

GETTING STARTED WITH

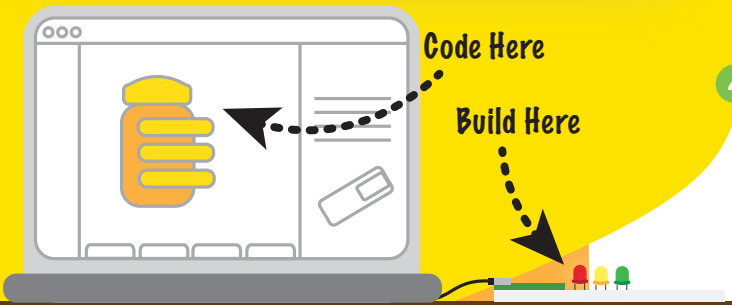


WITH YOUR STARTER EXPEDITION KIT

WHAT IS PIPER MAKE?

Piper Make is our STEAM product and platform that provides a learning tool for students (grades 4-9; ages 9+) to innovate at home or in the classroom. **Piper Make blends basic hardware kits with our cloud-based, drag-and-drop coding software** to allow students to explore building with the Raspberry Pi Pico Microcontroller.

The Piper Make experience begins with **building the Piper Make hardware**, using an engineering blueprint. Once constructed, the interactive dashboard guides students to learn about prototyping design, math and science concepts, engineering design methods, computational thinking and **coding with Blockly** (a block based coding language) in a fun and engaging way. All curriculum is aligned with core learning standards.



1 Go to [MAKE.PLAYPIPER.COM](https://make.playpiper.com)



Hit the green buttons for more information on individual projects.

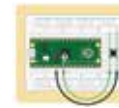


Use Google Sign in as an Educator to access more Make features.

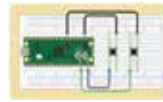
2 Start Building Circuits:



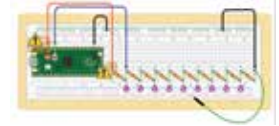
Complete your first circuit by touching wires together in **Getting Started**.



Build and code a button to count the number of presses in **Tally**.



Learn how binary works and create a binary decoder in **Speak Like a Machine**.



Create music using a series of resistors to jam out in **Resistor Piano**.

3 Start Computing with the Pico:



Generate random numbers and test your guesses in **Guess My Number**.



Explore the Collatz Conjecture with **Bouncy Numbers**.



Create variables and lists to run simulations in our version of Madlibs, **Silly Stories**.

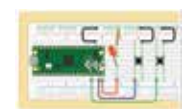
4 Start Building with Lights:



Build and code your first flashing light with **Blink**.



Build three LEDs and code their sequence with **Traffic Light**.

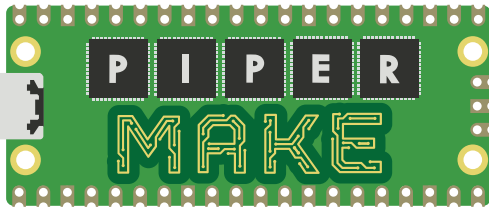


Build, code, and play a game of reflexes with two buttons and a LED in **Reaction Game**.



Get your Piper Make at playpiper.com and start exploring at make.playpiper.com.





EXPEDITION KITS

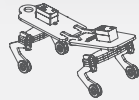
Get add-on expedition kits to experience more of Piper Make! Explore robotics, sensing, or gaming with our kits available on playpiper.com

WITH YOUR GAMING EXPEDITION KIT

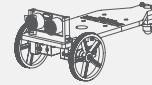


Build your **Game Controller** and code it to play **Frog Frenzy** and games in **Pip's Arcade** before heading over to **Minecraft Education Edition!**

WITH YOUR ROBOTICS EXPEDITION KIT

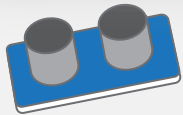


Build the **Walker**, your own Mars Creature, and code it to **walk, dance, and stop** by sensing obstacles.



Build your **Rover** to escape by **racing away** and **steering** using your sensor.

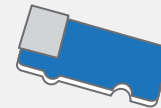
WITH YOUR SENSOR EXPLORER



Play **Ultrasonic Drum** and **Security Zone** with the Range Finder



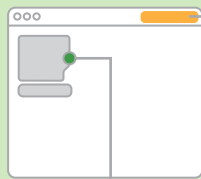
Play **Color Coded** with the Color Sensor



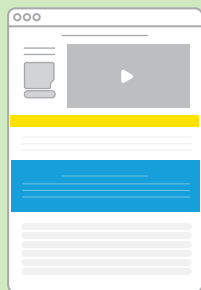
Play **Thermoodstat** with the Temperature Sensor

EDUCATOR QUICK START TOOLS

On MAKE.PLAYPIPER.COM



Use **Google Single Sign On (SSO)** as an Educator to access more Make features.



Check out our **Piper Make Teacher Resources**, with curriculum guides.

! Educator Pro-tip: Signed-in educators can Ctrl + Click (or CMD+Click on Macs) on code blocks in the tutorial to copy them into the workspace



Share tutorials to your **Google Classroom** using the Share to Classroom Icon



Download code in the workspace as an embedded PNG to your **Google Drive**



Import code from embedded PNGs in your Downloads folder or Google Drive.



Watch Video Descriptions of each tutorial to understand the build process



See CS, ELA, and ELD standards alignment. Curriculum is CSTA, WIDA, ISTE, and MITECS aligned.



Expand steps to get an overview of steps in the tutorial experience.



Get your Piper Make at playpiper.com and start exploring at make.playpiper.com.

