enhance students' curiosity and science and engineering skills with a wonderful introduction to ROBOTICS with LEGO Bricks, Tilt and Motion Sensors, Motors and gears, Block coding. Children will be building these fun Animal Robots with and then sensing and controlling them using block coding. Develop spatial thinking, notor skills, creative and logical problem olving!

- 1. Dancing Birds
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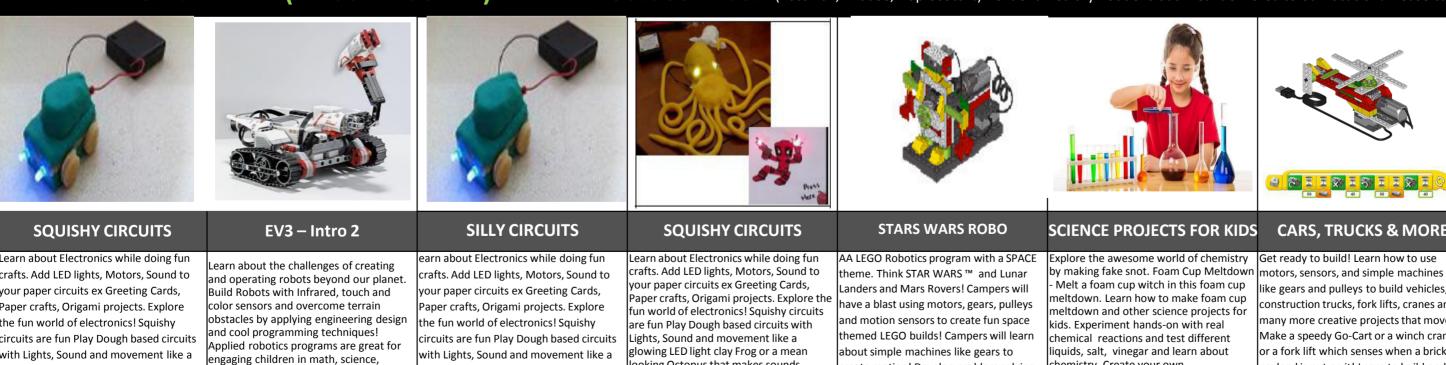
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. Mars Rover Robot, 2. AT-T Walker

Robot, 3. Space Shuttle and X-Wing

# LUNCH TIME (12:00 - 1:00 PM)

engineering, design, collaboration!



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	- 21.Jul	24.Jul - 28.Jul	
	SILLY CIRCUITS	SCRATCH GAMES-Coding	SILLY CIRCUITS
Ł	Learn about Electronics while doing fun crafts. Add LED lights, Motors, Sound to your paper circuits ex Greeting Cards, Paper crafts, Origami projects. Explore the fun world of electronics! Squishy circuits are fun Play Dough based circuits with Lights, Sound and movement like a glowing LED light clay Frog or a mean looking Octopus that makes sounds!	<ul> <li>SCRATCH, helps young kids to learn to think creatively, essential skills for life in the 21st century</li> <li>1. Hungry Pac Man</li> <li>2. Color Splash</li> <li>3. Animation</li> <li>4. Ghost Trouble</li> <li>5. Pi Catch and The Flying Cat</li> </ul>	Paper and Plado circuits are becoming more and more popular in the hobby electronics world. The easy availability of craft-like materials and increasing abundance of new products has created a really unique ecosystem for crafters looking to make the leap to electronics projects. Paper circuits are a great way of adding light to your drawings, origami, or paper craft creations. This lovely synthesis of art and technology is a great way to introduce artists to electronics, and engineers to art.

### Outdoor Blast! (Toss Ball, Frisbee, Hop-Scotch!) - Order a healthy hot delicious meal delivered to our location! Please call for information!

chemistry. Create your own chromatography applied Tshirt to take home. What is Elctrolysis? Make and eat

exothermic ice cream! Have you heard about an Ooblek?



