REQUEST FOR DONATED SPACE OR CASH SPONSORSHIP

Presented to:

Strathcona County





Strathcona County Robotics Association

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Table of Contents

Executive Summary	
Our Request of Strathcona County	2
Sponsorship Benefits	3
Our Teams	4
Why Robotics	4
Why Partner with SCRA	5
Our Robotics Programs	6
FIRST LEGO League (FLL)	6
FIRST Tech Challenge (FTC)	6
More Than Robots - Outreach 22/23	7
Awards and Recognition	9
Success On The Field	9
Success Off The Field	10
Alumni	10
Our Operations	11
3-Year Expansion Plan	12
Board of Directors	12
More Photos	15

Executive Summary

The Strathcona County Robotics Association (SCRA) is looking for ~1500-2500 square feet of donated/subsidized space OR \$30k/yr for three years from Strathcona County to expand and serve more youth in our community. We have already received enough <u>new interest to more than double the number of teams</u> from the current three to six robotics teams – which far exceeds the capacity of the current ~400 square feet of donated garage space. If granted the space or funding, we'll have the capacity to deliver STEM/robotics programming to 150-300 youths in our community.

Our Request of Strathcona County

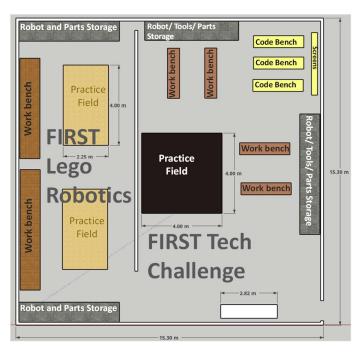
We would like Strathcona County to become SCRA's premier sponsor through the donation of ~1500-2500 SQ FT of indoor open/commercial space in Sherwood Park zoned for indoor recreational or commercial school. This would be a similar arrangement as the "Yellowhead Rail Club" who rents space from the City of Fort Saskatchewan at significant discount.

Alternatively, a cash sponsorship of \$30K/yr for three years would enable us to rent a dedicated space and provide a hand-up to grow the organization. A floor plan of the proposed space usage is included below. An ideal location would

be an open space with washroom facilities.

Our robotics programs are held solely during the evenings and weekends providing a presence in the otherwise underutilized/vacant space after hours and would have minimal impact on parking during the day.

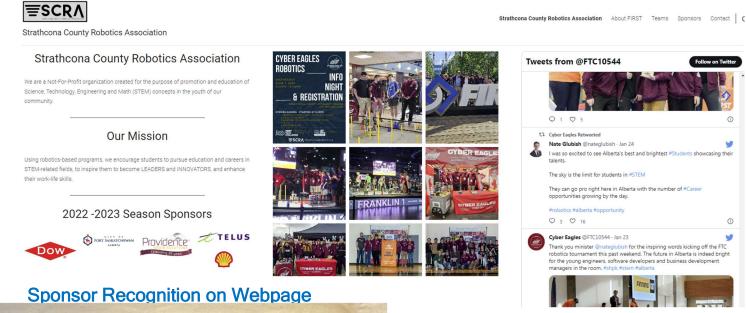
Our robotics teams have much parent involvement and are well supervised. At any given time, the adult-to-student is $\sim 1:3$.



Sponsorship Benefits

As the premier sponsor of SCRA, Strathcona County would benefit from:

- High rate of return on investment. Many of our alumni are going, or have gone, "professional" in STEM fields.
- Vacancy reduction. We can assist with operating costs for a vacant or underutilized property.
- An occupied space is more secure than a vacant space.
- High visibility on location signage, team jerseys, website (<u>https://strathconarobotics.ca/</u>)and social media (Twitter, Instagram, Facebook)
- The team has high visibility in the local media with multiple television and radio interviews as well as news articles every season.







Local Paper Coverage

Interview with CBC TV

Our Teams

In the 2022-23 season, our association was represented by three teams, Cyber Eagles FLL, Cyber Eagles Jade (Junior) and Cyber Eagles Silver (Senior).

CYBER EAGLES





Why Robotics

We believe that there is a gap in STEM programming for the youth in the region.

- 1. There is much focus on **sports** (swimming/ skating/ softball) and **arts** (pottery, glass fusing, painting, dance, drama) in county programming. However, there is little offered in the way of STEM/robotics.
- 2. In the Elk Island school system, robotics/programming classes are not offered until high school; and are often limited to single semester offerings.
- 3. Unlike other programs like soccer, hockey, softball, swimming, STEM has no extra-curricular progression/competitive opportunities. And unlike athletics, there are many STEM/robotics alumni who can, and have gone "pro".

We want to close the gap in extra-curricular STEM programming. We want provide opportunities for the underserved Heartland region youth, aged 8-18, who don't fit in the conventional athletic or arts mold. Often, these youths don't fully feel they belong in the mainstream peer groups. However, when they find like minded contemporaries in our STEM/robotics programs, we have seen these youth transform into well spoken, confident young adults.

