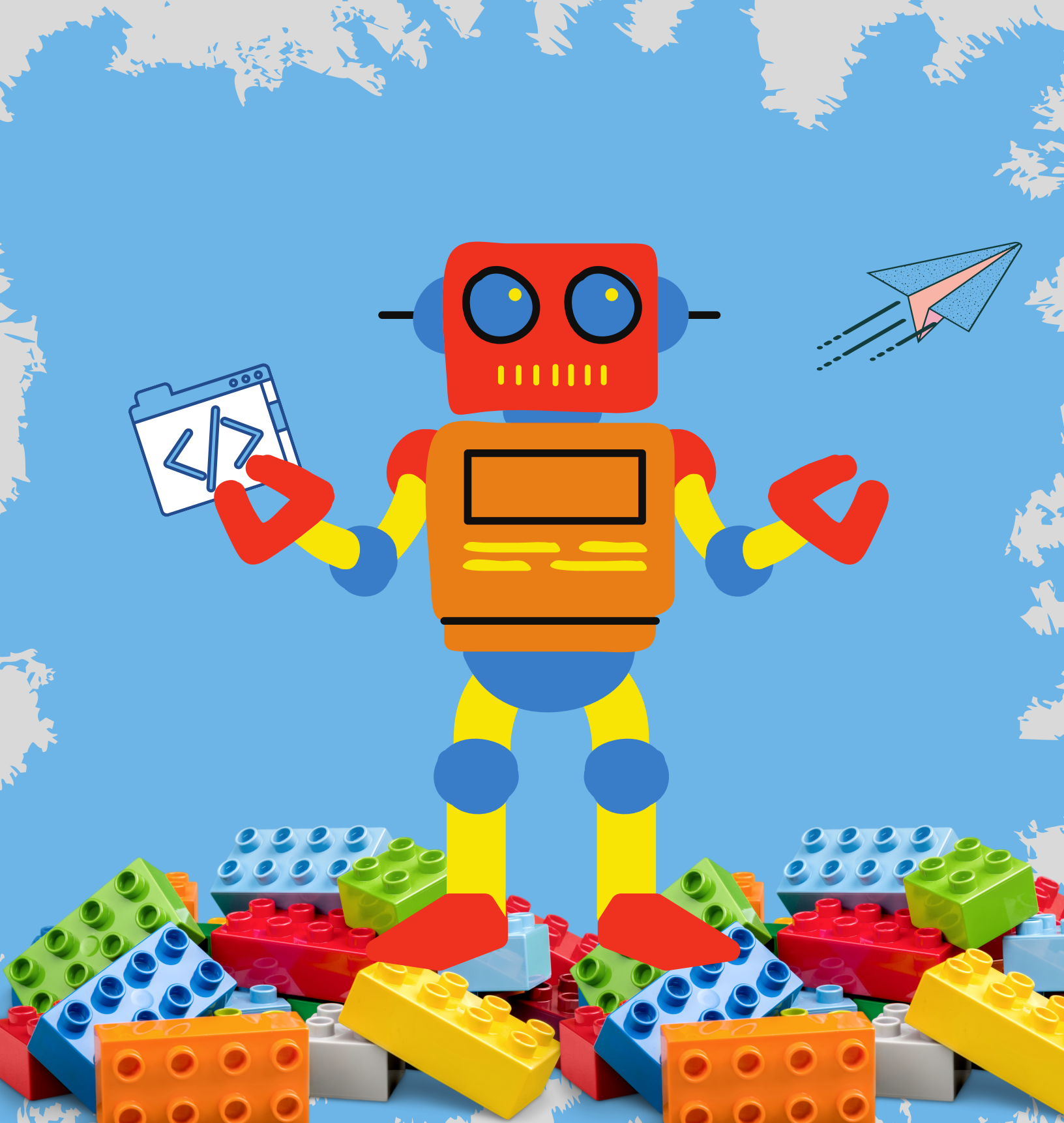


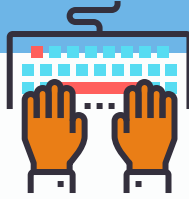
CREATING W/ CODING & ROBOTICS



16 WEEKS OF EXPLORATION & DISCOVERY
IMPACTING HOME, SCHOOL, & THE ENVIRONMENT



Parent Guide



How do I use these activities?