#### CARS, TRUCKS & MORE

ike gears and pulleys to build vehicles construction trucks, fork lifts, cranes and many more creative projects that move! Make a speedy Go-Cart or a winch crane or a fork lift which senses when a brick bayload is put on it! Learn to build and program your robots. Develop problem solving and logical thinking with block coding!



**ROBOTICS DOTS & DASH** 

Coding is the career of the future! Naturally t's best learned from robots. The ability to le will be expected of nearly ever Like any language, coding is best learned while young. Dash & Dot are real robots that teach kids to code while they play. Kids learn to code while they make Dash sing & dance all around the Camp. Sensors on the robot react to the environment around hem, including the kids!



# **AGE 8+**

12.Jun - 16.Jun

#### 05.Jun - 09.Jun

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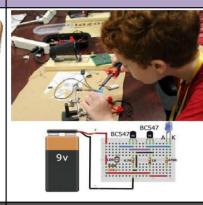
#### **EV3 - MARS MISSON**

earn about the challenges of creating and operating robots beyond our planet. Build Robots with Infrared, touch and olor sensors and overcome terrain obstacles by applying engineering design and cool programming techniques! Applied robotics programs are great for engaging children in math, science, engineering, design, collaboration! . Rover, 2. Maze Solver, 3. Wall Climber Robot, 4. Star Wars R2D2 and 5.Snake Robot



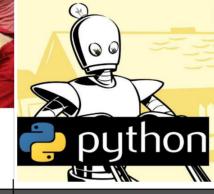
#### **JAVA MINECRAFT**

A unique opportunity for young students to learn Java in an exciting & meaningful way. For every item, block or creature they want to add, kids first design the graphics, armor, skin and then add or modify JAVA code to quickly program their new features or change surroundings or character's behavior. Students can then take what programs they build home!



#### **ELECTRONICS LAB**

young makers can explore this exciting and popular field by learning the basics of electronic circuits and how electronic components work, which they can then apply to an idea of their own. They will be able to create their project using everyday materials. Students will use breadboards and will learn to build circuits that blink, squeak, tick and whirl



#### **PYTHON Jr** Python is a powerful, expressive programming language that's easy to

earn and fun to use. Python for kids easil rings kids into the world of rogramming. We build cool Graphics & Games during the course. We use IDLE as development tool as well as common Libraries that help with Graphics and ame building like tkinter and pygame to xplore the power of Python language! building fun robots!



