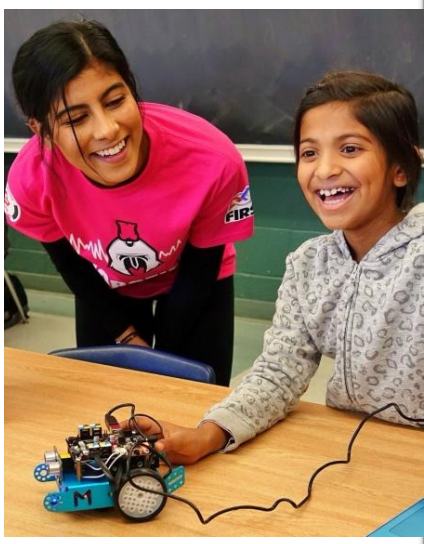
Pink Titans

Team 5719 of FIRST Robotics Competition

David & Mary Thomson Collegiate Institute, Toronto

Sponsorship Overview 2018-2019



PinkTitans.ca /frc5719

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The **Pink Titans** – Team 5719 of the ***FIRST*** Robotics Competition (FRC)
thanks the following organizations for their **gracious support** in the **2018 FRC season**:

tdsb Toronto District School Board

MARTINREA

GM CANADA

Kiwanis KIWANIS CLUB OF CASA LOMA

DL ELECTRONICS AND COMPUTERS

THOMSON D&M SINE MAGNO LABORE

Awan Tire & Auto

PARADISE PRINT

Surridge Sheet Metal

About the Pink Titans

The ***FIRST*** Awards-winning **Pink Titans** - Team 5719 of the ***FIRST*** Robotics Competition (FRC) - is made of students, teachers, and mentors who are interested in learning, teaching, and collaborating in the context of a fun, challenging, yet rewarding robotics experience.

- **5719**: Number designation given by ***FIRST*** Headquarters in New Hampshire, USA.

FIRST ROBOTICS COMPETITION

- **Pink**: Meanings of the colour are also associated with key characteristics of the team – acceptance, hopeful, optimistic, playful, and youthful; plus a mix of red's passion and energy with white's simplistic approaches to solutions!

Promotion of awareness of efforts by the Canadian Cancer Society in combating breast cancer.

Canadian Breast Cancer Foundation ONTARIO ™

THOMSON D&M SINE MAGNO LABORE NIL

- **Titans**: Defined as those who "gain strength and stand out in greatness of achievement".

Titans is the name of teams at **David & Mary Thomson Collegiate Institute**. It will open a **new school building** in **Fall 2019**, in Scarborough (East Toronto)!

STEM Science, Technology, Engineering, Mathematics

Mission

To **celebrate STEM** (Science, Technology, Engineering, Math; 21st Century-workplace) education by fostering a **collaborative**, exciting, and engaging culture of **learning STEM-focused skills**, **teaching** and **applying** them, then **sharing with the greater community**.

Vision

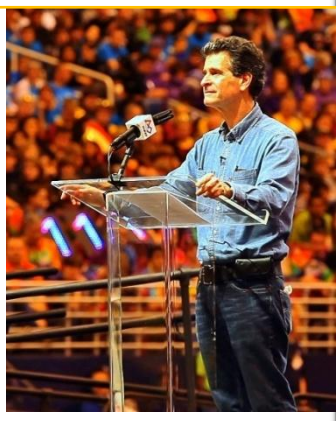
*"**Pink** Of The Possibilities!"*

- New members are accepted and welcomed
- All members participate with optimism, **comfort to try and learn new things**, take risks, plus **discover what is possible** for consideration of further pursuits of interests.

Goals

- **Design**, **build**, and **program robots** that compete in annual ***FIRST*** Robotics Competition
- **Promote awareness**, interest & **excitement** in **STEM** by outreach
- **Foster mentor-mentee relations** for sustaining continuity in learning and **inspiring youth** to **achieve higher goals**

About the *FIRST* Robotics Competition



"The Varsity Sport For The Mind™."
"The Only Sport Where Everyone Can Turn Pro."

