





REGISTER NOW

Schedule At-A-Glance

Grade 5 to 8

	Wk1:6/24-28 • Wk2:7/8-12 • Wk3:7/15-19 • Wk4: 7/22-26 Wk5: 7/29-8/2 • Wk6:8/5-9 • Wk7: 8/12-16 • Wk8: 8/17-23	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8		
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Grades 5 to 8											
	Robotics Projects Levels Progression: B & I <u>AM_or</u> PM or AM+PM • Mon to Fri	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
	Computer Science (Beyond Coding) Levels Progression: B & I <u>AM_or</u> PM or AM+PM • Mon to Fri	.	.	.	☑	☑	☑	☑	.	.	
	Robotics FACE-OFF Contest Week Levels Progression: A Week of Full-Day Program 9 AM to 3 PM • Mon to Fri	.	.	.	.	.	.	1 WK Full Day 9 to 3	.	.	
Grades 6 to 9											
	<u>ZeroRobotics</u> Competition Groups Levels Progression: 4 Weeks Program 3 different time slots • Mon to Fri	In-person: 10 AM-12 PM or 1- 3 PM or Online 3:30 PM-5:30 PM					.	.	.	.	.
For All											
	Special Fun Workshop Chess (taught by Grand Master) (* Must register at Dean of Chess website) https://deanofchess.com	☑	.	.	.	



Robotics Projects

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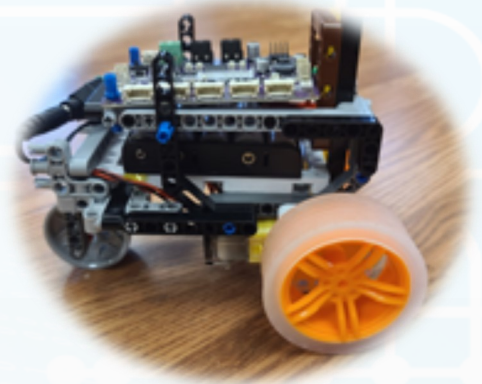
Grade 5 to 8 • AM or PM • AM+PM • M-F

PROGRESSIVE LEVELS B, I, II



Characteristics

- Hands-on Robotics Projects everyday
- Adhere to Robotics Engineering Disciplines. Cultivate the habit in building portfolio.
- Position mathematics as a thinking tool—from Algebra, Geometry to Trigonometry for upper levels
- Focus full automation in all levels—problem-solving everyday.
- Approximately 80% software development (text-based programming), 20% mechanical development.
- Engage in active learning and higher order of thinking.
- Dive in Application-based, Open-ended but Goal-oriented Challenges.
- Performance Report:
 - Online reporting system to reflect daily progress.
 - Weekly Progress Report with Recommendation .



Each week is filled with various fun robotics projects interlaced with various important robotics and programming concepts. Here shows a short list:

- ★ Don't Run Over the LEGO Man!
- ★ Whack-a-Mole!
- ★ RoboRacing!
- ★ Break The Secret Code!
- ★ Sumo Battle!
- ★ Tomb Raider!
- ★ Pop The Robot-ballon!
- ★ Maze Runner!
- ★ Treasure Hunt!
- ★ More ...



Direct Benefit:

- Experience with true engineering process, and computational thinking mindset.
- To gain competitive edge for any STEM hands-on activities, especially robotics engineering at school
- Level II students will join the pre-competition group in the Fall.



Robotics Projects

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Grade 5 to 8 • AM or PM • AM+PM • M-F



Learning Objectives

Level B: Exploratory/Beginner Level

- Learn the rudimentary programming concepts
- Familiarize with an Open-source hardware platform (non LEGO)
- Hands-on learning and build engineering mind-set: the process of breaking simple complexity and abstraction into simple small sub-tasks. Design with Flowchart.

Level I:

- Work with more varieties of important sensors and motors.
- Exercise more complex semantics & apply two single levels of abstraction and control structure.
- Design and develop increasingly complex projects.

Level II:

- With more sophisticated sensors such as Inertia measurement unit, time-of-flight, multiple I2C sensors via multiplexer.
- Gain more advanced robotics and programming techniques such as simple feedback control, designing state machine, multiple levels of abstraction & control structures design.
- Work with complex challenges from external robotics competition.

Learning Tools:

- PICO—microcontroller
- Arduino programming IDE



Half-Day Sessions

AM: 9-12 PM: 1-4

Weeks: 6/24, 7/8, 7/15, 7/22, 8/5, 8/12, 8/19. Choose only one week, or multiple weeks when students will continue to progress and advance to high levels at their own pace.



