

Robo Wunderkind STEM Program

GRADE LEVELS:

K-5

Educational Setting:

Both in school and out of school.

Award Provides:

- 12 Modular Robotics Kits
- Robo Wunderkind Coding App
- STEAM Hub (web-based content platform that holds standards-aligned curriculum and support resources)
- 1:1 Robo Wunderkind mentoring calls (up to 10)

Additional Cost(s) to Awardee in 2024-2025:

- None

Approximate Sustainability Cost After Award Period:

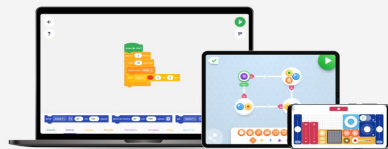
- \$4,900 building license for program renewal

2024-2025 STEM Scale-Up Program Summary:

Robo Wunderkind is a comprehensive STEAM program for K-5 schools that works right out of the box. Our robotics and coding platform empowers students to design and code their wildest imaginations. Our program offers easy-to-use building blocks and a series of age-appropriate coding apps that develop computational thinking skills and spark a curiosity for STEAM in young learners.

The modular robotics kit allows students as young as five to prototype, design, and build robots in no time, using the engineering design process. The color of our blocks represents functionality: orange for sound, yellow for light, blue for motion, green for electrical connections, and red for sensors like distance, motion, and light. With a wide range of features, students' robots are only limited by their imagination!

The best hands-on building blocks for K-5" for robots and "Visual apps working on all devices" for apps



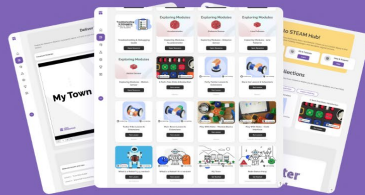
Flashlight

Difficulty level



Friendly Robot

Difficulty level



Standards-aligned curriculum & on-demand PD resources

Robots truly come to life with our coding app. The Robo Wunderkind app has three interfaces - Robo Live, Robo Code, and Robo Blockly. Thanks to an intuitive icon-based coding interface, prior coding experience is not required to create complex programs for any type of robot. Further, the visually based coding experience found in Robo Live and Robo Code make coding accessible to all students as they require no reading skills to use.

STEAM Hub is a content platform hosting a comprehensive library of standard-aligned lesson plans, coding challenges, and playful and customizable curricula for grades K-5. All lessons are turnkey and ready-to-run to decrease teacher workload. Further, STEAM Hub hosts professional development (PD) resources that can be consumed on-demand. We design our PD resources intending to empower all teachers with the skills, strategies & confidence to effectively teach coding and basic robotics in various lessons.

Requirements to Implement the Program:

- Each modular robotics kit comes with a USB charger to keep your robot's battery charged. We recommend schools purchase a USB charging hub so multiple robots can be charged simultaneously.
- The Robo Wunderkind coding app is compatible with iOS, Android, macOS, Chrome OS, and Windows and thus can run on mobile devices, tablets, notebooks, Chromebooks, as well as desktop computers.
- Educator(s) must participate in the STEM Council Scale-Up Educator Survey.

Website:

www.robowunderkind.com

Videos:

<https://rb.gy/j9y2m0>

Social Media:

- Insta: <https://www.instagram.com/robowunderkind>
- FB: <https://www.facebook.com/groups/wunderteacher/>
- X: <https://twitter.com/RoboWunderkind>

Informational Webinar(s):

Join us at the upcoming Scale Up with Robo Sessions to learn more (a recording will be available)!

REGISTER NOW

January 18, 2024
4:30 PM CST

January 23, 2024
7:00 PM CST

Iowa Standards Alignment:

Our curriculum library hosts Iowa’s Academic Standards-aligned content integrating STEM into ELA, math, and science. More detailed information on the selection of our K-2 content and its alignment to the Iowa’s Academic Standards for ELA, Math, and Science can be found [here](#).

In addition, the Robo Wunderkind program is your best resource for building K-5 students’ computer science skills outlined by the Iowa Computer Science Standards. Any time students build and code robots, they work on key standards that build their knowledge of computer science and coding while practicing essential computational thinking skills. Key standards include:

- 1A-AP-08 Model daily processes by creating and following algorithms (sets of step-by-step instructions) to complete tasks.
- 1A-AP-10 Develop programs with sequences and simple loops to express ideas or address a problem.
- 1A-AP-11 Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions.
- 1A-AP-14 Debug (identify and fix) errors in an algorithm or program that includes sequences and simple loops.

Professional Development:

Duration: 6 hours
Dates: July 15 - Aug 9, 2024
Location: STEM Regions

Photos:



STEM Scale-Up Program Application Link: www.iowaSTEM.org/Scale-Up-Application