*"Sporting competitions seem to be what we obsess over, frankly. So if we can **put engineering**, **science**, **technology into a format of healthy**, **fun competition**, we can **attract all sorts of kids** that might not see the kind of activity we do as accessible or rewarding."*

- **Dean Kamen**, Inventor of the Segway & Founder of ***FIRST*** Robotics Competition

"It's As Close To Real-World Engineering As You Can Get."
"The Hardest Fun You'll Ever Have."

FIRST Robotics Competition (FRC) is an international robotics competition where teams of high school students **design**, **build**, **and program a 120-pound robot in only six weeks** to play competitive games in tournaments. FRC is the main high school-level of progressive programs of ***FIRST***:

FIRST ROBOTICS COMPETITION

In April 2018, 40,000+ people and 700 + teams from 37 countries competed at the ***FIRST*** World Championship at Ford Field (home of NFL's Detroit Lions), Detroit, Michigan, USA.

FIRST - ***F**or **I**nspiration* and ***R**ecognition* of ***S**cience* and ***T**echnology* - is the **world's leading non-profit STEM education program**. Among the key principles of ***FIRST***:

- **Inspire and motivate students to celebrate Science and Technology**, plus pursue related careers, becoming their leaders and innovators
- **From mentors**, **learn knowledge** and **skills** in science, engineering, and technology
- Team environment promotes **development of skills** in **communication**, **self-confidence**, **leadership**

Competition programs set **core values** that guide everything that students and adults do:

- **Gracious Professionalism®**: Culture of competition, **encouraging high-quality work** while practicing empathy, sensitivity, and kindness by **valuing and respecting others' work**
- **Co-opertition®**: Concept of competing **teams helping**, **teaching**, and **learning from each other** whenever possible to **mutually achieve highly**

Awards Since Rookie Year of 2015

2015 Winners of Waterloo Regional

- Set **World Record Score** of 280 with FRC 1114 (***FIRST*** Hall Of Fame team) and FRC 2056 (since 2016, top 3rd in world)
- Advanced to ***FIRST*** World Championship in St. Louis, MO

2015 Highest Rookie Seed Award

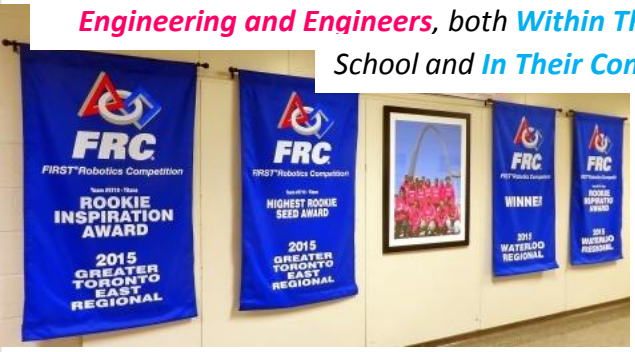
(Greater Toronto East Regional)

- *Celebrates the **Highest-Seeded** Rookie Team At End of Qualifying Rounds*

2015 Rookie Inspiration Award x 2

(Greater Toronto East Regional & Waterloo Regional)

- *Celebrates a Rookie Team's **Outstanding Success** in **Advancing Respect** and **Appreciation for Engineering and Engineers**, both **Within Their School** and **In Their Community***



2017 Parabolic Power Play Award

(STEMley Cup Off-Season Event)

- *Celebrates **creative design**, **use of component**, or strategy*

2017 & 2018 Judges' Award

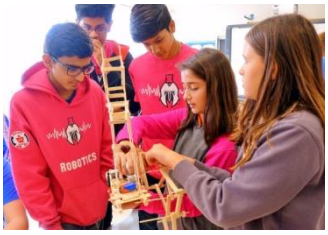
(Ont. Distr. Victoria Park Collegiate & Durham College Events)

- *Merit recognition of a team's **unique efforts**, performance, or **dynamics***

Season Timeline

Sept. – Aug.

STEM Outreach, Robot Demonstrations, Symposiums at schools & in community



Aug. – Nov.

Off-Season Events: Robots@CNE, Fall Fiesta, STEMley Cup

Sept. – Nov.

