ENVISION ROBOTICS

Program Guide
Ages 9 - 13 years

✉ **info@envisionrobotics.com**

📞 **647-502-6319**

STEM Science, Technology Engineering, Math
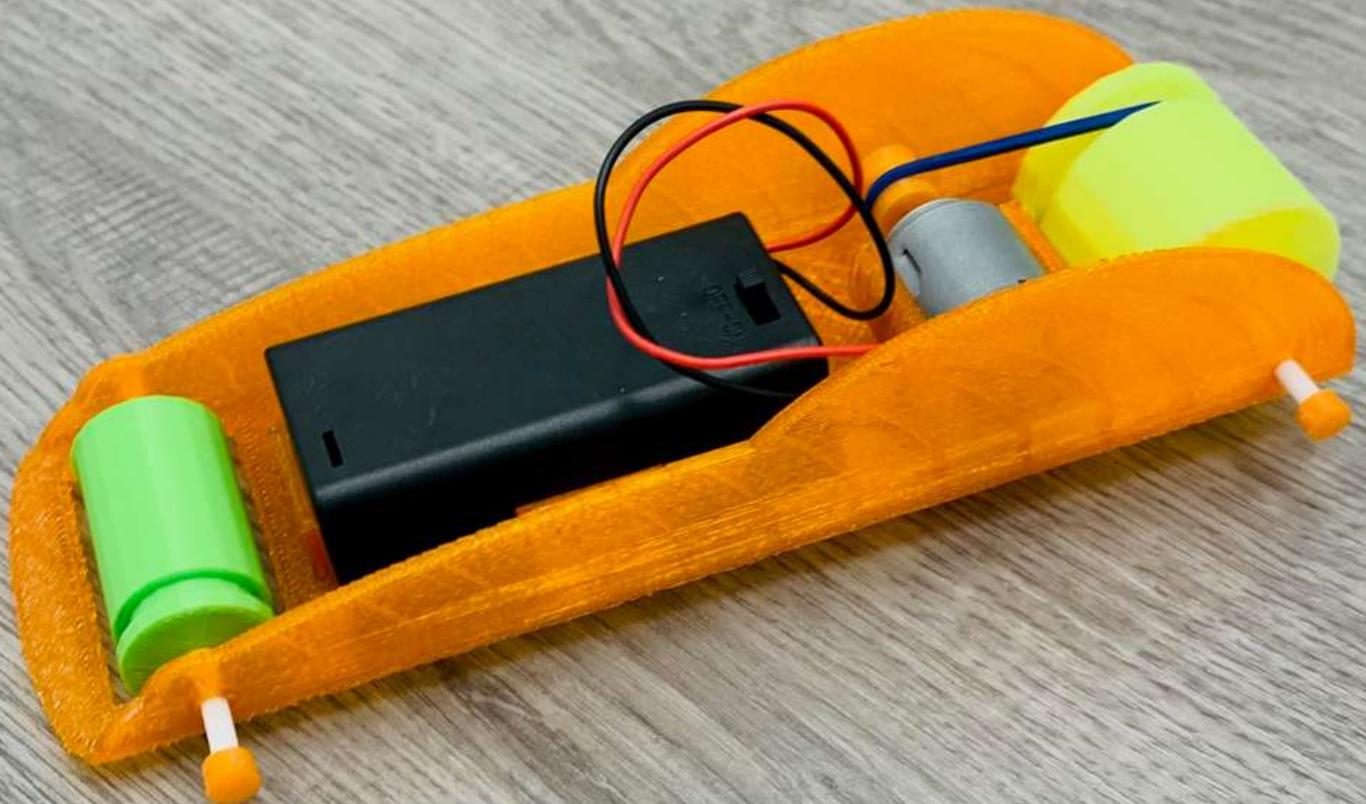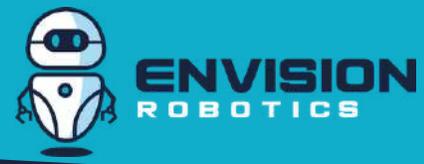
GENERAL INFORMATION

Camp Hours:	9:00 AM - 4:00 PM
Location:	8220 Bayview Avenue, Unit #10, Markham
Cost:	$450 + HST per week (4-Day camps are $360 + HST) 10% Sibling Discount.

Before (8:00 - 9:00 am) and After-Care (4:00 - 5:00 pm) options are available at $7/hr per child.

Optional Pizza lunch will be available on Fridays and details will be provided to registered parents.