(Target American CS League
Competition Junior Division)

Computer Science Beyond Coding

REGISTER
NOW

Grade 5 to 8 • AM or PM • AM+PM • M-F



Learning Objectives

- Design/analyze with flowchart diagram, pseudo-coding depending on their levels.
- Solve a problem by recognizing pattern, and then resolve them to programming expressions
- Simple Abstraction, sequencing, loops, modularizing, conditionals, data usage. and scalability (for the more advanced level).
- Systematic Trouble-shooting and Debugging Skills - Very crucial.
- CS Concepts:
 - Number based system—important bases used in the digital world
 - Prefix/Infix/Postfix
 - Bitwise operation
 - Introductory in Linear Data structure
 - Introduction to Boolean Algebra (*used to analyze and simplify digital circuits or digital gates*)
 - *And more... (ref. <https://cs.stormingrobots.com> for details)*

Learning Tools:

- Windows : visual studio community C/C++
- Mac/Linux: online GDB



Direct Benefits:

- Help them to excel in robotics activities.
- Heighten problem-solving and critical thinking skills in our technology world.



Half-Day Sessions

AM: 9-12 PM: 1-4

Weeks: 6/24-28, 7/8-12, 7/29-8/2. Choose only one week, or multiple weeks when students will continue to progress and advance to high levels at their own pace.



ZeroRobotics Competition

REGISTER
NOW

Grade 6 to 9 • 10-12 or 1-3 or 3:30-5:30 • M-F • 6/24 to 7/26

SATELLITE PROGRAMMING

COMPETITION (RUN BY MIT/NASA)

Zero Robotics / middle school program is a 4-week summer highly competitive programming competition in which middle school students program miniature satellites inside the International Space Station.



2023 FIRST PLACE Winning Team SR
Quark Charm Junior



What do students do in the competition meetings

- Develop Strategy development in the realm of Space Engineering. Write program to navigate the Astrobees satellites simulators to complete a mission developed based on NASA's current research.
- Develop program in C language using the online IDE provided thru MIT.
- Face off in the semi-finals in a national tournament.
- At the ISS FINAL, astronauts load student-developed code onto the satellites onboard the ISS. Astronauts then serve as referees in the FINAL. Event is streamed LIVE to student viewers on Earth.



Learn More: <https://www.stormingrobots.com/prod/mitZero-ms.html>

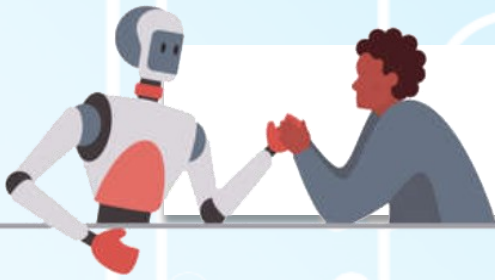


4 weeks of 2-hr Daily (M-F) Sessions

Choose from (In-person) 9-12 or 1-3 or (Online) 3:30-5:30

Weeks: 6/24 to 7/26. (no class: 7/1 - 7/5)

ISS Final (tentative): One day in the week of 7/29-8/2. (online event)



Robotics

FACE-OFF Week

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Grade 6 to 9 • 9-3 • M-F • 7/29 to 8/2

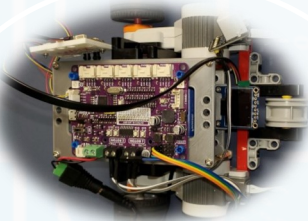
Two Daily Winners earning prizes!

Embark on a daily adventure of discovery and innovation with our exciting programming and robotics challenges!

AM: Join us for a thrilling programming session where you will dive into the world of coding, encountering errors that await you to uncover and fix. *It's a journey filled with learning, collaboration, and problem-solving.*



PM: Brace yourself for the mystery of the secret robot challenge. Face a malfunctioning robot and unleash your creativity to unravel its mysteries. *Tackle the unexpected, think on your feet, and find innovative solutions to make the robot come to life.*



The thrill of competition awaits as you strive to be one of the two daily winners,

Are you ready to take on the challenge, elevate your programming skills, and become a master of robotics?

Join our daily sessions, and let the excitement unfold as you conquer the daily secrets that await you. Sign up now to unlock your potential and embrace the world of coding and robotics!



Full-Day Program

July 29 to August 2: 9AM to 3PM



POLICY

PAYMENT AND CANCELLATION POLICY

REGISTER NOW

All staff assignment and classes preparation work has been completed according to registration by May. This refund policy is put in place in order to conduct proper coordination of staff and classes management.

- Minimum Deposit: \$100 deposit is required to reserve a seat.
- \$50 from the deposit is *non-refundable* portion ; but \$100 fully applicable towards tuition.
- the remaining balance can be paid in full, or broken into monthly installments until one week before class .

Regarding Switching classes: No Workshop/Week Transfers are allowed within two weeks prior to your workshop.

Regarding withdrawal / Cancellation:

Notification Received	Refund Deadlines
Prior to May 15th	100 % minus \$50 non-refundable deposit.
May 15th to June 15th	50 % minus \$50 non-refundable deposit
After June 15th	No Refund*
<i>*The only Exception: "unforeseeable" medical reason. Letter of verification from your child's doctor is required.</i>	

Important NOTES:

- "No show" does not negate your obligation of payment.
- If a participant repeatedly violates the code of conduct or commits serious disciplinary offenses, participation will be terminated at the administration's discretion without refund..

<https://summer.stormingrobots.com>
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