Why Partner with SCRA

Partnering with SCRA is an investment in the youth of our community with an organization that has a strong track record of success. These results garner high visibility in local and social media which can be leveraged to showcase Strathcona County as a leader in youth STEM development.

- Our teams have earned a spot to compete, representing Strathcona County, Alberta and Canada at the **FIRST** World
 - Championships in Houston, Texas six years running including the past 2022-2023 season. The team has just returned in April with the best performance by a Canadian Team.
- Our teams have been recognized at the Provincial level through awards numerous Design, Innovation, Control/Code, Winning Alliance, and the sought after Inspire Award.
- Our Senior Team, the Cyber Eagles received the 2022 Strathcona County Award of Excellence for Youth, in recognition of their community support such as 3D printing and distribution of over 16,000 ear savers for healthcare providers & other community not-forprofit organizations, their work with the Boys & Girls Club, and the Beeping Egg program with the Edmonton Police Service for the CNIB, to name a few.



Due to our ongoing success and community engagement, youth interest in our programs has significantly outgrown our current space. Support from Strathcona County in providing us with a new home would go a long way in helping us realize a FIRST® goal for every kid to recognize their worth, abilities and love who they are!



Our Robotics Programs

FIRST LEGO League (FLL)

(FLL) is designed to introduce STEM concepts to students ages 8 to 10 while exciting them through a brand they know and love – LEGO®.

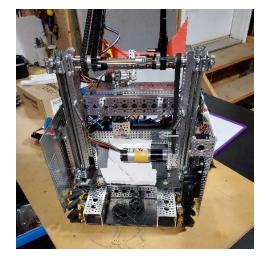
Engaging students in hands-on STEM experiences not only enhances their confidence but also fosters their knowledge and develops their habits of learning. With the guidance of adult coaches, students are encouraged to persevere through trial and error, allowing them to connect STEM concepts to real-world examples. This approach not only equips students with practical skills but also prepares them to take on future challenges with a growth mindset.

FIRST Tech Challenge (FTC)

FTC teams (grades 7-12) are challenged to design, build, program, and operate robots to compete in exciting head-to-head matches in an alliance format.

With adult coaches and mentors providing guidance and support, students gain valuable experience in STEM skills and engineering principles, while also learning the value of hard work, innovation and teamwork. As they overcome setbacks and work towards their shared goal, these young people develop a sense of camaraderie and dedication that will serve them well in all their future endeavors.







More Than Robots - Outreach 22/23

One of our core values at SCRA is giving back to the community. All our teams participate in many outreach events throughout the year – totaling over 700 hours of volunteer time per year. All events are provided free of charge – to ensure that everyone gets to participate and play. Here is a glimpse of this past season's outreach.

Coding Camps for the Underserved Inner-city Youth at the Bent Arrow Traditional Healing Society







Coding camps for Local Youth Through Strathcona County Library







Annual Highway Clean Up - over 400lbs of garbage picked up from Hwy 21!





Beeping Eggs for Edmonton Visually Impaired Easter Egg (partnered with EPS Bomb Squad)

• Designed, 3D printed and assembled over 200 eggs for 2023 hunt







Many, Many Community Engagements and Demonstrations

- Life in the Heartland
- Great Canadian Trade Show
- Fort Sask. Boys and Girls Club
- Junior/Senior high school demonstrations











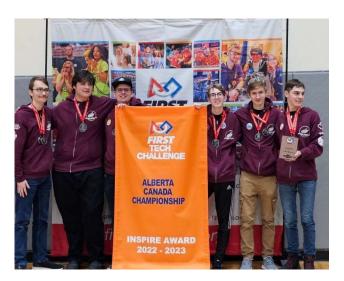
Awards and Recognition

Success On The Field

Over our eight-year history, our *FIRST* Tech Challenge teams, the Cyber Eagles have left a legacy of excellence - earning numerous awards at the *FIRST* Alberta Championships.

TEAM 10544 CYBER EAGLES (SENIOR TEAM)

- 2023, 2022, 2020, 2019, 2018, 2017
 FTC World Championship Qualifier
- 2023. 2022, 2020 INSPIRE AWARD
- 2023, 2020, 2019, 2018, 2017, 2016
 WINNING ALLIANCE
- 2022, 2019, 2017 MOTIVATE AWARD
- 2016 Rockwell Collins Innovate Award

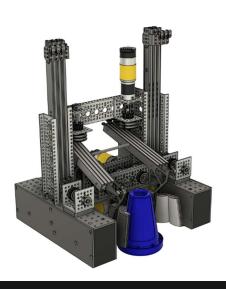


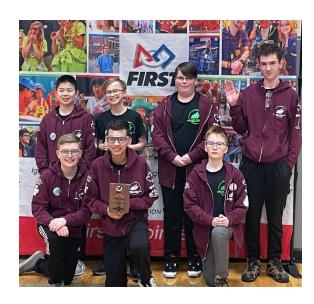
TEAM 22092 - CYBER EAGLES

(JUNIOR TEAM STARTED SEPTEMBER 2022)

2023 Design Award

The teams have also had many successes on the field throughout the years – finishing as the top robot in tournament round play in several seasons – including the most recent 2022-2023 season.