DAILY SCHEDULE

9:00 - 9:30 AM	Morning Stations, Drawing Activity, Previous Day Review, Goals and Plan for the Day
9:30 - 10:45 AM	STEM Activity Part #1
10:45 - 11:00 AM	MORNING BREAK
11:00 - 12:00 PM	STEM Activity Part #2
12:00 - 12:30 PM	LUNCH - Bayview Lane Park (large park behind plaza)
12:30 - 1:30 PM	PLAYGROUND / BASKETBALL COURT / SPLASH PAD
1:30 - 2:30 PM	STEM Activity Part #3
2:30 - 2:45 PM	AFTERNOON BREAK
2:45 - 3:45 PM	STEM Activity Part #4 OR GROUP ACTIVITY
3:45 - 4:00 PM	Windown / Wrap Up

Our camps all have themes and are multi-disciplinary. Robot designs are new every year as are other core activities. This ensures campers returning to our camps year-after-year get the best experience.

No prior experience is needed to attend our STEM camps and we welcome first time campers! We provide the necessary support and tools to be successful. Campers may join for 1 week or multiple weeks. Campers must be 5 yrs old at the time of camp.
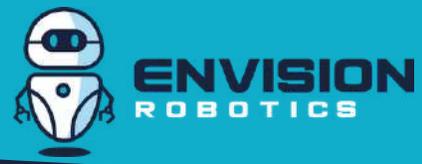
Camp FAQs

Pick-Up / Drop-Off

We welcome campers between 8:55 - 9:00 am with afternoon pick-up between 3:45 - 4:00 pm, unless extended care is optioned.

Snacks and Lunch

Campers should bring a morning and afternoon snack, lunch, and refillable water bottle. An optional pizza lunch may be available on Fridays and details will be provided to registered parents.

Will my child build the same robots as last year?

No. We've created NEW robot builds and STEM themed activities for the kids.

Do I need to register multiple weeks?

While we appreciate parents/campers that register for multiple weeks there is no requirement. Each week is a descrete program.

Do we go outside?

Our new location features a nearby park with many amenities including basketball courts, picnic tables, several play areas, and a large splash pad. We have soccer balls and basketballs for the students to use.

Each day we spend up to 90 minutes outdoors at the local park. Lunch is 30 minutes and students get 60 minutes outside playing at the park.

Sibling & Refferal Discounts

Sibling discounts are 10% off the second/third at the time of registration. Referral credits (10% of the camp fee) are issued for a successful referral. No limit on the number of referrals. Organize a group of friends to attend and gain credits towards our programs.

Summer Camps 2023
Kids 9 - 13 Yrs

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DATES & THEMES

Each year we work hard to make our camps the best in the GTA!   We do this by providing unique STEM programming that is conducted in a safe, fun, and engaging educational environment. Each week <u>two</u> different camp themes are available for the 9-13 yr age group. Each camp theme is limited to <u>8 spots to book early to secure your spot.</u>

If you joined these camps last year, don't worry - we have all NEW robot designs and STEM activities this year

Robotics Camps

Our Robotics camps combine robotics with 3D design and 3D printing. With BattleBots and Hill Climber camps will build, code, and 3D design/3D print components for their robots. With RoboMaster camps students will use the DJI S1/EP Core robot platform (built) and 3D design/3D print components for use with the robot.

BattleBots:	July 10 - 14	**Hill Climber:**	July 31 - Aug 4
RoboMaster:	July 24 - 28, August 21 - 25		

Budding Genius Camps

Our Budding Genius camps are designed to introduce students to new technologies and platforms. This year we've introduced many new options.

Elastic-Powered Car:	July 3 - 7	**Drone:**	July 3 - 7, Aug 28 - Sept 1
Soap Making:	July 17 - 21, August 14 - 18	**YouTube Creator:**	July 10 - 14, August 8-11 (4-day)
River Rush:	July 24 - 28, Aug 28 - Sept 1	**Drifter & Dragster**	Aug 21 - 25
Intro to Python:	July 17 - 21	**Intro to Flowlab:**	Aug 8 - 11 (4-day)
Claymation:	Aug 14 - 18	**Ping Pong Canon:**	July 31 - Aug 4

Summer Camps 2023
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☑ BattleBot Camp (July 10 - 14)

BattleBot camps are high-energy and fun as kids use their creativity and skill to 3D design/3D print their battle components for their EV3 robot. This years base BattleBot is a "track robot" powered by two large motors with two additional motors to wield the battle components.