We have designed these activities to be used with the entire family. Our goal is for you to have fun and learn more about STEAM. Each activity will provide you with directions, materials you need, and resources.



Community Events/Activities

Each month there will be community activities (See Calendar [HERE](#) on the website) and events. By attending these and completing your project, your family can earn tickets to local area attractions. See the calendar for each month's community activities.



Parent Video

Be sure to check out our parent video series for overviews, tips, ideas, and more [HERE](#).



Important Links

Website: <https://nc16weeksofsteam.org/>

Activities: <https://nc16weeksofsteam.org/curriculum-download/>

Calendar: <https://nc16weeksofsteam.org/events/>





16 WEEKS OF EXPLORATION & DISCOVERY
IMPACTING HOME, SCHOOL, & THE ENVIRONMENT



Parent Activity Recommendations

For this unit, your student will complete activities held at various locations with all materials for use! We have given grade-level recommendations, but feel free to work with your student on any or all of the activities. Younger students will need support. You will need to check the Events Calendar for days and times to do the activities.

Tips

- You will need access to the Internet for many of these activities and projects.
- You and your child will be creating using coding & robotics this month.
- Take pictures along the way to document your progress!

Family Project Sharing

- We will have a special day for you to share your projects. Please refer to the calendar for the dates.
- For families that attend we will be giving away tickets to local attractions (i.e. Fleet Space Theater, Midway Museum, Aerospace Museum).



STEM Activities w/ LEGO

TK-2nd grade (and for anyone who LOVES LEGOS)



Go to <https://thestemlaboratory.com/lego-stem-activities/> to select a free project.



Note: Over the next 2 weeks try various projects out. Get the whole family involved! Be sure to check out the Challenge Cards and the Zip Line.

Coding & Robotic Activities w/ Cori Create 5-8th grades

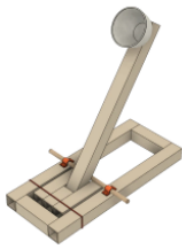
You will be going to the location(s) listed on the Event Calendar to use this Jeepney kit. Directions will be provided with the kit.

Go to <https://coricreate.com/pages/coriculum> to learn more!

CORiculum

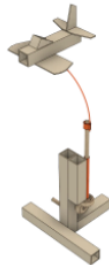
Lesson plans and instructions are FREE to download.
[Contact us](#) for more info on product releases.

Classroom Projects



Catapult Mini

[Instructions](#) | [Lesson Plan](#)



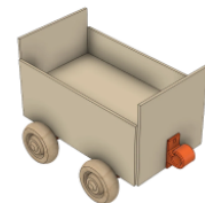
Flying Automata Mini

[Instructions](#) | [Lesson Plan](#)



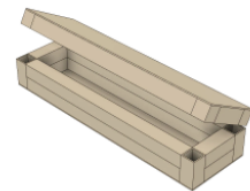
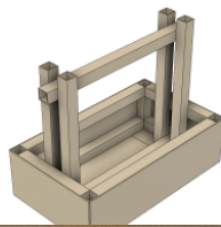
Ramp with Winch

[Instructions](#) | [Lesson Plan](#)



