

SPACE-TECH SUMMER CAMP ACTIVITIES

JUNIOR CADETS (AGES 6–10)

ACTIVITIES

CosmoCatchers

Play a game using sensors and lights where players "chase" star targets.

Mini Innovators Lab

Use Makey Makey boards to turn everyday objects into touch interfaces.

Rover Rangers

Navigate a model rover through a course mimicking Mars missions.

Gravity Racers

Build a marble roller coaster with loops, drops, and curves using paper.

Rocket Lander

Design a lander to protect a payload (egg, ball) when dropped from height.

SpanMasters

Build the strongest bridge using limited materials like straws or sticks.

ACTIVITIES

STEM Escape Room Challenge

Solve science and engineering puzzles to escape a themed room.

Parachute

Design and test parachutes that slow down falling objects.

Balloon Fighting robot

Design a robot that pops opponent balloons in a fun, competitive challenge.

Bubble-Powered Rocket!

Launch a small rocket using chemical reactions that produce gas.

AI Experiments

Interact with simple AI tools (like Teachable Machine) to understand how AI works.

Marshmallow Tower Contest

Build the tallest tower possible using spaghetti and marshmallows.

ACTIVITIES

Glow-in-the-Dark Art

Create art using glowing paints and lights in a dark room.

Spin Art Robot

Construct a robot that creates art by spinning paper and applying paint.

Electronics Paper Craft Workshop

Combine LED circuits with folded paper to make interactive artwork.

DIY Lava Lamps

Mix oil, water, and tablets to create a bubbly, moving lamp.

Squishy Circuits

Build circuits using conductive dough to power LEDs and motors.

Paper Hand with Strings

Create a paper hand that moves like a real one using strings and pulleys.

DIY Hovercrafts

Build a mini hovercraft using a balloon and CD to glide over surfaces.

PLEASE NOTE: This schedule is across the 2 weeks Camp

SPACE-TECH SUMMER CAMP ACTIVITIES

SENIOR CADETS (AGES 11–14)

ACTIVITIES

NeuroBot Control

Robot Control Use hand gestures via sensors to wirelessly control a robot's movement.

Code & Conquer

Create a simple game using Python programming language.

BattleBot Arena

Build and control a robot that plays soccer using sensors and motors.

CircuitCraft Lab

Use Makey Makey boards to turn everyday objects into touch interfaces.

SkyRider Missions

Program flight paths and commands for a mini drone using block coding.

Crew Docking

Simulate docking a space capsule with a space station using timing and logic.

ACTIVITIES

Balloon fighting robot

Design a robot that pops opponent balloons in a fun, competitive challenge.

Glider

Build and test paper or foam gliders for distance and accuracy..

STEM Escape Room Challenge

Solve science and engineering puzzles to escape a themed room.

Bubble-Powered Rocket!

Launch a small rocket using chemical reactions that produce gas.

Climbing Robot

Build a small robot that climbs vertically using motors and gripping arms.

AI Experiments

Interact with simple AI tools (like Teachable Machine) to understand how AI works.

ACTIVITIES

Mystery Box STEM Challenge

Open a box of random materials and build a STEM solution within time limits.

Morse Code

Learn to encode and decode messages using light or sound signals.

Satellite Dish

Build a model satellite dish that reflects and focuses signals (like sound or light).

Build a Mars Rover

Design and build a rover to explore simulated Martian terrain.

Spin Art Robot

Construct a robot that creates art by spinning paper and applying paint.

Paper Hand with Strings

Create a paper hand that moves like a real one using strings and pulleys.

Paper Craft Workshop

Use templates and folding techniques to build 3D paper structures.



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