VEX Robotics Competition: Build

FRC Conferences: 2056 Ways To Inspire, SWATposium

November

Hosting ***FIRST*** **LEGO League Practice Events** for 18 teams

Hosting ***FIRST*** **LEGO League Qualifying Event** for 18 teams

December

VEX Robotics Competition: Toronto Qualifying Event

Jan. – Feb.

FIRST **Robotics Competition**: Six-Week Build

March

FIRST **Robotics Competition**: Ont. District Qualifying Events x 2 in Toronto Area

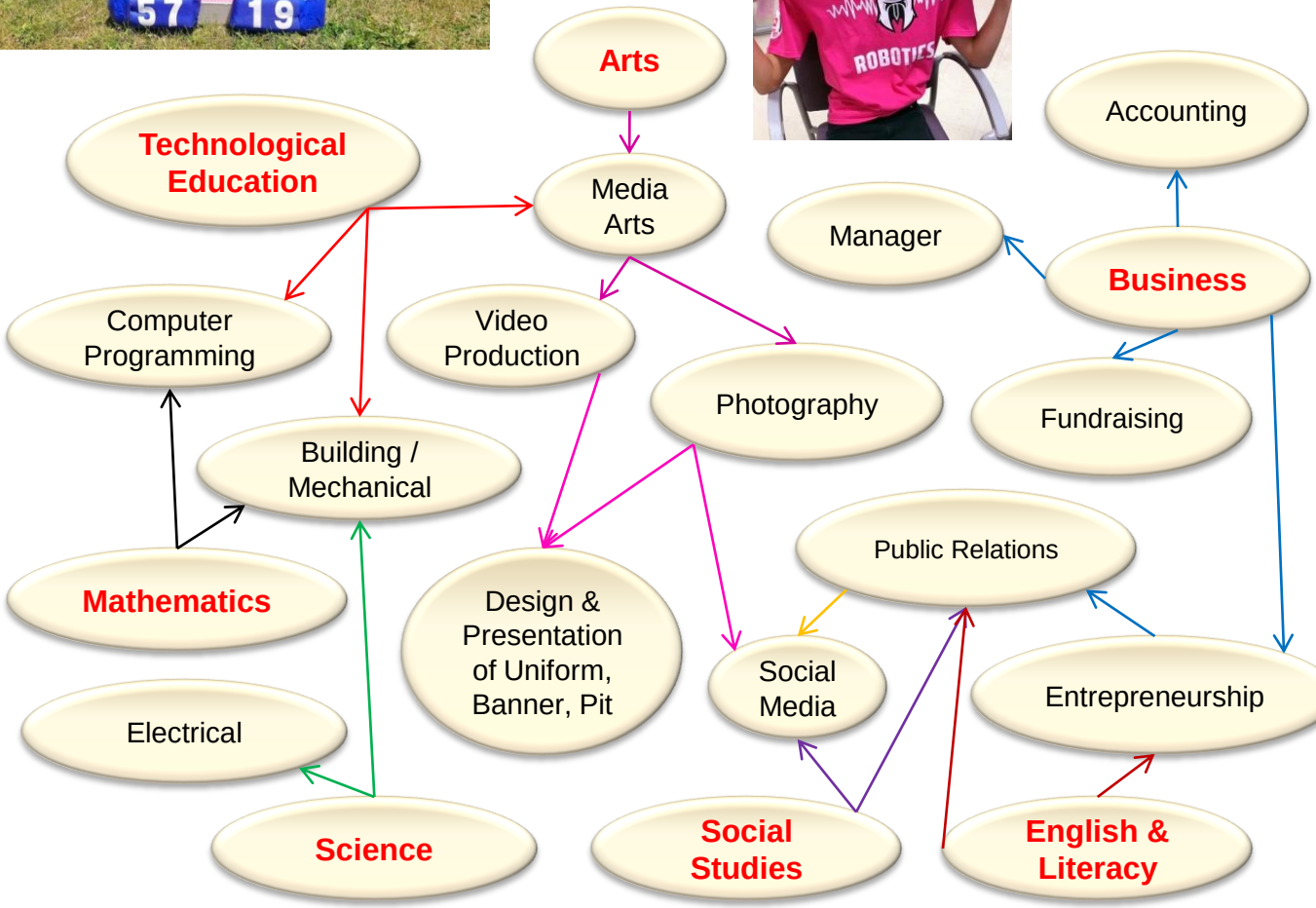
April

If qualify: Ontario District Championship & ***FIRST*** World Championship

FIRST Robotics Is About More Than Building Robots!

