

# SWATposium 2018 Schedule



**9 00AM** : REGISTRATION -- PLEASE SIGN IN ON ARRIVAL

**9 15AM** : DINING HALL -- OPENING SPEAKER:  
KARTHIK KANAGASABAPATHY

**10 00AM** : DINING HALL -- MORNING BREAK

**10 10AM** : MORNING WORKSHOPS (A) -- LISTED BELOW

**10 15AM** : MORNING WORKSHOPS (B) -- LISTED BELOW

**11 35AM** : LUNCH SHIFT (A)  
-- PIZZA + DRINK FOR \$6!

**11 40AM** : LUNCH SHIFT (B)

**12 45PM** : AFTERNOON WORKSHOPS -- LISTED BELOW

**2 10PM** : DINING HALL -- PRIZES AND GAMES

**2 30PM - 4 00PM** : SWAT SOCIAL!

# COLOUR GUIDE



Use this Colour Guide to help you plan your day!

**MECHANICAL**

**ELECTRICAL**

**AWARDS AND OUTREACH**

**PROGRAMMING**

**MEDIA AND BUSINESS**

**ALTERNATE OPTIONS**

Scroll down to see the workshop schedule for the day.  
There are descriptions of workshops listed below!

Please sign up for workshops at  
<http://bit.ly/swatposium18>

# SWATposium '18 Schedule



## MORNING 40MIN WORKSHOPS

|                                |   |  |  |
|--------------------------------|---|--|--|
| <b>10:10-<br/>10:50<br/>AM</b> | <b>DESIGNING<br/>AND<br/>PRINTING 3D<br/>PARTS</b><br><br><b>BRIAN<br/>MACHADO</b><br><br><b>1360</b>   | <b>CHAIRMAN'S<br/>101</b><br><br><b>MARIE J.B.</b><br><br><b>771</b>                     | <b>PROGRAMMING<br/>WITH<br/>LABVIEW</b><br><br><b>ALEX DE<br/>FURIA</b><br><br><b>4343</b>   |
| <b>10:15-<br/>10:55<br/>AM</b> | <b>INTRO TO<br/>VERSA-<br/>PLANETARY<br/>GEARBOXES</b><br><br><b>NAVID<br/>KASHEM</b><br><br><b>694</b> | <b>BOOSTING<br/>CONFIDENCE</b><br><br><b>HANNAH S.,<br/>AYESHA N.</b><br><br><b>6070</b> | <b>BUILDING A<br/>PIPELINE FOR<br/>STUDENTS IN<br/>STEM</b><br><br><b>TEADORA G.,<br/>ANNA N.,<br/>SWATHI S.,<br/>RACHEL S.</b><br><br><b>3504</b> |

# MORNING 40MIN WORKSHOPS CONTINUED..



|                                       |   |  |  |  |
|---------------------------------------|---|--|--|--|
| <p><b>10:55-<br/>11:35<br/>AM</b></p> | <p><b>HOW TO BUILD<br/>A ROBOT WITH<br/>LOW LEVEL<br/>RESOURCES</b></p> <p><b>SOHAIB N.,<br/>SABIN G.,<br/>ANOUSHKA K.</b></p> <p><b>5036</b></p>   | <p><b>MORE THAN A<br/>VIDEO: HOW TO<br/>USE YOUR MEDIA<br/>EFFORTS TO<br/>HELP TEAMS IN<br/>NEED</b></p> <p><b>SAM HOLLINRAKE</b></p> <p><b>1360</b></p>                               | <p><b>ELECTRICAL<br/>101</b></p> <p><b>KAYLA<br/>VERGE</b></p> <p><b>1310</b></p>    | <p><b>WHAT IS FIRST<br/>ROBOTICS<br/>COMPETITION?<br/>HOW TO START<br/>A FRC TEAM?</b></p> <p><b>SHADAB<br/>SHAHEEN</b></p> <p><b>7710 &amp; 188</b></p> |
| <p><b>11:00-<br/>11:40<br/>AM</b></p> | <p><b>PLATE AND STANDOFF<br/>CONSTRUCTION: A<br/>SIMPLE 2D METHOD<br/>FOR CREATING<br/>ACCURATE 3D ROBOT<br/>PARTS</b></p> <p><b>TEADORA G.,<br/>ANNA N.,<br/>SWATHI S.,<br/>RACHEL S.</b></p> <p><b>3504</b></p> | <p><b>HOW TO START<br/>AN<br/>FLL TEAM IN YOUR<br/>COMMUNITY</b></p> <p><b>ABITHA A.,<br/>MEHAK D.,<br/>ANUSHA M., BRIJESHA<br/>P., KEERAT K.,<br/>BINAL K.</b></p> <p><b>4939</b></p> | <p><b>PROGRAMMING<br/>101</b></p> <p><b>CAITLIN<br/>BRIDEL</b></p> <p><b>771</b></p> | <p><b>THE ANATOMY<br/>OF A<br/>FUNCTIONAL<br/>TEAM</b></p> <p><b>ASHA MILLS-<br/>EMMITT</b></p> <p><b>865</b></p>  |



