

	RoboCupJunior Rescue	RoboCupJunior OnStage/Soccer	RoboCupJunior Maze	ZeroRobotics	USACO	C-C++ Certification	*** Independent Project
Time Demand	High	Highest	Highest	Moderate	Moderate	Moderate	self-adjustable
Type	Competition	Competition	Competition	Competition	Exam	Exam	Project
Venue	Away	Away	Away	Online	Online	Away	Online
Hardware	Mindstorms / VexIQ / Arduino / Raspberry PI	Mindstorms / VexIQ / Arduino / Raspberry PI	Mindstorms / VexIQ / Arduino / Raspberry PI	None	None	None	self-define
Site:	robocupjunior.org	robocupjunior.org	robocupjunior.org	zeroRobotics.mit.edu	usaco.org	cpp-institution.org	self-create
Add'l cost to SR Fee	\$50 - \$100	\$50 - \$100	\$50 - \$100	\$0	\$0	\$0 for top 10 students. \$300ea. For Others.	\$0
Grd.	6 to 12	6 to 12	6 to 12	9 to 12	***Any	***Any	Gr. 10+
Math	Algebra I	Algebra I+	Algebra I+	***Pre-Cal	*** Algebra I+		Algebra II+
Programming (minimum)	Robotics Projects with RobotC - Level III	Algorithms in C/C++ - Level I	Algorithms in C/C++ - Level II	Algorithms in C/C++ - Level I	*** Algorithms in C/C++ - Level I+	Algorithms in C/C++ - Level II	Algorithms in C/C++ - Level III

*****Pre-Cal** Linear Algebra and Motion in Physics will be a big plus.

Since most high schools do not even offer Linear Algebra, students learn as they go. Most students do not cover Physics/Motion until Senior year. Therefore, most below 12th grade participants also learn it as they go.

*****Any** Usually Grade 9 and above

***** Algebra I+** Algebra I+ for Silver. However, knowledge in Statistics and Combinatory math will be greatly helpful, esp. for Platinum.

***** Independent Project** Will require an individual very self-disciplined and possess aptitude to self-learn.

***** Algorithms in C/C++** Algorithms in C/C++ - Level I-II for Silver. Level II-III for Gold. Level IV + Combinatorial Math for Platinum