ENVISION ROBOTICS

Summer 2024

Program Guide

Ages 9 - 13 years

info@envisionrobotics.com

647-502-6319

STEM Science, Technology Engineering, Math

Summer Camps 2024
Kids 9 - 13 Yrs

ENVISION ROBOTICS

GENERAL INFORMATION

Camp Hours:	9:00 AM - 4:00 PM
Location:	8220 Bayview Avenue, Unit #10, Markham
Phone / Email:	647 - 502 - 6319 / info@envisionrobotics.com
Cost:	$450 + HST per week (4-Day camps are $360 + HST)
Credits:	10% Sibling Discount, 10% New Parent Referral

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

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 Period #1
10:45 - 11:00 AM	MORNING BREAK
11:00 - 12:00 PM	STEM Activity Period #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 Period #3
2:30 - 2:45 PM	AFTERNOON BREAK
2:45 - 3:45 PM	STEM Activity Period #4 OR GROUP ACTIVITY
3:45 - 4:00 PM	Windown / Wrap Up / Pick-up

Our camps all have themes and are multi-disciplinary. Robot designs are new every year as are most 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.

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And YES there is a Splash Pad!

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. Please ensure nut-fee.

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 discrete program and unique experience.

Do we go outside?

Our 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 Credits

Sibling discounts are 10% off the second/third at the time of registration. Please use the correct referral code listed on the website. When booking three or more campers please request the correct sibling credit codes.

Earn Referral Credits

Take advantage of our very generous referral program. Parents that refer another parent that is new to us are rewarded with a 10% Referral Credit.

Referral Credits are calculated based on your friends first program/camp fee with us (i.e., $450 camp fee = $45 referral credit). No limit on the number of referrals. Organize a group of friends to attend and gain credits towards our programs.

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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 two different camp themes are available for the 9-13 yr age group. Each camp theme has ~ 10 spots so book early to secure your spot as our camps sell out each year!

Many of our SR camps this year are role-play, scenario based with opportunities for competing as a team with other campers. All camps are multi-disciplinary.

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

Robotics Camps

By attending our robotics camps your child will get hands on experience with the most advanced platforms and technologies in the market. Other camps in the GTA simply don't have the robotics platforms we have.

BattleBots:	July 8 - 12 Aug 12 – 16
RoboMaster:	July 15 - 19 July 29 – Aug 2
Bittle:	July 15 - 19
UGOT:	June 24 – 28 July 2 - 5 (4-day) July 22 – 26 Aug 12 - 16 Aug 26 - 30

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.

Gotta B Kool:	July 2 – 5 (4-day) Aug 19 – 23
Medieval Times:	July 22 – 26
Aeronautics Science	Aug 6 – 9 (4-day)
Drone:	July 8 – 12 Aug 19 – 23 Aug 26 - 30
Flowlab Game Creator	July 29 – Aug 2
Intro to Python	Aug 6 – 9 (4-day)

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BattleBot: "The Quest for Amethyst - Zombies vs Hunters"

July 8 - 12, Aug 12 – 16

Our BattleBot Camps have always been immensely popular and one of the most requested. For 2024 we reimagined our BattleBot Camp and made some significant changes to create a unique experience for our campers.

- **New BattleBot robot design featuring a projectile launcher, spinning targets, and a magnetized capture tool**
- **BattleBot Mat designed as a very large (12' by 8') game board where campers complete as either a Zombie or Hunter, to conduct raids to steal supplies, and of course Amethyst - the most valuable element in this apoliptic world**
- **Each camper builds their own BattleBot, randomly pics the role of Zombie or Hunter, and 3D designs/3D prints battle components for their robot**

Features

Robotics & Coding | 3D Printing (2-Colour) | Role Play / Scenario | Team Competition

- Magnet Lifter
- Projectile Launcher

BattleMat Game Board 12' by 8 '

- Students 3D Design and 3D Print Battle Components

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UGOT: Adventures in Artificial Intelligence

June 24 – 28, July 2 - 5 (4-day), July 22 – 26, Aug 12 - 16, Aug 26 - 30

Our UGOT robotics platform was just introduced into the market in January 2024 and we are pretty confident that we are the only camp in the GTA featuring this highly advanced platform!

- Modular platform with over 7 different robot designs (different designs each day)
- Advanced AI utilizing gesture control, voice activation, and more
- Obstacle creation using 3D design/3d printing and laser cutting
- Friendly team competition to complete different challenges

Spider

Features

Robotics & Coding | Advanced AI | Laser Cutting | 3D Printing (2-Colour) | Team Competition

Big Dog

Mecanum Wheels

Transforming Car

Self Balancing

The Most Advanced Educational Robotics in the Market Today!

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Gotta B Kool

Watch Teaser Video

July 2 – 5 (4-day), Aug 19 – 23

Join this camp and take being Kool to a new level!