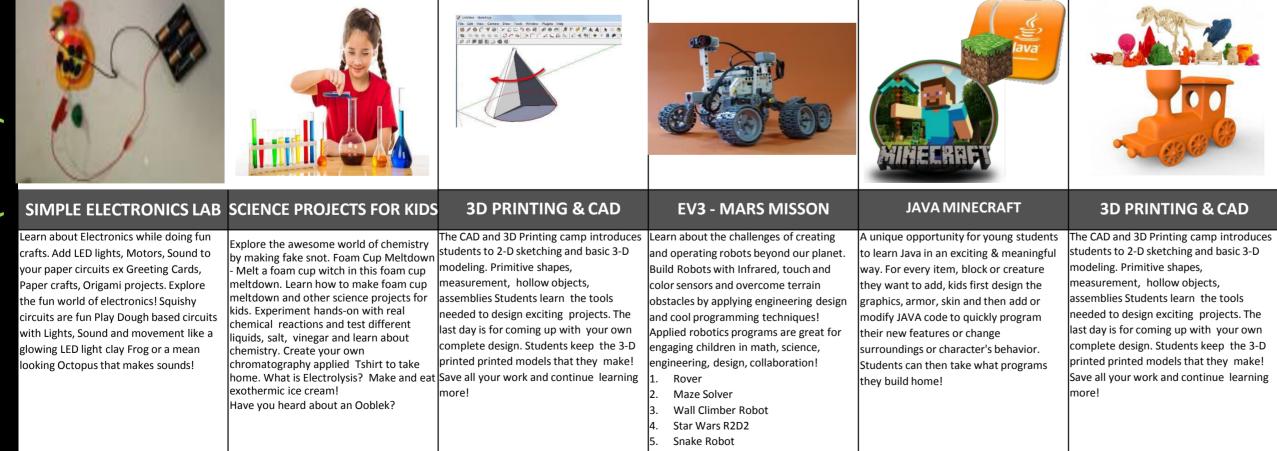
**EV3 - ART BOTS** 

Learn about the color spectrum and human vision. Build spin art machines, drawing robots and kinetoscopes (moving pictures). Each day of the camp is a completely new fun Robot building and block coding challenge with art or music in mind. Learn about light, color, touch sensors and controlling your robots while

# usions and much more!

### LUNCH TIME (12:00 - 1:00 PM)

Outdoor Blast! (Toss Ball, Frisbee, Hop-Scotch!) - Order a healthy hot delicious meal delivered to our location! Please call for information!





STEAM Works Studio 7151 Preston Rd, #191 a, Frisco, Tx 75034

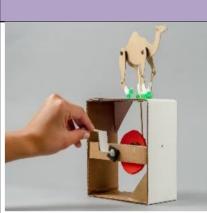
#### 19.Jun - 23.Jun

26.Jun - 30.Jun



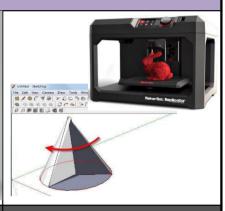
#### **OPTICS & LASERS**

This practical Physics program demystifies concepts in Optics (Light as waves, mirrors enses, Snell's laws, how do lasers work, communication with light etc. with a ands-on learn by making approach. We build projects like Periscopes, Galilean elescopes, Projectors, Virtual Reality Goggles, Laser experiments, optical



#### CARDBOARD AUTOMATA

Cardboard Automata are a playful set of hands-on MAKING projects that allows young children to explore simple mechanical elements such as cams, levers, and linkages, create marble runs or explore creating a moving cardboard sculpture. Cardboard automata use levers, cams, pulleys, cam followers, linkages, and other mechanisms to make unique personalized creations.



The CAD and 3D Printing camp introduces students to 2-D sketching and basic 3-D nodeling. Primitive shapes, measurement, nollow objects, assemblies Students learn the tools needed to design exciting projects. The last day is for coming up with your own complete design. Students keep the 3-D printed printed models that they nake! Save all your work and continue earning more!

**3D PRINTING & CAD** 



#### SCIENCE PROJECTS FOR KIDS

**3D PRINTING & CAD** Explore the awesome world of chemistry A unique opportunity for young students

Melt a foam cup witch in this foam cup neltdown. Learn how to make foam cup meltdown and other science projects for kids. Experiment hands-on with real emical reactions and test different liquids, salt, vinegar and learn about chemistry. Create your own chromatography applied Tshirt to take ome. What is Electrolysis? Make and eat Students can then take what programs exothermic ice cream! Have you heard about an Ooblek?

by making fake snot. Foam Cup Meltdown to learn Java in an exciting & meaningful ay. For every item, block or creature hey want to add, kids first design the graphics, armor, skin and then add or odify JAVA code to quickly program their new features or change urroundings or character's behavior. they build home!