Wagon Mini

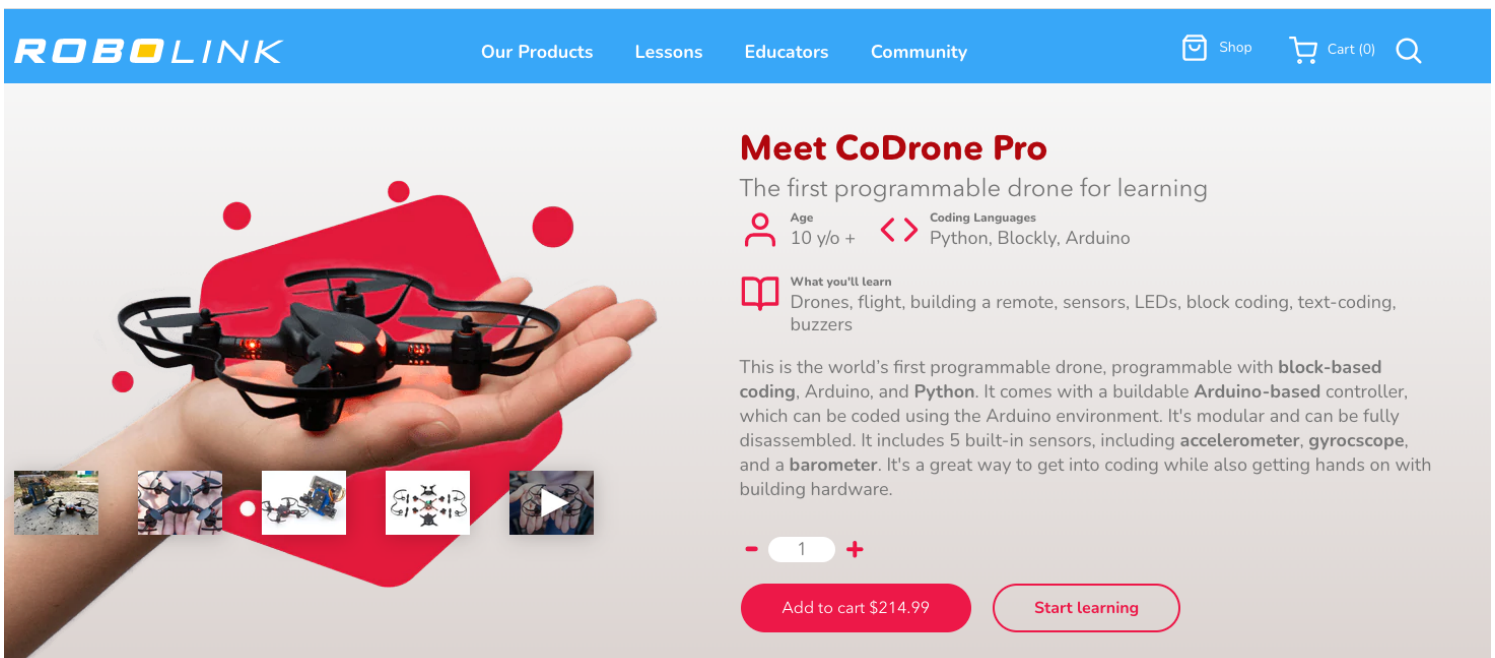
[Instructions](#) | [Lesson Plan](#)



Coding & Robotic Activities w/ Robolink 5-8th grades

You will be going to the location(s) listed on the Event Calendar to use this kit. Directions will be provided with the kit.

Note: ARTS has room for 10 participants (see Event Calendar to register). This is designed for students in 5th-8th grades.



ROBOLINK Our Products Lessons Educators Community Shop Cart (0)

Meet CoDrone Pro

The first programmable drone for learning

Age 10 y/o + **Coding Languages** Python, Blockly, Arduino

What you'll learn Drones, flight, building a remote, sensors, LEDs, block coding, text-coding, buzzers

This is the world's first programmable drone, programmable with **block-based coding**, **Arduino**, and **Python**. It comes with a buildable **Arduino-based** controller, which can be coded using the Arduino environment. It's modular and can be fully disassembled. It includes 5 built-in sensors, including **accelerometer**, **gyroscope**, and a **barometer**. It's a great way to get into coding while also getting hands on with building hardware.

