# The Barobo/C-STEM Solution

With our university partner, the C-STEM Center at the University of California, Davis, Barobo develops hardware, software, and curricula to engage students with hands-on, integrated learning of math and CS/STEAM using coding and robotics.



#### **Success Stories**

- High school: In a C-STEM Algebra 1 class with 84% "at-risk" students, they outperformed the district average by 15% on the district-wide final exam, with a score of 83%.100% of these students passed Algebra 1, and their subsequent Geometry and Algebra 2 classes.
- Middle school: In an Integrated Math 1 with Coding and Robotics course, 94% of the students exceeded state math standards compared to only 53% in comparison classes.
- Elementary school: When the C-STEM curriculum was used in a 3rd grade class over a four-year period, there was a 72% increase in the number of students meeting or exceeding state math standards, from 51% of the students to 88% (the highest level district-wide).

"As a teacher of mathematics for the past 28 years, I have to say that this is the best program I have worked with to inspire and focus on most struggling learners in Algebra."

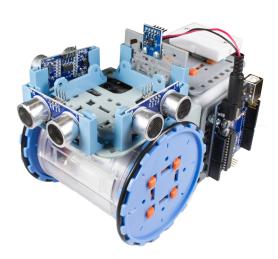
Susan Johnston, Math Teacher
 Livermore High School, California

To learn more, contact us at: info@barobo.com 530-746-8260

www.barobo.com www.roboblockly.com



Learning
Math and CS/STEAM
with
Coding and Robotics

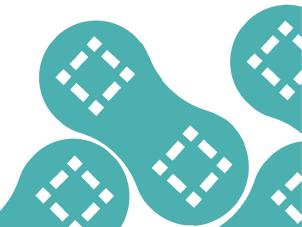






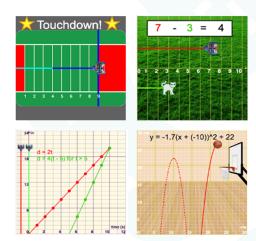






### **Standards-Compliant Curricula**

- State-standards-compliant Mathematics with Robotics, CS/STEAM with Robotics, and Afterschool and Summer Robotics Camps for Accelerated Math Learning curricula for all levels of K-12
- Over 8,000 math, coding, and robotics lessons and activities, including drawing, animation, music, language translation and more



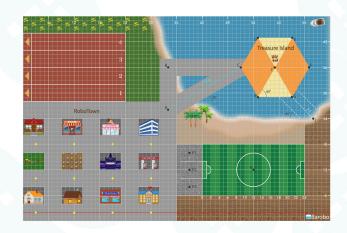
## **Powerful Student-Friendly Software**

- RoboBlockly cloud-based software works in a browser (www.roboblockly.com)
- Hands-on student engagement using visual and interactive coding and robotics teaches students real-life skills
- Control both virtual and hardware robots with the same code
- Low floor and high ceiling: drag-and-drop coding for beginners, text-based programming for advanced students
- Full Classroom Management System for teachers to assign personalized homework, provide feedback, and create assessments

#### **Innovative Modular Linkbot Robots**



- Over a decade of research, development, and in-class testing
- Reconfigurable modular robot with rechargeable battery lasting up to 8 hours
- Wirelessly control multiple robots at the same time
- Multiple Linkbots and accessories can be easily snapped together to build creative robotic systems
- Easily integrated with Arduino or Raspberry Pi for sensor-based robotics and STEAM makerspaces
- RoboTown, RoboVillage, Geometry, and MathGrid activity mats available for creative robot activities



## **Student and Teacher Approved**









"For distance learning, the C-STEM work was our most successful work we did. Completion rates with the C-STEM curriculum were near 100% in classes compared to most other assignments, which would vary from 30 to 70%." Rosalie Sinapi, Principal, Los Altos Elementary

"I like how I can use the curriculum to integrate coding and hands on math to bring math alive for the students ...Fun, exciting, and lots of opportunities for kids to learn from their mistakes." Catherine Ouellette, Kindergarten Teacher, Hacienda La Puente USD

"Oh my gosh! I barely can contain myself...soooo fun!!!
So challenging and so rewarding at the same time!!!"
Jessica Fernandez, Math Teacher, Glen Edwards
Middle School