Success Off The Field

The Cyber Eagles Team 10544 was awarded the **Strathcona County Award of Excellence for Youth in 2022** for their robotics performance, their

representation on the world stage as well as their initiative and efforts to help our community during the Covid19 pandemic. When the Covid19 pandemic hit, the team saw a need for ear-savers for healthcare workers to make masks wearing more comfortable. The team kicked 3D printers into high gear and printed and distributed over 16,000 ear savers during the



first few months of the pandemic to local hospitals (Grey Nuns, Misericordia, Royal Alexandra, Fort Hospital), Cross Cancer Institute, multiple long term care/senior centers, and other not-for-profit organizations.



Alumni

We're proud to share that <u>100%</u> of our alumni are either attending or have graduated from post-secondary education with many of them in STEM fields such as engineering (multiple disciplines), computer science, science, nursing, economics and science education.

We also have very high alumni participation with many returning to coach and mentor teams, as well as volunteer at robotics competitions after they themselves have graduated from the *FIRST®* robotics program.

Our Operations

Strathcona County Robotics is a fully volunteer run organization. There are no paid positions.

All club fees, sponsorships and donations go towards registration/competition fees, robot parts and mandatory fixed overheads such as insurance and business registration costs. Our current operations are in a donated 400 SQFT garage space.

The space limitation prevents the club from expanding to meet the growing community demand. By providing the association with space or funding for three years, the county would be the spark that launches the legacy of community youth robotics in Strathcona County.

Strathcona County Robotics Association Profit & Loss

July 1, 2022 through June 11, 2023

	Jul 1, '22 - Jun 11, 23
Ordinary Income/Expense	
Income	
4000 · Registration/Club Fees	8,600.00
4005 · Grants, Sponsorships, Donations	12,058.61
4010 · Fundraising Activities	770.10
4100 · Interest Revenue	13.29
Total Income	21,442.00
Cost of Goods Sold	
5005 · Registrations/Game Sets	5,754.76
5010 · Equipment & Parts	8,228.15
5012 · Shipping & Brokerage - COGS	1,517.87
5015 · Tools & Supplies	532.48
5020 · Outreach Program	277.20
Total COGS	16,310.46
Gross Profit	5,131.54
Expense	
6010 · Business Reg. / Membership Fees	318.00
6012 · Depreciation Expense	1,977.72
6015 · Insurance	1,266.35
6025 · Office Expenses	358.54
6040 · Rentals	943.95
6045 · Meals & Entertainment	201.16
Total Expense	5,065.72
Net Ordinary Income	65.82
Other Income/Expense	
Other Expense	
7015 · Furniture, Equipment, Tools	1,743.16
7049 · Purchases Moved to Fixed Assets	-1,743.16
Total Other Expense	0.00
Net Other Income	0.00
Net Income	65.82

3-Year Expansion Plan

Once a larger space is available, there is three-year plan for the association to increase revenue and become self-sustaining in a rented space. Plans to increase revenue include:

- 1. Grow the number of teams from 3 to ~12 in three years to provide ~100-120 underserved youths
- 2. Run summer robotics camps in the rented space to raise revenue. Similar summer STEM camps such as those offered at Telus World of Science, Code Ninja or UofA's DiscoverE charge >\$500/child per week.

The association also taking steps to move from a not-for-profit to a charitable organization, which opens up additional grants and sponsorship opportunities. The move to charitable status is expected to be complete by early 2024.

Board of Directors



Eugene Zarowny, CPA, CA, CFP

President

Eugene is a Chartered Professional Accountant in Edmonton providing tax and financial services to his clients throughout Alberta and has been involved with FIRST®

robotics teams since 2018. He has volunteered as a referee, MC, mentor and became president of SCRA in June 2021. This past 2022/23 season, Eugene and his son utilized their past FTC experiences to mentor SCRA's new and first junior high *FIRST®* Tech Challenge Team.

Eugene has witnessed firsthand the profound effect *FIRST*® has on our students and looks to grow our association so that we may offer more kids in our community access to these great STEM programs.