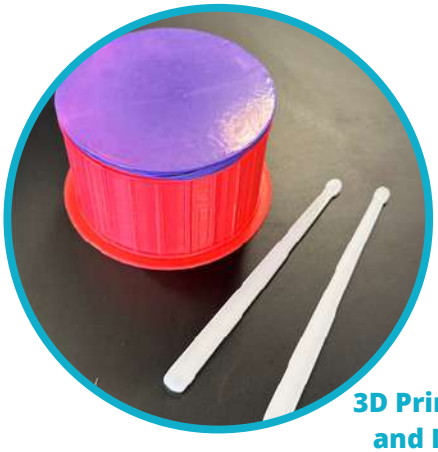
- Students will 3D design and laser cut their own personalized Guitar from 5 mm plywood
- Students will string and tune their guitar
- Students will 3D design and 3D print their own drum, and laser cut drum sticks
- Lastly, students will design their own "logo" and use the digital cutter to personalize a pair of sunglasses (supplied, 5 day)
- Students keep their projects

Personalize Glasses

Features

Instrument Design | Laser Cutting | 3D Printing (2-Colour) | Measurement & Design | Graphic Design

Laser Cut Guitar



3D Printed Drum and Laser Cut Drum Sticks

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Drone: Drop Zone

Watch Teaser Video

July 8 – 12, Aug 19 – 23, Aug 26 - 30

Reach new heights this summer with our exciting drone camp!

- We've designed a unique drone camp this year where students will compete as a team to drop targets onto a mat from around 30 m in the air
- Each student will 3D design and 3D cut a rocket from 3 mm plywood
- They will 3D design and 3D print a parachutist from rubber filament
- Both the rocket and parachutist will be attached to a parachute that is released from the drone
- Each group of students will need to take into account factors such as object shape, wind speed, timing, and more
- We use DJI Drones, the leading manufacturer of drones

DJI Drones

Features

Drone | Laser Cutting | 3D Printing (Rubber) | Measurement & Design | Graphic Design | Team Competition

Liftoff

Separation

Positioning Drone View

Decent on Route to Hit Target

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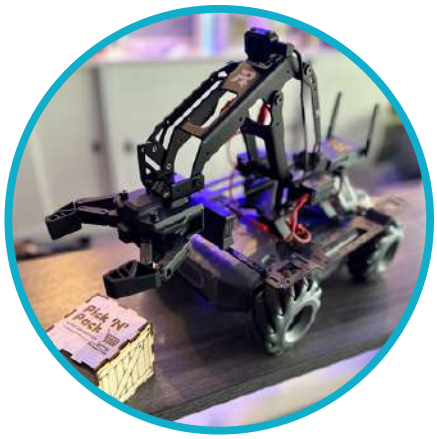
RoboMaster: Pick 'N' Pack

July 15 - 19, July 29 – Aug 2

How are companies like Amazon using robots in the warehouse to enable fast delivery? Come join our simulation camp to find out!

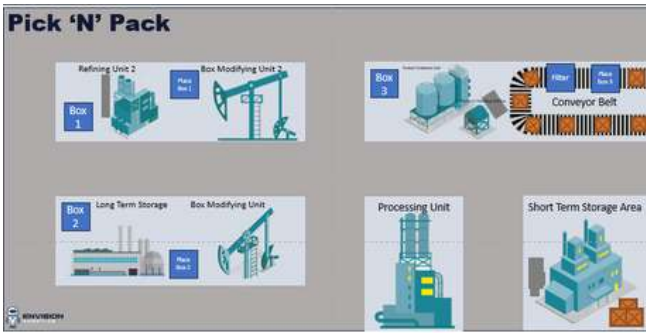
- **Campers will 3D design and laser cut their own branded box from 3 mm plywood**
- **Campers will also 3D design and 3D print (2-colour) an item that needs to be picked and shipped in their box**
- **Students will participate as teams to see which team can learn to code their robot to line follow, and pick/drop their special packages, and more!**



Features

RoboMaster Robots | Laser Cutting | 3D Printing (Multi-Colour) | Measurement & Design | Graphic Design | Team Competition | Role Play / Scenario | Advanced AI

RoboMaster - Factory Mats



Students Learn to Design and Cut their Own Box with Finger Joints

We use the RoboMaster EP Core and S1 Robots which are two of the most advanced Educational robots available.

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Bittle: The Greatest Show on Earth

July 15 - 19

Welcome to the Greatest Show on Earth! Our Bittle robots are packed with Advanced AI capabilities and can even do back and front flips!