Leadership and Growth Opportunities For All Students

- Fostering **Mentor - Mentee** Relationships for **Teaching** and **Learning Transferable Skills** in **Multiple Subject Areas**:



Strategies for Achieving Goals

- Fostering **Collaboration** and Promoting **Acceptance of Different Individuals** at **Various Levels of Skills**, **Experiences**, and **Interests**
- **Teaching** **Valuable Skills** for Success to **Becoming Respected Leaders** and **Team Members**

Students at any Level of Skill and Experience are Encouraged to Join!

Benefits of FIRST Robotics for Students

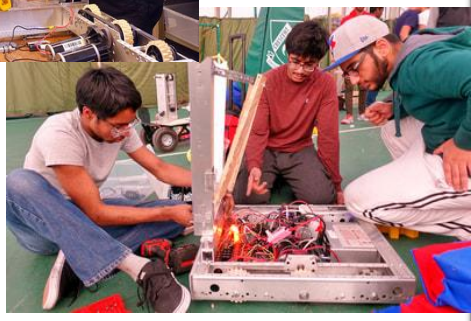
Fostering STEM-Focused Skills For Success

- Effective **collaboration**, **communication**, **creativity**, **critical thinking** are valuable to helping students succeed at adapting to new jobs in increasingly interconnected, digital-aged world
- Foster comprehensive, **systems-thinking approach to problem-solving** and **practice Global Competencies**

Simulation of Real World

*"**FIRST** Robotics Lets Students Play With The Pros."*
*– **FIRST** Inspires*

- Students **gain first-hand experiences** and use learned skills to help run an organization:
  - Learn to **operate same tools**, machines, software programs **utilized in industry**
  - **Make real-life** engineering and business **decisions**
  - Learn to **collaborate with co-workers** of different ages, experiences, backgrounds, and opinions
    - Learn **how** and **when to lead**, plus **follow**
  - Volunteer to assist others when needed. Learn **how to give** and **receive help**
  - **Set short-term and long-term goals**. Make and commit to plans. Organize life schedule
    - Learn to **adapt to changing plans**, teams, and working environments
  - **Demonstrate grit and perseverance**, key to handling and overcoming future challenges



Motivating Tool for Learning

- **Competition aspect** of ***FIRST*** Robotics appeals to diverse demographics, ages
- Students **take ownership** of their robots, **building** sense of **accomplishment**, **pride**, **confidence**
- **Instill passion for learning new skills and knowledge**, thus motivation to succeed at academics in pursuit of long-term career goals

Benefits of *FIRST* Robotics for Students

Scholarships to Universities and Colleges

FIRST Robotics Canada has **thousands of dollars worth of scholarships** to Ontario Universities:

- Depending on university, scholarships range from financial aid to any program to full scholarship to Engineering Program
- Info. at www.***FIRST***RoboticsCanada.org

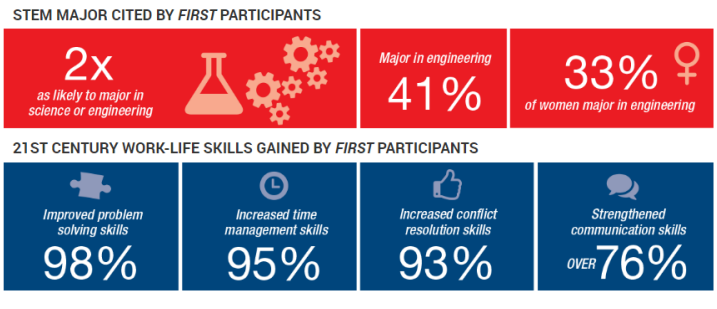
canadore college
University of Windsor
NIPISSING UNIVERSITY
ST. CLAIR COLLEGE
Western UNIVERSITY · CANADA
UNIVERSITY OF TORONTO
Queen's UNIVERSITY
McMaster University
UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY
RYERSON UNIVERSITY
YORK UNIVERSITÉ UNIVERSITY
UNIVERSITY OF WATERLOO

