

SUMMER
2018

CREATE & BOUNCE

TECH CAMP

(FOR AGES 7-13)



A SUMMER THEY WILL NEVER FORGET!

Our unique Technology Camp features Robotics with LEGO® Mindstorms® and LEGO® Stop-motion animation. Learn to design, build and program robots! Campers work both individually and in small teams (2-3) using the Mindstorms® Robotics Kit* and participate in the various fun challenges. Our Technology Camp is a camp that gives children a daily balance of playtime and imagination! It is both FUN and EDUCATIONAL! It is a one-of-a-kind experience your child will never forget.

BOUNCEU SUMMER CAMPS INCLUDE:

- Theme based arts and craft projects
- Games and structured activities
- Guest performers, special activities or science experiments
- Low staff-to-camper ratio 1:10
- Ice cream party every Tuesday
- Pizza party every Thursday (sack lunch M-T-W)
- Daily snacks and treats
- Access to camp photos

	WEEK	DATES	THEME	GUEST PERFORMERS/SPECIAL ACTIVITY
JUNE	1	4-7*	Smart Race Cars	Fun on Segways!
	2	11-14	Robo Creatures	Interactive live animal show by Amazing Animal World (www.amazinganimalworld.com)
	3	18-21	Motor Madness	Glow-in-the-dark-slime & cool science demonstration
	4	25-28	Robotunes	Whistle and sound science experiment
JULY	5	2-3**	Remote Control Bot	Drone! And special 4th of July Celebration
	6	9-12	Sensor Bots	Giant water slides & fun water games
	7	16-19	Space Explorer	Jedi training & battle with Darth Vader (The Fairy Godmother Character Entertainment)
	8	23-26	Robo-Games	Magic show and balloon twisting lesson (Real Magic and Company)
	9	30-August 2	Battle Bots	Giant water slides & fun water games
AUG	10	6-9	Robo-Warriors	Water rocket launch!

*JUNE 4-7: Rancho Cordova only

**Week 5 is a 2-days camp with a special price of \$79

Guest performers and special activities are subject to change without notice

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SAMPLE DAILY SCHEDULE

9:15AM - 9:30AM	Check in and ice breaker activities
9:30AM - 11:30AM	Workshop #1: Build & Design + snacks
11:30AM - 12:15PM	Bounce & Games
12:15PM - 12:45PM	Lunch
12:45PM - 1:30PM	Workshop #2: Programming, Challenges, and Play
1:30PM - 2PM	Bounce and Games
2PM - 2:15PM	Check Out

Schedule is subject to change without notice

AGES

7-13

DAYS

Monday - Thursday

TIME

9:15AM - 2:15PM

DROP OFF/PICK UP

FREE early drop off available starting at 8:30AM.

Additional after camp hours (until 5:30PM) available for modest additional charge. Ask for a discounted after hour punch card!

COST

- \$149/child for each week,
- \$139 for sibling or for each additional week if paid at the same time as the first child's enrollment.

Note: Week 5 (July 2-3) is a shorter 2-days camp with special price of \$79

BEST DEAL

Enroll to 3 weeks of camp and get the 4th week for only \$99!*

*All 4 weeks of camp must be for the same child.

**Camp fee must be paid in full at time of registration and is non-refundable.

Pizza and drink for lunch also available Mon - Wed for only \$5/child (must order 24 hours in advance). We will provide pizza for free every Thursday.

RESERVE YOUR CHILD'S SPOT TODAY!

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SAMPLE ROBOTICS PROJECTS

Campers begin learning to design, build, and program a different TRACK 1 robot each day using LEGO® Mindstorms Robotics kits. After the completion of 12 camp sessions of TRACK 1, camper will receive a certificate of completion and can work on TRACK 2 robots that are more complex and require more advance programming.

TRACK 1 ROBOTS

1. Ball Shooter

This cool robot controls a pitching machine and batter with the touch of a button. Campers will get a chance to program their ball shooters with different speed and interval.

2. Bumper Car

This robot has a bumper in front that triggers a touch sensor to tell the robot when it has run into something. The program will make the robot drive around the room, turning each time it bumps into something. Start it anywhere, and see where it goes. Will it get stuck or keep going and going.