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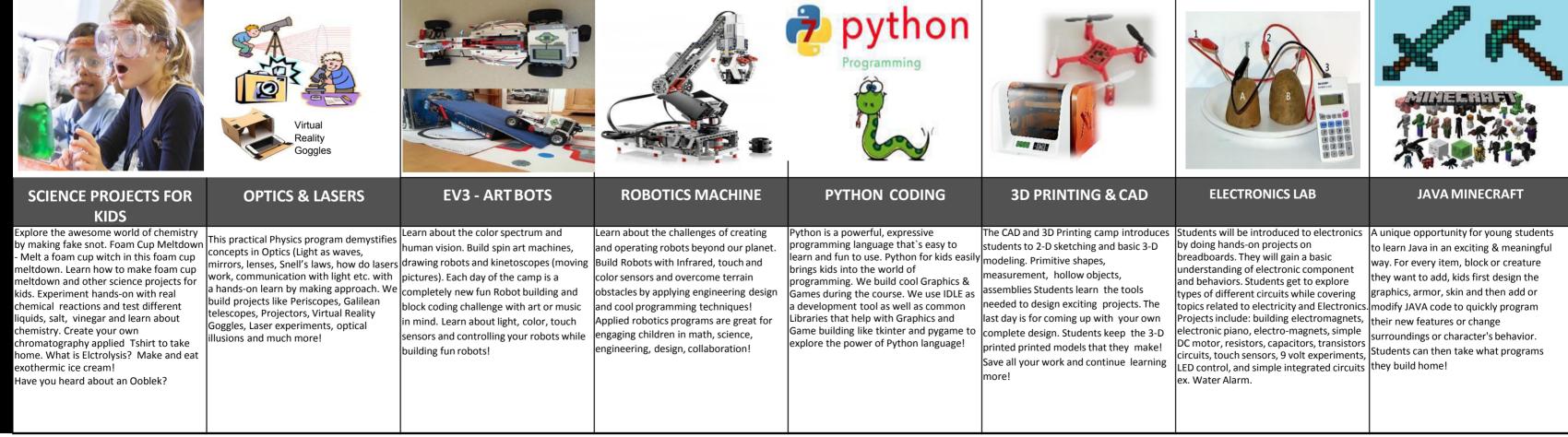
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# AGE 8+

#### 03.Jul - 07.Jul 10.Jul - 14.Jul 17.Jul - 21.Jul Simple python Electronic Piano lava **EV3 - MARS MISSON JAVA MINECRAFT** SIMPLE ELECTRONICS LAB PYTHON CODING **EV3 - ART BOTS** SCIENCE PROJECTS FOR KIDS earn about the challenges of creating A unique opportunity for young students Students will be introduced to electronics Python is a powerful, expressive Learn about the color spectrum and Explore the awesome world of chemistry y making fake snot. Foam Cup Meltdown by doing hands-on projects on programming language that's easy to and operating robots beyond our planet. to learn Java in an exciting & meaningful human vision. Build spin art machines, earn and fun to use. Python for kids easil preadboards. They will gain a basic Melt a foam cup witch in this foam cup Build Robots with Infrared, touch and way. For every item, block or creature drawing robots and kinetoscopes (moving inderstanding of electronic component brings kids into the world of neltdown. Learn how to make foam cup pictures). Each day of the camp is a olor sensors and overcome terrain they want to add, kids first design the rogramming. We build cool Graphics & and behaviors. Students get to explore eltdown and other science projects for obstacles by applying engineering design graphics, armor, skin and then add or ompletely new fun Robot building and types of different circuits while covering ames during the course. We use IDLE as kids. Experiment hands-on with real ind cool programming techniques! modify JAVA code to quickly program copics related to electricity and development tool as well as common block coding challenge with art or music hemical reactions and test different lectronics. Projects include: building Libraries that help with Graphics and iquids, salt, vinegar and learn about Applied robotics programs are great for their new features or change in mind. Learn about light, color, touch ectromagnets, electronic piano, electro Game building like tkinter and pygame to hemistry. Create your own engaging children in math, science, sensors and controlling your robots while surroundings or character's behavior. agnets, simple DC motor, resistors, explore the power of Python language! chromatography applied Tshirt to take engineering, design, collaboration! Students can then take what programs building fun robots! apacitors, transistors circuits, touch home. What is Elctrolysis? Make and eat . Rover, 2. Maze Solver, 3. Wall they build home! sensors, 9 volt experiments, LED exothermic ice cream! Climber Robot, 4. Star Wars R2D2 control, and simple integrated circuits ex-Have you heard about an Ooblek? and 5.Snake Robot Water Alarm

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7151 Preston Rd, #191 a, Frisco, Tx 75034

#### 24.Jul - 28.Jul





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