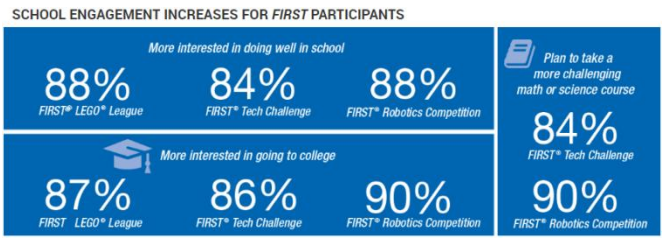
Testimonial from Nithusan Ranjanathan

(2015 Captain of Pink Titans):

- "It helped me to develop **valuable team work skills** by the way that we must co-operate as a team."
- "... **time management ...** is just one of the valuable lessons that our members learned apart from the vast knowledge of the mechanical and electrical aspects."
- "... I finally got to **make connections** from what we learned (in school) **to the real world**. This in turn **helped me to pick an appropriate career path** (of electrical engineering)."
- "... it is a truly **exceptional experience** which **every student should indulge in**."

Statistics on Impact of *FIRST* Robotics Programs





FIRST Impact Infographic (***FIRST***Inspires.org, Jan. 2017)

Community Outreach

- Key to achieving **Pink Titan**'s goal of **promoting awareness**, **interest** & **excitement in STEM**

Global Competencies for Success

- Students **develop**, **practice**, and **master skills** in
  - **Collaboration** & **Leadership**
  - **Global Citizenship** & **Character**
  - Critical Thinking & Problem Solving
  - **Communication**
  - Inquiry, Creativity & Entrepreneurship

For Students from Elementary Schools

- Since 2016, **hosted three *FIRST* LEGO League (FLL) Practice Events** for 27 teams and **FLL Qualifying Event** for 18 teams
- **Judged** & **robot demonstration** at ***FIRST* LEGO League Jr. Expo**

- Since 2017,

Community Fairs x 5

General Crerar PS
George Peck PS
Ionview PS
Maryvale PS
St Andrews PS

Symposiums x 2

Robotics Showcase in Learning Network 19 Schools

Igniting Curiosity & Exploring Innovation Using Robotics & Tech Learning Cadre

Ignite-Explore-Inspire Student Symposium

Robot Demonstrations x 18

18 **Schools Across Toronto**

Girls' Robotics x 11

150 girls from **11 schools**, **mentored** by **34 high school girls**

STEM Collaborative Projects x 2

StrandBeests (Bessborough EMS)

Hovercrafts (Charles Gordon Sr PS)

In Greater Community

Oct 2017. **Go North STEM Day** at Univ. Of Toronto

Pink Titans want to help!
Inquire at **PinkTitans.ca**

Oct 2017. **Expo for Design, Innovation & Tech** at Design Exchange

May 2018. **Science Rendezvous** Street Festival

June 2018. **Midland Baptist Church Fair**

July 2018. **MakerEdTO Conference**

July 2018. **Maker Festival**

July 2018. **Coun. Thompson's Community Picnic**

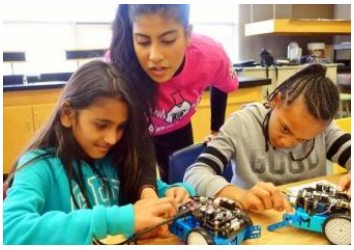
July 2018. **Heart 2 Soul Community Festival**

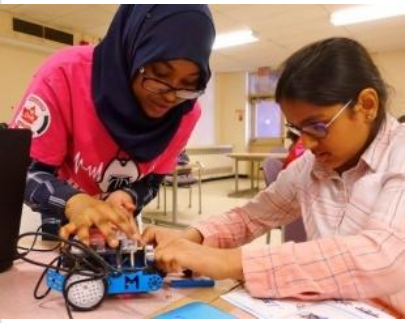
Girls of Pink Titans in STEM and Robotics

- Since 2017, **150 girls** from **11 elementary schools mentored** by 34 high school girls on **building robots** with tools & block-based **programming**
- Most females on Pink Titans have major interests in arts, business, physical education & social studies
- Opportunities to apply **Global Competencies** in ***FIRST*** experience