"As a global robotics community preparing young people for the future, we at FIRST® want every kid to recognize their worth, abilities and love who they are. Together with our sponsors, we know the power STEM education has in inspiring the innovative spirit and self-esteem our kids need to tackle the world's greatest challenges."

https://info.firstinspires.org/morethanrobots?utm_source=first-inspires&utm_medium=headline&utm_campaign=mtr-brand-022



Sanny Chan, BSc, MSc, PEng Board Member

Sanny is a process engineer at Dow Chemical Canada and has been passionate about *FIRST*® robotics since 2009 when her son and daughter first joined a LEGO robotics team.

As a founding board member of SCRA and the Outreach Coordinator, Sanny is dedicated to expanding STEM extra-curricular opportunities for youth in the community. Her commitment to this cause has endured long after her own children graduated from the program, demonstrating her unwavering belief in the power of robotics to inspire and empower young people.



Dean Kennedy
Board Member

Dean is a Suncor Energy Pipeline operator and has been involved with *FIRST®* robotics since 2017 when his son joined the Cyber Eagles Robotics team. Despite his busy

schedule, Dean spent countless hours coaching and mentored FTC teams from 2017 to 2020. He is a founding board member and past president of SCRA. Although Dean's children both graduated from the program over three years ago, he continues to take time to serve on the SCRA board as well as spend countless hours to nurturing the growth of STEM and robotics in the community.



Dave Stork, BSc, PEng Board Member

Dave Stork, P.Eng, is a 27-year veteran at PCL Construction, where he designs software to help manage the company's operations. He has been involved with FIRST® robotics teams since 2018 and has had two sons

go through the FIRST® robotics programs. Additionally, Dave has previously

hosted a team at his place for two years. Currently, he is in his 6th year of coaching and mentoring *FIRST®* robotics teams. His commitment to the team stems from seeing the learning opportunities the *FIRST®* program provides students and from witnessing the growth in students working towards a common goal in a team environment.



Shawn Loewen, BSc Board Member

Shawn is a Software Product Architect at Computronix and has been involved with *FIRST®* robotics since 2017 when his son joined a LEGO robotics team.

Shawn has spent countless hours mentoring students on software development practices and watching them grow. His son Ben will graduate from grade 12 this year and start studying engineering at the University of Alberta in the fall. Both Ben and Shawn plan to stay involved with *FIRST*® and continue to mentor the next generation.

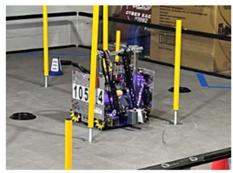


Angel Zarowny, CPA, CMA
Treasurer

Angel is the Vice President of Corporate Services at solūt ltd, a comprehensive IT management and consulting firm, and has been involved with *FIRST®* robotics since 2018 and is a founding board member of SCRA. Angel

continues to support all SCRA accounting and operating functions. The ongoing success of SCRA is extremely important to Angel, so that other students may participate and enjoy the many positive experiences her son realized during his 4 years as a member of the Cyber Eagles FTC team.

More Photos























Robotics tournament set for Saturday

Countless hours in perfecting their robotics will be put to the test this weekend as the Cyber Eagles Abootics will be put to the test this weekend as the Cyber Eagles Silver and Cyber Eagles Silver and Cyber Eagles Abotics and the Last roungement and the Last roungemen



Local robotics team gears for Worlds

6 THURSDAY, MARCH 16, 2023

A local robotics team has blown away the competition and will now compete against the best in the world.

Over the weekend on March 4 and 5 in Red Deer, the FIRST Tech Challenge Alberta Championship saw more than 200 students from 32 teams take part in the robotic competition that challenges students to inavorate, collaborate and create solutions.

The regional competition saw the teams robots create an alliance in a team game called Powerpion, with the goal of score more points, which are scored by moving components.

Samny Chan, outreach coordinator for Cyber Eagles Robotics team, said the two teams did exceed learn, said the two teams did exceed learns in the cropionships, the northern Alberta championship and the southern Alberta championship and the southern Alberta championship and the southern Alberta championship and the velocity of the components and the southern Alberta championship and the velocity of the components and the velocity of the velocity o

Cyber Eagles Silver won the Inspire Award and Captain of the Winning Alliance and Cyber Eagles Jade won the Design Award.

alot in the autonomous mode and had a great strategy to build points.

"We broke 200 for the first time in the whole season and broke and received an invitation to the 200 points in a match three times words."



Sanny Chan, outreach coordinator sainty chair, outreach coordinator for Cyber Eagles Robotics team, said the two teams did excellent, with the Cyber Eagles Silver placing first overall.

The team has qualified for the FIRST Tech Challenge World Championships in Houston, Texas between April 19 and April 22. This marks the sixth time that the team has received an invitation in its eightly ears in existence and seven years competing. "Only two of the 33 teams attending received an invitation to go to Worlds, so it is kind of like the Olympics because you have to qualify and receive an invitation," Chan said,







BGC Fort Saskatchewan hosts FIRST Lego League festival

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Champions off to Texas