# MORNING WORKSHOPS 90MIN

10:10-  
11:30  
AM

MANAGING A  
LARGE TEAM,  
STUDENT LED,  
ROBOT BUILD

ROSEANNE  
KHALEEL

1511

FUTURE  
ENGINEERING  
STUDENTS  
Q&A

TRESTAN E.,  
ALEX K.,  
MARIA B.,  
JEREMY T

EDI PANEL

FIRST  
CANADA

TEETERING  
TOWER TRIALS

SHAHED  
SALEH

LUNCH WILL BE DONE IN TWO BLOCKS:

SHIFT 1 - 11:35 AM

SHIFT 2 - 11:40 AM



# AFTERNOON 40MIN WORKSHOPS

12:45-  
1:25  
PM

**INTRO TO  
MECHANICAL**

**EMILY ADAM**

**771**

**SWAT  
SPONSORSHIP  
METHOD**

**TITI ILORI**

**771**

**HOW TO  
CREATE A  
POSITIVE  
TEAM  
ENVIRONMENT**

**1374**

**HOW TO  
START AN  
FRC TEAM  
THAT LASTS**

**BRENDAN  
SIMONS**

**5406**

# AFTERNOON WORKSHOPS 40MIN CONTINUED...

1:25-  
2:05  
PM

**ELECTRICAL  
101:**

**LYDIA HILL**

**771**

**PROGRAMMING  
WITH GYRO  
SENSORS**

**CAITLIN  
BRIDEL**

**771**

**A GUIDE TO  
KICKOFF:  
DISSECTING  
THE GAME**

**NAVID  
KASHEM**

**694**



# AFTERNOON WORKSHOPS 90MIN

12:45-  
2:05  
PM

**THE INS AND  
OUTS OF  
STRATEGY IN  
FRC**

**KATE M.,  
KYLE B.,  
MATT M.**

**1511**

**SO, YOU WANT TO  
SUBMIT FOR  
CHAIRMAN'S:  
THE NUTS AND BOLTS OF  
YOUR FIRST CHAIRMAN'S  
SUBMISSION**

**ANGELA T., & MONICA A.**

**4039**

**FACING  
ADVERSITY**

**GIRLS IN  
FIRST  
ADVISORY  
COMMITTEE**

12:45-  
2:05  
PM

**PROGRAMMING 101:  
TRANSITIONING TO  
VISUAL STUDIO CODE  
AND INTRO TO  
COMMAND BASED  
PROGRAMMING**

**RICHARD MCMULLIN**

**1310**

**FLL REFEREE  
TRAINING**

**JEFF LAUCKE**

**FIRST CANADA**

# WORKSHOP DESCRIPTIONS

## DESIGNING AND PRINTING 3D PARTS:

THE 3D PRINTING WORKSHOP WILL CONSIST OF USE CASES FOR 3D PRINTING IN FRC, HOW YOUR TEAM CAN BENEFIT FROM 3D PRINTING, AND HOW TO DESIGN FOR IT IN YOUR MECHANISMS. THIS WORKSHOP IS AIMED TOWARDS TEAMS WANTING TO GET INTO 3D PRINTING, OR FEEL THEY CAN IMPROVE THEIR SKILLS IN THIS AREA.

### PRESENTER - BRIAN MACHADO

BRIAN MACHADO FROM FRC TEAM 1360 ORBIT ROBOTICS, THIS WILL BE IN HIS 7TH YEAR COMPETING IN FIRST, 4 YEARS BEING IN FRC. BRIAN WAS THE DESIGN LEAD FOR THE 2017-18 SEASON AND HAS A LARGE PASSION FOR CAD. HE HAS BEEN WORKING WITH 3D PRINTERS FOR OVER 3 YEARS, AND HAS THOUSANDS OF HOURS OF USE WITH HIS PRUSA I3 MK1.