☑ Hill Climber (July 31 - Aug 4)

Campers will learn about design requirements to build vehicles that are able to scale steep inclines (think dune buggies in hill climbing, hill climbing motorcycles, etc.) and then will design, build, test, and compete with their hill climbing robot on a steep incline. Students will also 3D design/3D print components including wheelie bars to better keep their Hill Climbing robot from flipping over!

## ☑ RoboMaster: Going Nuclear (July 24 - 28, Aug 21 - 25)

RoboMaster robots are beasts weighting almost 10 pounds and well equipped for heavy duty work! Our RoboMaster theme this year is Going Nuclear! Students will learn about Nuclear Energy, Nuclear Power Plants, and strategize and code their robots to retrieve nuclear rods in our damaged reactor. Students will also 3D design/3D print their nuclear rod using a special magnetic "metallic iron" filament and capsule to store their rod using two-colour/dual-filament printing.

☑ Elastic Powered Car: (July 3 - 7)

Students enrolled in our Elastic Powered Car camp will learn about potential and elastic energy as they 3D design/3D print an elastic powered car. This is a great camp project for students that want to do learn about intricate 3D design and 3D printing. Students will race their cars once completed.
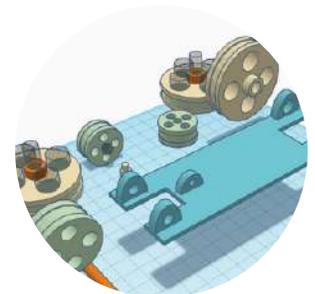
☑ Soap Making: (July 17 - 21, Aug 14 - 18)

This is a new camp for 2023 and we are very excited. Our SR campers will learn to 3D design/3D print their own flexible soap molds using TPU flexible filament. Campers will use their molds to create different types of soap using coloring agents and scents.

Drone: Laser Beam (July 3 - 7, Aug 28 - Sept 1)

Everyday Drones are being used in a increasing number of consumer and industrial uses. Campers will learn about how drones can be equipped with lasers and will 3D design/3D print laser mounts for their Drone and engage in come friendly competition to tackle a set of challenges requiring focus, control and precision.

River Rush (July 24 - 28, Aug 28 - Sept 1)

River Rush is our first camp to incorporate water! Students will learn how air propulsion can be used to power different types of vehicles. And, they will then 3D design/3D print a balloon powered boat and then engage in some friendly competition to see which boat is the fastest/most effective design using a kiddie pool.

YouTube Creator (July 10 - 14, Aug 8 - 11 (4-day))

Our new STEM Studio features a dedicated recording studio space with 3 high-end condenser mics, boom arm, green screen, raise/lower desk, gimble, and lots more! In our very popular YouTube Camp campers will learn about YouTube as a platform, create their own YouTube Channel (private or public), record and edit videos, create channel and thumbnail art, learn to screencast, design their own logo, digitally print/cut their logo on vinyl which they will then use to personalize a baseball hat. A hat is provided to each registered student.

Drifters and Dragsters (Aug 21 - 25)

Campers will 3D design/3D print a motorized car using a motor and battery pack. This camp is designed for students that want to learn detailed 3D design and 3D printing. Their motorized cars will drift on hard surfaces and run like a dragster on carpeted floors. Students will learn print with a variety of filament types including PLA and rubber-like TPU for tires. Campers will also engage in some friendly competition against fellow campers.
 Campers keep their project cars at the end.

Intro to Python (July 17 - 21)

Does your child have an interest in learning Python? Not sure where to start? Join our Intro to Python Camp and learn the fundamentals of coding in Python, a text-based coding language used all over the World.

Intro to Flowlab (Aug 8 - 11)

Flowlab is a video game development platform that is suitable for beginners through to experts. Over the course of the week students will have the opportunity to create platform and maze style games with hero's, moving enemies, hazards, sounds, theme music, point scoring, bonus elements, multi-levels and so much more. Come join us to start your journey as a game developer!

Claymation (Aug 14 - 18)

Claymation is an animation technique using movable clay characters and stop-motion recording. However, our camp goes above and beyond a basic Claymation camp! Campers will begin the week by 3D designing/3D printing a "inner-skeleton" with working ball joints to give their character strength and flexibility. They will also create and design their mini-studio as they develop their storyline and clay characters. Once their sets and characters are created they will create a stop-motion video. Students keep their Claymation characters and sets.