- **Campers will get hands on learning how to control Bittle through manual control, coding, and advanced AI capabilities**
- **Students will 3D design and 3D print their own attachment for Bittle's back carrier**
- **Students will participate as teams to see which team can code Bittle to perform tricks and win recognition for putting on the Greatest Show on Earth!**

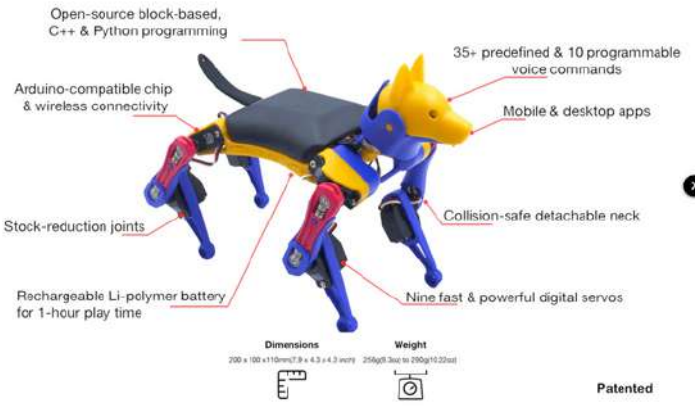
Capable of Amazing Tricks

Features

Bittle X | Advanced AI | 3D Printing (Multi-Colour) | Team Competition

Codable and Voice Activated

Bittle X



Ever seen a Bittle X in the GTA? We have not either which is why we are pumped to have these robots!

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Medieval Times

July 22 - 26

Advancements in weapon technology greatly influenced the outcome of many battles. Step back in time with us and design a working catapult!

- **Campers will learn to 3D design and laser cut a working catapult and with wheels that work to a more realistic effect.**
- **Campers will also create their own logo and personalize their catapult during the laser cutting process**
- **While each student will get a ping pong ball, they will also 3D design and 3D print a ball using flexible filament**
- **On the final day of camp, campers will compete to see which catapult can fling their projectiles the further and with the most accuracy**

Students Learn to 3D Design and Laser Cut a Large Catapult

Features

Working Machine | **3D Printing (Rubber)** | **Laser Cutting** | **Measurement & Design** | **Individual Competition**

Aeronautical Science: Above the Clouds

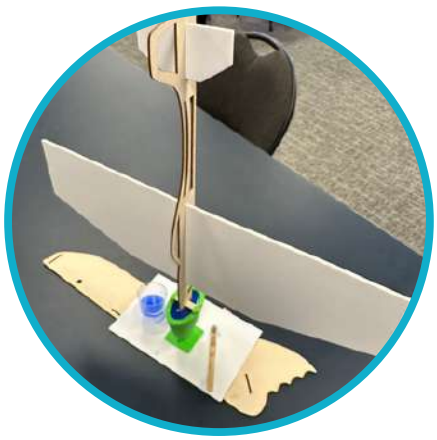
Aug 6 - 9 (4-day)

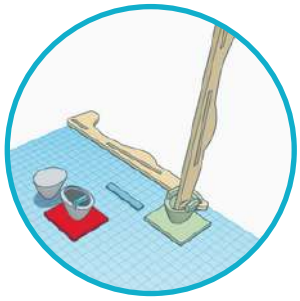
Learn about the history and evolution of sailplanes including the many recent advancements in aeronautics driving sailplane design and performance. This camp would make the sailplane pioneers Otto Lilienthal and Octave proud!

- **Each camper selects their own plane silhouette to create a 3D model**
- **Further 3D design work and 3D printing is required to create a silicone mold for the nose tip**
- **The plane is precisely cut with the laser and silicone poured to create a solid rubber nose tip that adds weight and helps ensure safer performance**
- **The final step is to create the wings and use the digital cutting machine to add graphics**
- **Campers take their gliders outside for some fun competition to see which plane can fly the furthest**

Features

Glider | 3D Printing (Mold Making) | Laser Cutting | Measurement & Design | Graphic Design | Digital Cutter | Individual Competition | Silicone





Students use many platforms and technologies to create their glider

This camp is an excellent example of how we interweave many disciplines to crate experiences that your child just dosen;t get at other camps.

Game Design: Flowlab

July 29 - Aug 2

Flowlab is our favorite platform for teaching students video game design. The game design construct mimics industry-leading engines such as Unity and Unreal Engine but without the complexity. Come learn the art of serious game design with us this summer!

- **Campers will learn the fundamentals of video game design process and set to work creating their game concept, storyline, artwork, and gameplay**
- **Campers will construct their video game using the Flowlab editor to bring their game to life with many features that includes a hero, hazards, moving enemies, collectibles, bonus points, sound, animation, game thumbnails, and much more!**
- **Every serious game designer needs an identify and the same is true for our campers who will use graphic design software to create their logo and subsequently 3D print their logo using our multi-colour 3D printers**
- **Campers will engage in some friendly competition and vote on which game they like the best**
- **To enable gameplay beyond the Studio campers will laser engrave a QR code to show their friends**

Features

Game Design | **3D Printing (Multi-Colour)** | **Laser Cutting** | **Graphic Design** | **Individual Competition**

Create Amazing Games with Flowlab!