At Left: **Manahil Rauf** **Youth Mentor Award** (2016-2018) at ***FIRST*** **LEGO League** **Qualifying Events** and **Ontario East Provincial Championship**

- Bendale Jr PS
- Charles Gordon Sr PS
- Donwood Park PS
- Edgewood PS
- General Crerar PS
- Glen Ravine Jr PS
- Hunter's Glen Jr PS
- Knob Hill PS
- Lord Roberts Jr PS
- Sir Alexander Mackenzie Sr PS
- St. Andrews PS





Female Pink Titans
- studying **engineering**, architecture, **STEM-related**, **post-secondary programs**
- presented to **up to 200 students** at symposiums and workshops

If you would like a **robotics workshop** for your girls, please contact Edmund.Kim@tdsb.on.ca
For more information about Girls of Pink Titans, please **visit PinkTitans.ca**

Benefits of FIRST Robotics for Sponsors

- **Invest in today's youth** in your community to become **your future employees**
- **Connect with** and **inspire youth** in community
- **Strengthen reputation** of **your company**

Ontario District Championship at Hershey Centre in Mississauga, ON. **Eighty teams attend over several days.**

Visibility of your company at all events (competition, outreach) attended by **Pink Titans**

FIRST World Championship at Ford Field (home of the Detroit Lions, NFL team) in Detroit, Michigan, USA.

- Team covered in local newspaper, TV report
- Team attends **two *FIRST* Ontario District Events** + more if qualified:
  - Ontario District Championship
  - ***FIRST*** World Championship
- Each District Event is **attended by 30 to 40 teams**, **their families**, **and visitors** from across the city, province, country, and internationally

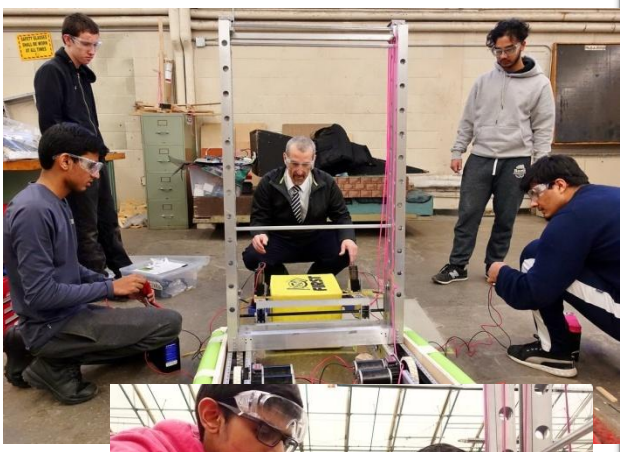
- In 2018, **40,000+ people** and **700+ teams** from **37 countries** attended the ***FIRST*** World Championship in Detroit, providing **huge international exposure** for team sponsors

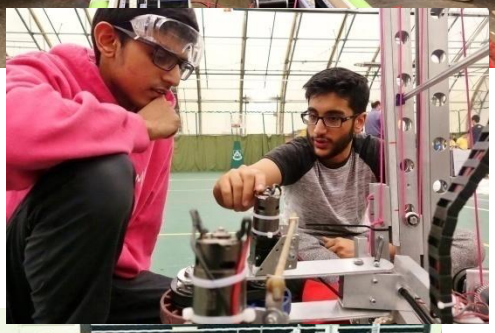
- ***FIRST*** Robotics tournaments are **broadcast online**, enabling **national** and **international exposure** for **your company** (twitch.tv/***FIRST***UpdatesNow, twitch.tv/***FIRST***inspires)

Benefits of FIRST Robotics for Mentors

"As you climb the ladder, reach down and pull someone up with you."
- Adriana Brown, President and COO of Project Eureka!