## Ping Pong Cannon (July 31 - Aug 4)

Campers enrolled in our Ping Pong Cannon camp will 3D design/3D print a working ping-pong ball launcher! This camp features lots of 3D printing and is lots of fun!   Towards the end of the camp week campers will engage in some friendly competition with their launchers against a set of challenges. Students keep their launchers at the end of the camp.
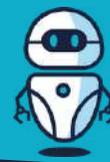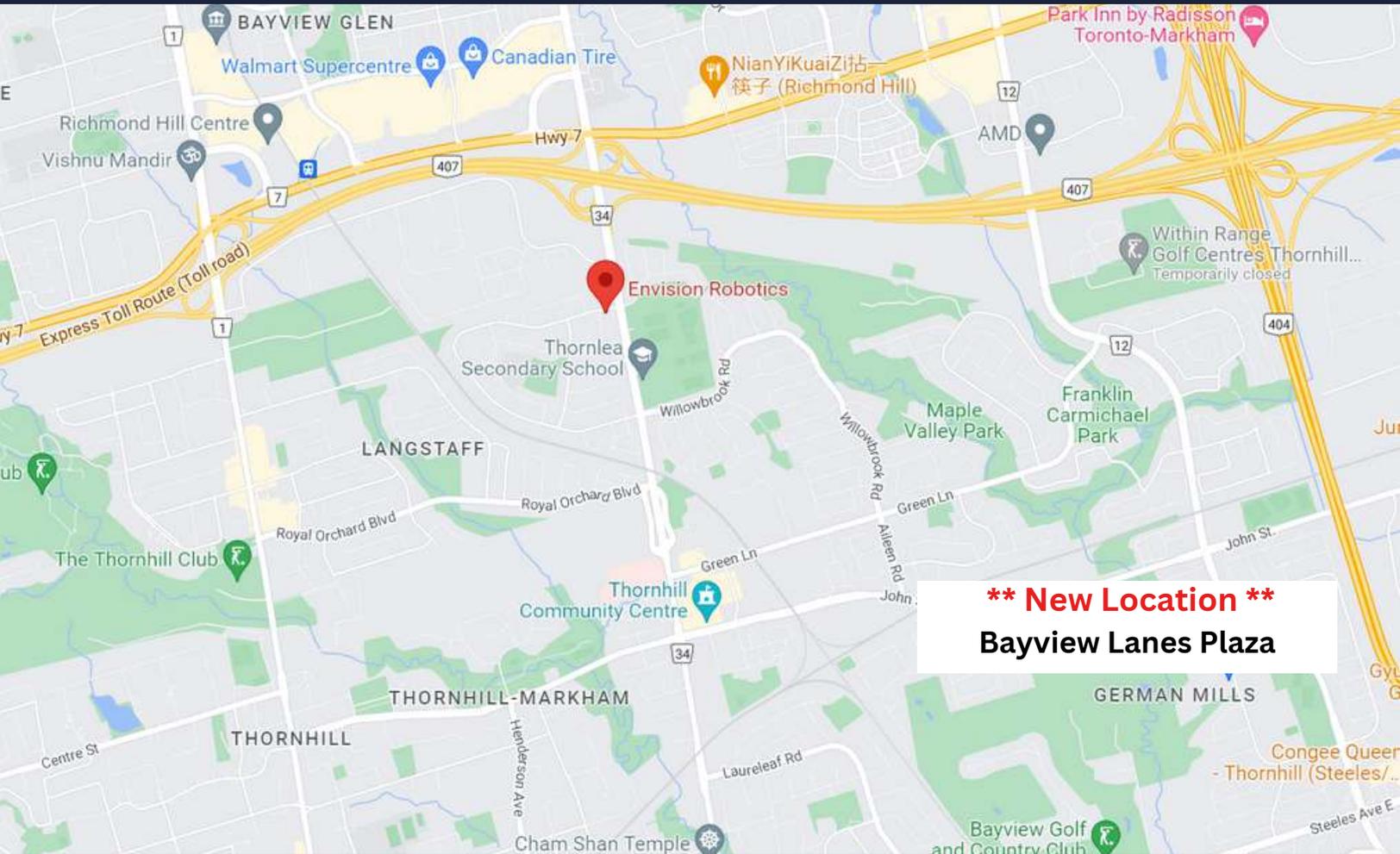
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** New Location **
Bayview Lanes Plaza

Our STEM Studio

8220 Bayview Avenue, Unit #10
(Bayview / HWY 7 area)
Markham, L3T 2S2

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info@envisionrobotics.com

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