Cyber Robotics Coding Competition

Cyber Robotics Coding Competitions are online events, coding competitions, run at the district, state or regional level where students and schools compete online or in person to showcase their STEM skills.

Cyber Robotics Coding Competitions are interactive, fun, and exciting, providing students and educators with the opportunity to learn how robots work, to build coding & robotics skills with real or virtual 3D robots, and to expand their knowledge of STEM careers. In CRCC, students learn workforce relevant skills.

The flexible, low-barrier, high-impact education model provides key stakeholders in workforce development with the opportunity to help all students nationwide acquire STEM skills and the confidence to envision a STEM career.

**WORKPLACE RELEVANT SKILLS**

- Computational Thinking
- Self-Directed Learning
- Creative Problem Solving
- Time Management
- Digital Literacy
- Teamwork

**CORE VALUES OF CRCC**

**Real-life Coding Skills and Tech Literacy**
Help students learn and achieve proficiency in technology and coding that in-turn enables them to participate in computer science pathways and discover new career options.

**Inclusiveness**
Make coding and robotics accessible to all students by using the CoderZ online platform.

**Diversity**
Promotes high percentages of girls and minorities in each competition, opening STEM to all students from all backgrounds.

**Accessibility**
Reach all schools and learning environments, including urban and rural schools, clubs and with no previous STEM programs.

**Measurability**
Enables metrics that measure and monitor learning objectives.

**Excellence**
The competition is dedicated to improving the reach of STEM education and to help all students to achieve academic and personal excellence in STEM.

**Educator PD**

1-2 weeks before Boot Camp

Objective: Preparation and educator engagement.

**Boot Camp**

Virtual, highly scaffolded sandbox for students and educators to begin learning about coding and robotics on the competition platform. Includes 50+ missions and up to 8 hours of activity.

Objective: Skills development; Recognition and invitation to Finals for school population and female participation ratios.

**Qualifiers**

5-10 days

Competition phase during which individual students compete to earn points for their schools. Includes 20+ progressively more complex missions.

Objective: Earn points to qualify schools for Finals

**Finals**

Half day+ event

Teams of students represent their schools to compete in-person. Includes 5+ advanced missions.

Objective: Earn points to win awards and recognition

For more information: info@iscefoundation.org
**CRCC Outcomes 2018/19**

**2017/18 Season**
Four competitions
Over 31,000 Students

**2018/19 Season**
14 US states, 3 International events
80,000 students

**Teacher Testimonials**

“We absolutely loved this program and it gave students an opportunity to explore robotics/programming more!”

“THANK YOU for organizing such an amazing event”

“Being part of a state-wide competition makes it SO much more exciting!”

“I can’t say enough about your program. It engages students in STEM and is FUN!!”

“My students LOVED the competition!!! Because it was online it gave them all equal opportunity to participate!”

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**2018 100 Club**
Texas: 37
Pennsylvania: 34
Connecticut: 7
Maryland: 12
New York: 15
New Jersey: 19
California: 5
New Hampshire: 55
Virginia: 5
Nevada: 15

100 Club members completed all 103 missions in Boot Camp and Qualifiers
Partnered with STEM and Education Leaders

Sponsored and Supported by Industry

79,166 students

Out of Over 200 Educators Surveyed....

• 100% believe CoderZ is engaging for students
• 98% believe the content is relevant for CS/STEM
• 80% are interested in using CoderZ STEM curriculum in school
• 92% would participate in CRCC again
• 90% would recommend to other teachers to participate in CRCC
• 56% offered to become CRCC Ambassadors

Bring CRCC to your schools
Contact: info@iscefoundation.org
Cyber Robotics Coding Competitions Reach

Mission
Our mission is to accelerate the integration of STEM technology education programs in schools to support a diverse skilled 21st Century STEM workforce capable of advancing and prospering in the Innovation Economy.

Vision
Our vision is to resolve issues of diversity, inclusion and access to state-of-art technology educational programs for schools by leveraging e-learning environments and delivering in-demand STEM skill building.

Partner with Education

Educators
The CRCC program enables administrators and pedagogic leaders to influence teachers and students directly. This is a broad program that involves all levels of education.

Sponsors
Industry, educational organizations, non-profits and local and national government can invest directly in a program for the benefit of students that promotes the highest level of educational goals and promotes job readiness.

Students
Students of all types, with diverse interests and different skill levels can all participate in CRCC. The gamified approach, competitive spirit and focus on participation over excellence, involves more students than any other school activity.

What’s in it for Educators?
- Motivational STEM program = high student involvement
- Community and local industry involvement
- Promotes diversity and inclusiveness
- Designed for accessibility, cost effectively
- Tech literacy for all
- Promotes in-demand career skills

CRCC Develops Workforce Relevant Skills

Computer Science Topics
- Computational Thinking, Conditional logic
- Code structure, Loops, Functions, Variables
- Inputs and outputs

Applied Mathematics Topics
- Calculations
- Geometry - shapes, polygons and angles
- Ratios, Scaling
- Nested arithmetic calculations

STEM & Engineering Topics
- Motor Control
- Sensor - Touch, Gyro, Ultrasonic, Color, ...

Soft Skills
- Strategy development
- Creative Problem Solving
- Critical Thinking
- Teamwork
- Time-management

Serves all Communities
- Public schools, private schools, charter schools
- Inner Cities
- Rural Communities
- Schools with no Computer Science Education
- Schools with some Computer Science Education
- All Genders
- Educators of all backgrounds and skill levels

2018 Outcomes
211,788 missions completed
204 participants completed all 103 missions
33% rural schools
38% from schools WITHOUT Computer Science
240 Title 1 schools
66% teachers have no experience teaching Coding

Bring CRCC to your schools. For more information: info@iscefoundation.org