- **Provide guidance** and **expertise**:
  - **Steer students** in the right direction
  - Ask probing questions, **encouraging students to reflect**, clarify their thinking
  - Instill confidence in youth
- **Teach life-long skills** beneficial in career:
  - Thinking about a problem
  - Encourage **creativity**, thinking "outside the box"
  - Adapting to changing circumstances
  - Perseverance and patience
  - **Empathy**, relating well with other team members, and **learning to be forgiving**
- **Offer insights** on **"what it takes"** to be successful
- **Share passion** **and** **love of career work**
- **Feeling of joy** from **inspiring youth**:
  - Help shape their future, watch them grow
  - Help them to discover what they want to pursue in their future





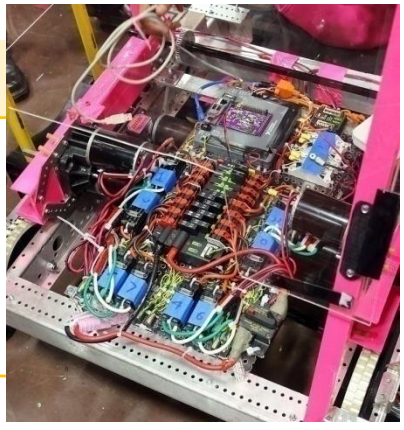
The **Pink Titans** at David & Mary Thomson C. I. **aspire to continually build upon experiences to improve the overall team**. To make this happen, the team is currently **seeking members in the community** interested in providing **mentorship in the following areas**:

- Engineering (Mechanical, Electrical), Computer Programming, Designer / CAD Operator, Machinist, Technician, Mechanic, Carpentry, Welding
- Marketing, Management, Fund-raising, Graphic Design, Writing, Public Speaking, Travel Logistics
- **Commitment**: From January to March - 3 to 10 hours per week, less in other months

Cost of Sustaining *FIRST* Robotics Team

The **incredible experiences for growth** and **learning by students** on the **Pink Titans** - ***FIRST*** Robotics Competition (FRC) Team 5719 at David & Mary Thomson Collegiate Institute have **only been possible by the gracious offer of time and funding by supportive community members**. The team aims to participate in ***FIRST*** Ontario District Events in March. However, there are many annual costs in running a high school ***FIRST*** robotics team:

Cost	Description
7,500	**Registration fee**: ***FIRST*** District Qualifying Event x 2 (Ont. Teams enter two events)
4,000	**Robot parts**: Metal, drive train parts, electronics, pneumatics, hardware
2,000	Tools, storage organizers, software (Computer-Assisted Drawing or AutoCAD); laptop computers x 2 (AutoCAD, programming, controlling robot)
1,500	Transportation: Rental van, school buses, fuel
1,000	Public Relations materials: Team clothing, printing (handouts, banners) fundraising costs, website domain
1,000	STEM Outreach materials: Non-renewable consumables, robotics kit parts (VEX, Arduino, Makeblock, LEGO Mindstorms)
500	Dinners for students working in evenings



If the team qualifies for Championship events, there are additional expenses:

Cost	Description
3,500	Registration fee: ***FIRST*** Ontario District Championship in Mississauga, ON
6,550	Registration fee: ***FIRST*** World Championship in Detroit, Michigan, USA
7,000	Transportation: Rental van, school bus, charter bus
7,000	Accommodations: 4 nights in Detroit, Michigan, USA

Sponsorship Levels

The **students** of the **Pink Titans** gratefully appreciate any form of assistance (financial, in-kind, mentorship) offered by the community to **help the students to dream big, achieve their goals**, and make possible participation in the ***FIRST*** Robotics Competition.

Principal Sponsor: $2,000 +

- **Company name preceding team's name** on **scoreboard** at competitions, in **competition program** & **online in official team profile** at ***FIRST***Inspires.org
- **Company name announced** at competitions
- **Largest-sized company logo** and/or **name**:
  - **Banner**, **Robot**, **uniform**, **print material** & **website incl. hyperlink**
- Promotion of **company name on social media**

Sustaining Sponsor: $1,500

- **Medium-sized company logo** and/or **name**:
  - **Banner** (at competitions, outreach events)
  - **Robot** (at competitions, outreach events)
  - Team **uniform**
  - Team **print material**
  - Team **website incl. hyperlink**
- Promotion of **company name on social media**

Supporting Sponsor: $1,000

- **Small-sized** **company logo** **and**/or **name**:
  - **Team uniform** worn at all events
  - Team **print material**
  - Team **website incl. hyperlink**
- Promotion of **company name on social media**

Community Advocate: up to $500

- **Small-sized** **company logo** or **name**:
  - **Team print material** (for events, promotions)
  - Team **website**

In-Kind Donations are graciously accepted: Robot parts, tools, printing, gift cards, food, etc.