## CHAIRMAN'S 101:

CONFUSED ABOUT THE CHAIRMAN'S AWARD? DON'T KNOW WHAT YOU'LL NEED TO WIN? WANT SOME FIRST-HAND ADVICE FROM SWAT 771'S CHAIRMAN'S PRESENTERS? THEN "CHAIRMAN'S AWARD 101" IS THE WORKSHOP FOR YOU. WE'LL COVER WHAT YOU'LL NEED TO SUBMIT, WHAT TO KEEP IN MIND WHEN ORGANIZING YOUR OUTREACH, WALK THROUGH EVERY PART OF THE SUBMISSION PROCESS, OFFER SOME HELPFUL TIPS THAT WE'VE LEARNED AND MUCH MORE! SIGN UP FOR A 40 MINUTE IN-DEPTH WORKSHOP TODAY.

### PRESENTER - MARIE JOLICOEUR-BECOTTE

MARIE IS A KEY PART OF TEAM SWAT 771. THIS IS HER FIFTH YEAR ON THE TEAM. HER FIRST YEAR SHE WAS THE ROBOT ROOM LEAD, HER SECOND YEAR SHE WAS THE AWARDS JR. LEAD AND A CHAIRMAN'S PRESENTER, AND FOR THE LAST TWO YEARS SHE HAS BEEN THE AWARDS LEAD AS WELL AS A CHAIRMAN'S PRESENTER.



## **PROGRAMMING WITH LABVIEW:**

WE'LL BE DIVING INTO THE STRUCTURE OF THE BASE CODE, CERTAIN THINGS SHOULD BE GOING, AND THE MOST EFFECTIVE WAY TO DO THINGS. WE'LL ALSO BE TAKING A DEEP LOOK INTO PROGRAMMING AUTONOMOUS AND HOW TO MAKE IT SIMPLE BUT EFFECTIVE. THERE WILL BE A DISCUSSION PERIOD ONCE THE PRESENTATION IS OVER TO TALK ABOUT VARIOUS BITS OF LABVIEW PROGRAMMING. A BASIC UNDERSTANDING OF HOW LABVIEW WORKS IS HIGHLY RECOMMENDED (IT'S VERY UNIQUE).

### **PRESENTER - ALEXANDER DE FURIA:**

I HAVE BEEN THE LEAD PROGRAMMER ON TEAM 4343 FOR THIS AND LAST YEAR AND I'VE BEEN PROGRAMMING IN LABVIEW, JAVA AND PYTHON SINCE MY JUNIOR YEAR.

## **INTRO TO VERSAPLANETARY GEARBOXES:**

ONE OF THE MOST IMPORTANT THINGS FOR YOUR ROBOT TO BE ABLE TO DO IS TO MOVE. SIMPLE IDEA RIGHT? YET MANY DON'T ALWAYS KNOW HOW TO DO THIS THE BEST WAY POSSIBLE. THE WRONG GEARBOX CAN END UP COSTING YOU A CHAMPIONSHIP RUN. IN THIS PRESENTATION, YOU WILL LEARN HOW TO CHOOSE THE VERSAPLANETARY GEARBOX RIGHT FOR YOUR NEEDS, AND HOW TO ASSEMBLE IT. FROM POWER OUTPUTS, TO GEAR RATIOS, TO TORQUE VS. SPEED, WE WILL COVER ALL OF THIS AND THEN SOME. YOU'LL EVEN BE ABLE TO MAKE YOUR OWN GEARBOX!

### **PRESENTER - NAVID KASHEM:**

NAVID HAS BEEN ON STUYPULSE TEAM 694 FOR FOUR YEARS NOW. HE HAS BEEN A PART OF THE TEAM'S ENGINEERING AND STRATEGY DEPARTMENTS, AND IS CURRENTLY THE TEAM'S PRESIDENT OF ENGINEERING. IN 2018, HE WAS SELECTED AT NYC REGIONAL TO BE A DEAN'S LIST FINALIST.

## **BOOSTING CONFIDENCE:**

TAG, YOU'RE IT! TEAM 6070 INVITES YOU TO CHASE YOUR DREAMS WITH CONFIDENCE IN A GAME OF TAG. TAP YOUR INNER SELF, AND LEARN TO APPRECIATE YOURSELF. DISCOVER NEW SKILLS, AND ATTRIBUTES WHILE ALSO HAVING FUN! WRITE A LETTER TO YOURSELF, AND BOOST YOUR CONFIDENCE IN THE FUTURE. IN THE END, WALK OUT AS A POSITIVE, SELF BELIEVER.