- 1 +

Add to cart \$214.99 Start learning



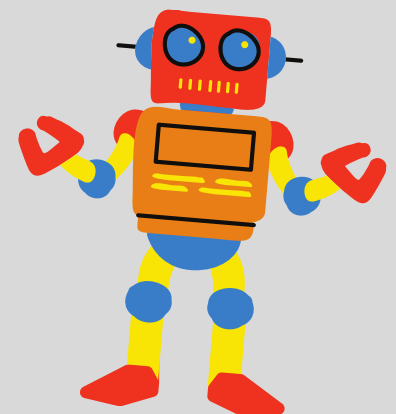
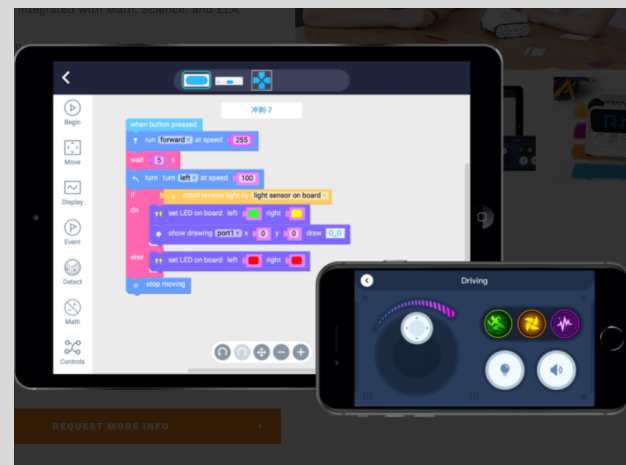
You can choose one to do. See the event calendar for details.

Mission to Mars with Codey Rocky Robot

Send Codey to Mars! An adventure awaits where Codey becomes a rocket, then a spaceship, then a rover once he lands on Mars. Educators use the 20+ online lessons to teach coding and Engineering Design integrated with Math, Science, and ELA.

Codey Rocky is a treasure trove of fun right out of the box, with no assembly required, Codey plays music, follows light, mimics facial expressions, and much more with simple Scratch coding.

- Develop critical thinking and NGSS engineering design skills
- Develop CS skills: control the robot with Scratch coding, learn how programs work and what code does in scaffolded lessons
- Integrated math: Reason abstractly and solve multi-step real world problems, use equations, inequalities, comparisons, positive and negative rational numbers, geometry, variables, distance, time, speed, measure, and convert measurements
- Teacher-led lessons follow the 5-E learning model and provide over 30 hours of STEAM and coding activities



Coding & Robotic Activities w/ RoboThink 5-8th grades

Families will need to register using the [Event Calendar](#). There is limited availability so check the calendar for times and location.



Programs
Robotics
Design and build robots, have a blast!

HEAVY CELL
LIGHT CELL
GEARS & AXLES
WHEELS

MAINBOARD
SENSORS
CONTROLLERS
MOTORS

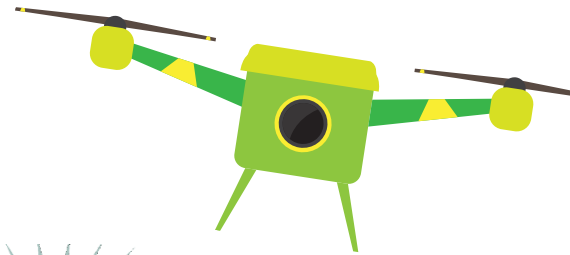
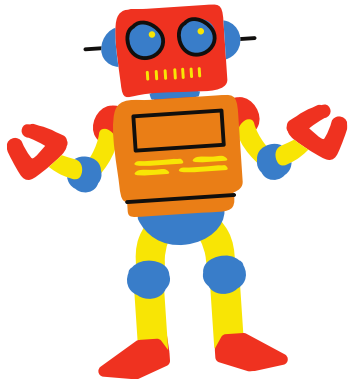
The advertisement features a blue background with a white dot grid pattern. On the left, the text 'Programs Robotics Design and build robots, have a blast!' is displayed. In the center, there is a white-bordered image of a robot kit with a play button icon. The kit includes various components labeled: HEAVY CELL, LIGHT CELL, GEARS & AXLES, WHEELS, MAINBOARD, SENSORS, CONTROLLERS, and MOTORS. At the bottom left, there is a small illustration of a robot and a breadboard.