Thank You For Your Gracious Support!

The **Pink Titans** – Team 5719 of the ***FIRST*** Robotics Competition (FRC)
thanks the following organizations for their **gracious support** in the **2018 FRC season**:

Toronto District School Board
www.tdsb.on.ca

- Largest school board, one of most diverse in Canada
- Fourth largest school board in North America. Serving 246,000 K-12 students in 583 schools

Martinrea International Inc.
www.martinrea.com

- Leader in development, production of quality metal parts, assemblies & modules, fluid management systems & complex aluminum products
- Focused primarily on auto sector

General Motors Canada
www.gm.ca

- One of Canada's largest automotive dealer networks
- Leader in auto design, engineering
- Innovative R & D partnerships, projects incl. cold weather testing, electric vehicle, green technologies

Kiwanis Club of Casa Loma
https://casaloma.kiwanisone.org/

- Volunteer, charitable organization supports youth in local, global community by service projects
- Key objectives include serviceable citizenship, rendering altruistic service, building better community

MJL Electronics and Computers
www.mjl.net.nz/
(647) 894-1655

- Electronics, Information Technology and Audio production fields for over 30 years
- Most important focus is excellent quality services for customers

David & Mary Thomson C. I. Student Administrative Council
www.thomsoncollegiate.com

- Provides funds for extra-curricular clubs, teams, leadership committees for supporting students' growth, success, and well-being at David & Mary Thomson C. I.

Awan Tire & Auto Inc.
www.awanauto.com
(647) 748 - AWAN (2926) awantire@gmail.com

- Hybrid specialists; any car, any repair
- Equipment, expertise, transparency, professionalism to perform highest quality auto service as quickly, efficiently as possible

Paradise Print
www.paradiseprint.com
(416) 288-6449 paradiseprint@gmail.com

- Since 1991, full-service printers for high-quality wedding invitations, business cards, flyers, menus, brochures, banners, forms, greeting cards & much more

Surridge Sheet Metal
www.surridgesheetmetal.ca
(416) 291-2663

- Family-owned, operated since 1964
- Specializing in custom fabrication, specialty metals, mobile welding, factory maintenance, custom guarding
- Technical services for various systems

Pink Titans

Team 5719 of FIRST Robotics competition

Donation Form for Income Tax Receipt

(Please **detach** and **mail to school address**, identified in box far below)

Business Name: _____

Contact Person: _____

Address: _____

City: _____ Postal Code: _____

Phone #: _____

E-mail Address: _____

Business Website: _____

Please **Check One** of the Options:

1. Cheque ☐ OR 2. Online Module ☐

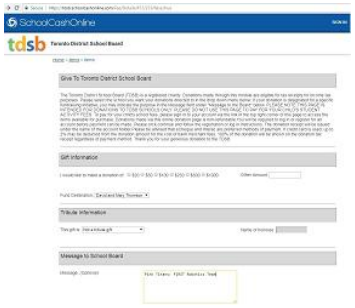
Toronto District School Board –
David & Mary Thomson C. I.
(Memo: Pink Titans - ***FIRST*** Robotics Team)

Please Mail This Completed Form
(**with cheque** if paying with it) to

Pink Titans - *FIRST* Robotics Team
c/o Edmund Kim
David & Mary Thomson Collegiate Institute
2740 Lawrence Avenue East
Toronto, ON M1P 2S7

at https://bit.ly/2AFi6lC

(Full instructions at https://bit.ly/2BEyl3N)



Complete prompts:

Gift Destination –

David & Mary
Thomson Collegiate
Institute

This Gift is – Not a Tribute Gift

Message – Pink Titans - ***FIRST*** Robotics Team

Monetary Amount: _____ Cheque #: _____ Cash $: _____

Material Donation: _____

For More Info: www.PinkTitans.ca Lead Mentor: Edmund.Kim@tdsb.on.ca