3. Hammer Car

This Hammer Car can drive around and swing its hammer down to pound whatever is in front of it. You can drive, steer, and swing the hammer all by using the single touch sensor button on the remote control.

4. Mini Rover with remote control

Campers will have so much fun building this super cool rover operated by a remote control. At the end of the camp session, we will have fun games and challenges that allow everyone to show their creativity!

5. Line Follower

Line follower is a robot that follows a line on the ground. It will use one light sensor to sense where the line is, and use this to control the motors to steer the car and stay on the line.

TRACK 2 ROBOTS

1. Race Car

This Race Car is designed to look and steer like a real car, with pivoting front wheel steering. It is also designed for speed, with gears to increase the speed of the rear drive wheels. This robot race car uses the color sensor that is positioned under the car to do some basic autonomous operations by sensing the color of the surface. The sensor can distinguish six different colors, so you can make the car react to different colored tape lines, colored paper strips, etc.

2. Segway w/ Rider

This robot simulates a Segway PT, which is a two-wheeled self-balancing vehicle that a rider stands on. By using the NXT Color Sensor as a simple proximity sensor to the ground to detect the approximate tilt angle of the robot, the robot can actually balance itself.

3. Sumo wrestling robot

Campers will design robots for Sumo match. Two robots start inside a ring marked with a border of a contrasting color and try to be the first one to push the other robot outside the ring (without accidentally driving outside the ring themselves).

4. Tripod Bot

The tripod is a three legged walking robot that you have to see to believe. It can walk in three directions but it is a little shy because when it sees you, it will quickly walk turn away.

5. Robo-Gator

This Robo-Gator act just like alligator and only attacks if he has the nerve (which most alligators do). The humanoid senses color and tells you what color it is sensing. It also walks and feels using touch sensors.

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TRACK 1 ROBOTS

6. Claw Striker

Claw Striker uses the ultrasonic sensor to automatically locate a target, adjust its distance to the target, and then swing its claw like a whip to strike the target.

7. Telegraph

Tap out any rhythm on this telegraph, and it will answer you by playing back your exact rhythm with the NXT's speaker, as if a distant friend on the other end of the line was answering and repeating you.

8. Hand Generator Car & Top spinner

Campers will have a blast building two very cool robots: A cool car powered by a hand cranked generator and a handheld motor spins up a spinning top faster than you could spin it by hand!

9. The Explorer

Robot explorer can zoom around the room and avoid any obstacle it run into. We'll create a challenging obstacle for our robot explorer and send him for a special mission!

10. Golf-Bot

Golf-Bot has a robotic arm that can swing as a golf club to hit balls. We will set up our own miniature golf course with obstacles and walls and then play a game of golf!

11. Path Measurer Robot

This super smart robot that can measure any path you challenge her to measure! At the end of the building session, campers will create different challenges to test how smart our Path Measurer Robots are.

12. Electric Guitar

Campers will build a state-of-the-art electric guitar uses the ultrasonic sensor to measure the distance to a plate that slides along the neck of the guitar, which determines which note or chord to play. Let's rock and roll!

TRACK 2 ROBOTS

6. Strider

This six-legged monster walks around in any direction. It's antennas detect input from humans or other animals. While it may seem like a scary spider, this robot is actually afraid of light. You'll program this robot to walk only in the dark, and stop when the lights are on. We'll also program this robot to walk around and change direction if one of the antennas is touched.

7. Llama Bot

Llamas actually do spit—which you will learn first-hand of you scare or anger one of these animals in person. This robots spits balls with a Zamor shooter.

8. Forklift

Campers will build a forklift that can drive around, lift loads that are placed in the pallet bucket 7 inches straight up, set them gently down on top of shelves, and then take them back down.

9. Shot Rollers

A robotic defense system that can shoot in any direction to keep intruders out of a room.

10. Jeep Bot

The Jeep Bot is a four-wheeled, front-wheel drive vehicle that can react to obstacles in its path using the ultrasonic sensor mounted on the roll bar. The Jeep is programmed to begin turning to the left as it approaches an obstacle, turning sharper the closer it gets.

11. Everstorm (LEGO® MINDSTORMS® EV3)

A Mohawk-sporting humanoid that shoots mini-spheres as it walks.

12. Tracker (LEGO® MINDSTORMS® EV3)

Automated tank that scans the area for any intruders

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