### **PRESENTER - HANNAH SHEIKH:**

HANNAH SHEIKH, NOW IN HER SECOND YEAR ON TEAM 6070: GRYPHON MACHINE, BEGAN HER STORY IN GRADE 7. HANNAH IS NOW AN ACTIVE MEMBER OF TEAM 6070, SERVING AS AN ADMINISTRATIVE HEAD CAPTAIN FOR HER TEAM, AS WELL AS A SAFETY CO-CAPTAIN. HER PARTICIPATION BEGAN WHEN THE TEAM WAS ONLY 2 YEARS OLD. HANNAH ALSO HELPS OUT WITH ORGANIZING EVENTS, AND GETS INVOLVED IN AS MANY OPPORTUNITIES AS SHE CAN. USING HER EXPERIENCE AS PART OF A HIGHLY SPIRITED TEAM, HANNAH DEFINITELY KNOWS A THING OR TWO ABOUT LEADERSHIP, TEAMWORK, AND POSITIVITY.

### **PRESENTER - AYESHA NOMAN:**

AYESHA IS A GRADE 10 STUDENT WHO HAS BEEN A MEMBER OF THE ROBOTICS TEAM FOR TWO YEARS AS A PART OF THE OUTREACH AND ADMINISTRATION TEAMS. SHE IS PASSIONATE ABOUT THE TEAM AND HOPES TO BE A CAPTAIN ONE DAY!

## **BUILDING A PIPELINE FOR STUDENTS IN STEM:**

THE GIRLS OF STEEL TEAM HAS BEEN WORKING TO INCREASE THE NUMBER OF STUDENTS ENGAGED IN STEM SINCE 2010. IN THIS PRESENTATION, YOU WILL LEARN ABOUT THE GIRLS OF STEEL ROBOTICS PIPELINE AND HOW TO CREATE SOMETHING SIMILAR FOR THE BOYS AND GIRLS IN YOUR SCHOOL OR COMMUNITY.

### **PRESENTER - TEADORA GILDENGERS:**

TEADORA A 9TH GRADE 2ND YEAR MEMBER OF THE GIRLS OF STEEL. SHE WAS A MEMBER OF FTC TEAM 9981, GIRLS OF STEEL LOVELACE LAST YEAR. IN HER FREE TIME SHE ENJOYS READING, DEBATING, AND SPENDING TIME WITH HER FRIENDS. AS A MEMBER OF THE FINANCE SUBTEAM ON GIRLS OF STEEL, SHE IS INTERESTED IN HOW FINANCE CAN IMPACT THE STEM COMMUNITY.

### **PRESENTER - ANNA NESBITT:**

ANNA IS A 15 YEAR OLD HIGH SCHOOL SOPHOMORE. SHE IS THE OUTREACH LEAD ON GIRLS OF STEEL ROBOTICS, A MEMBER OF THE PROGRAMMING TEAM, AND IS PASSIONATE ABOUT ADVOCACY. SHE IS INTERESTED IN INCREASING ACCESS TO STEM FOR ALL STUDENTS AND HAS BEEN A PART OF FIRST FOR 5 YEARS.

RACHEL SADEH

## **BUILDING A PIPELINE CONTINUED...**

### **PRESENTER -SWATHI SENTHIL:**

SWATHI IS A JUNIOR IN HIGH SCHOOL AND 4TH YEAR MEMBER OF GIRLS OF STEEL. THIS YEAR SHE IS THE MEDIA LEAD AND A MEMBER OF THE PROGRAMMING TEAM. OUTSIDE OF GOS, SHE'S A PART OF THE STUDENT GOVERNMENT - VICE PRESIDENT OF HER CLASS, FBLA, GLOBAL LEADERSHIP, AND STEM CLUBS AT HER SCHOOL.

### **PRESENTER -RACHEL SADEH:**

RACHEL IS A 17 YEAR OLD HIGH SCHOOL SENIOR AND MEMBER OF THE MEDIA/VIDEO TEAM, MECHANICAL, AND DRIVE TEAM ON GIRLS OF STEEL. SHE HOPES TO STUDY ENVIRONMENTAL ENGINEERING OR SOME SORT OF DESIGN. OUTSIDE OF GIRLS OF STEEL, SHE STUDIES PIANO, IS ON THE VARSITY RUNNING TEAMS, A STUDENT COUNCIL MEMBER, LEADER OF THE GO GREEN CLUB, AND COACH FOR HER SCHOOL'S GIRLS ON THE RUN GROUP. SHE'S INTERESTED IN DESIGNING PRODUCTS TO HELP DIVERSIFY STEM FIELDS.