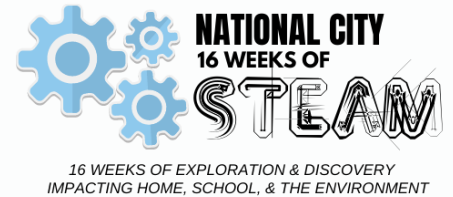
For all events please see the calendar!

Look for days that you can come to ARTS or the Library to create a Robot or Drone and have a special session with Javier Rosales. Please refer to the [calendar](#) for specific dates and projects. You won't want to miss these interactive sessions!

Calendar Link: <https://nc16weeksofsteam.org/events/>



Unit: Coding & Robotics
Recommended Grade Levels: PreK-8th
Talk to a Pro

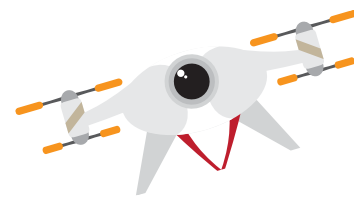


Parent Activity Recommendations

Look at the [Event Calendar](#) on the website and attend the Nepris expert interviews. This is an opportunity for the entire family to learn more about this field. Use the sheet on the next page for students to organize their questions, ideas, and more during the interview.

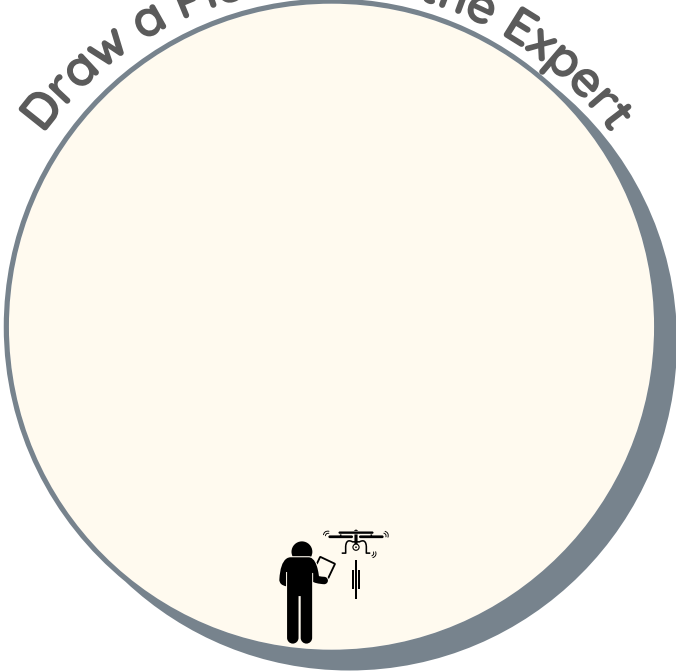
Tips

- Make a copy for each person.
- Write down questions and any thoughts before the interview.
- Students can work on this sheet before, during, and after the interview. It is designed to be a fun graphic organizer, so don't worry if your student wants to do something else.
- Encourage your student to discuss ideas and thoughts on what the expert shared.



INTERVIEW WITH AN EXPERT

Draw a Picture of the Expert



Name & Title of Expert

Empty rectangular box for writing the expert's name and title.

Describe what this person does

Large empty rectangular box for describing the expert's role.

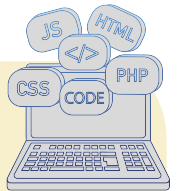
3 Things You Learned:

Orange rounded rectangular box for listing three things learned from the interview.

Questions for the Expert



Large rounded rectangular box with a yellow border for writing questions for the expert.



What would you like to know more about?

Large yellow rounded rectangular box for writing topics to learn more about.