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Introduction to Python

Aug 6 - 9 (4-day)

Our Python coding camp is ideal for students that have an interest in exploring coding with Python, a text-based coding language.

- **We cover the fundaments of coding with Python including scripts, errors, comments, data types & integers, assigning variables (strings, integers), manipulating variables, converting and swapping data types, data types, if/else, and much more.**
- **Campers create several fun coding projects during the week as they bring their skills together.**
- **Our camp features more than coding as campers will get the opportunity to 3D design, 3D print, and create a customized door hanger**

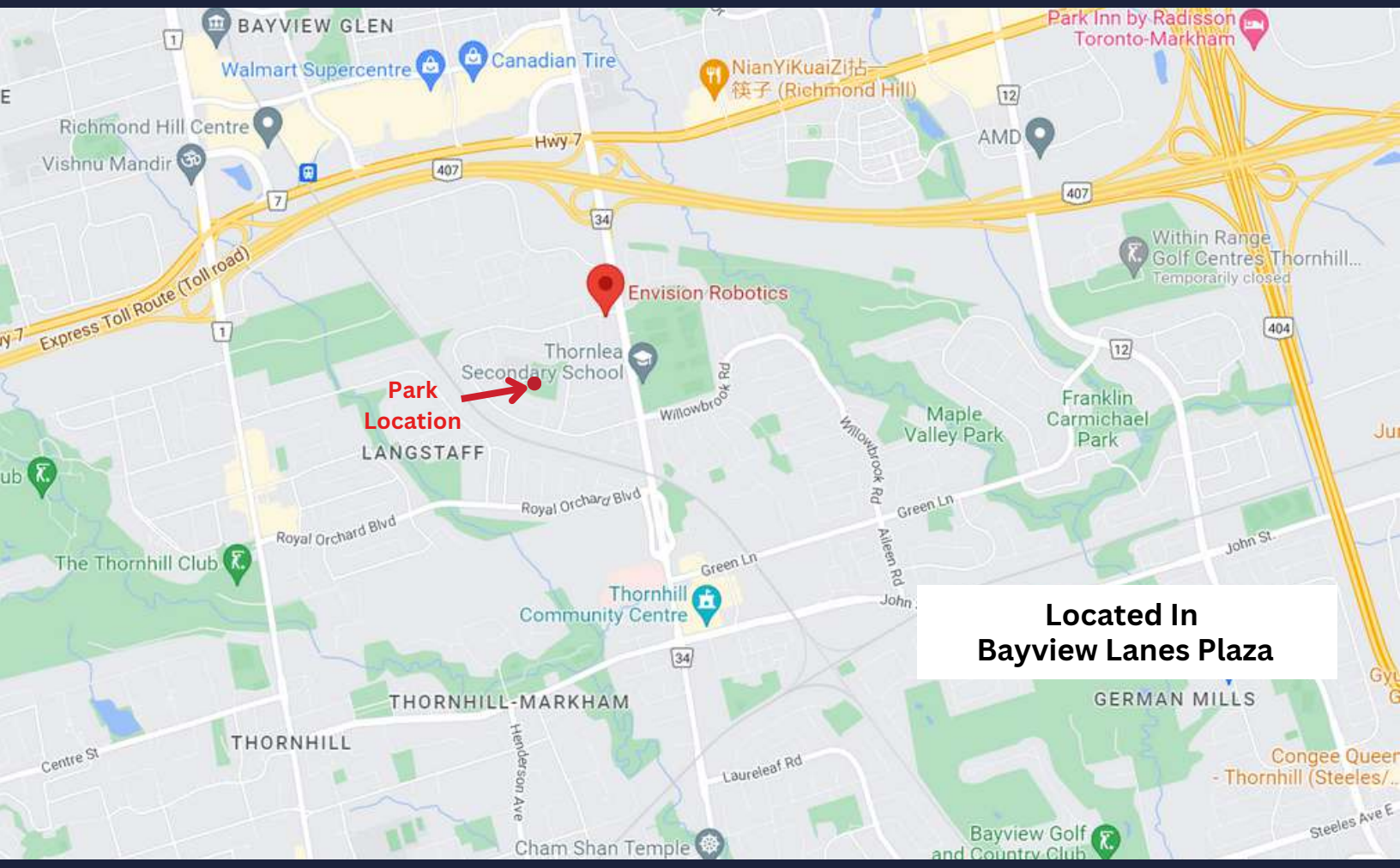
Features

Python Coding | **3D Printing (Multi-Colour)** | **Laser Cutting** | **Graphic Design**

Multi-Colour Door Hanger

Introduction to Python

Our Location



Our STEM Studio

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Follow Us!