## HOW TO BUILD A ROBOT WITH LOW RESOURCES:

TEAM 5036, THE ROBO DEVILS, PRESENTS "HOW TO BUILD A COMPETITIVE ROBOT WITH LOW RESOURCES". BEING A LOW RESOURCES TEAM, WE WILL SHOW YOU ALL THE TIPS AND TRICKS TO BUILD A COMPETITIVE ROBOT LIKE DESIGN STRATEGY AND HOW TO SPECIALIZE YOUR ROBOT. THIS WORKSHOP IS MEANT TO HELP YOU BUILD A ROBOT THAT REACHS A GOAL THAT YOUR TEAM WANTS, MAY THAT BE WIN A BLUE BANNER, MAKE IT TO DCMP OR MAKE IT TO CHAMPS.

### PRESENTER - SOHAIB NADEEM:

SOHAIB WAS ONE OF THE FIRST STUDENTS ON TEAM 5036 AND NOW HE'S A SEASONED MENTOR AND THE TEAMS DRIVE COACH. SOHAIB HAS COACHED THE TEAM TO 2 WORLD CHAMPIONSHIPS APPEARANCES. HE IS IN HIS 3RD YEAR STUDYING MECHATRONICS ENGINEERING AT UOIT AND HE KNOWS HIS WAY AROUND A ROBOT.

### PRESENTER - SABIN GHIMIRE:

SABIN IS A 3RD YEAR MEMBER OF TEAM 5036 AND OUR TEAMS TECHNICAL LEAD. NOT ONLY IS HE GOOD AT BUILDING ROBOTS, HE IS GOOD AT DESIGNING THEM AS 5036S CAD LEAD.

### PRESENTER - ANOUSHKA KALIYAMBATH:

ANOUSHKA IS A 3RD YEAR MEMBER OF TEAM 5036 AND OUR TEAMS PNEUMATICS LEAD. IN HER FIRST YEAR SHE WAS PART OF THE BUILD TEAM AND IN HER SECOND YEAR SHE TRAINED IN PNEUMATICS TO BECOME OUR LEAD THIS YEAR.

## **MORE THAN A VIDEO: HOW TO USE YOUR MEDIA EFFORTS TO HELP TEAMS IN NEED:**

LAST YEAR, ORBIT ROBOTICS LAUNCHED THEIR INITIATIVE TO PRODUCE A SERIES OF VIDEOS FOR CANADIAN FIRST NATIONS AND ROOKIE TEAMS IN NEED. TO DATE, THEY HAVE HELPED SIX TEAMS WITH THEIR SHOWCASE VIDEOS, EARNING OVER \$55,500 IN NEW SPONSORSHIPS FOR TEAMS ALL OVER CANADA AND GROWING. AT THIS WORKSHOP, TEAM REPRESENTATIVES WILL BE TELLING YOU MORE ABOUT THEIR ROOKIE TEAM VIDEO CREATION EXPERIENCE, AND WILL TEACH YOU HOW TO STORYBOARD A ROOKIE TEAM VIDEO OF YOUR OWN. COME OUT AND VISIT THIS WORKSHOP TO LEARN HOW YOU CAN START YOUR OWN ROOKIE TEAM VIDEO INITIATIVE ON YOUR FRC TEAM!

### **PRESENTER - SAM HOLLINRAKE:**

THE PRESENTERS AT THIS WORKSHOP WILL BE EXPERIENCED ORBIT ROBOTICS MEDIA MEMBERS AS WELL AS NEW TEAM MEMBERS VOLUNTEERS READY TO SHARE THEIR PASSION FOR VIDEOGRAPHY.

## **ELECTRICAL 101 WITH 1310:**

THIS WORKSHOP WILL HELP GIVE YOU A BASIC UNDERSTANDING OF THE ELECTRICAL SYSTEM ON AN FRC ROBOT. WE WILL GO OVER THE COMPONENTS AND WHAT THEY DO, AS WELL AS HOW IT ALL COMES TOGETHER TO GIVE YOUR ROBOT THE POWER TO DO WHAT IT WAS BUILT TO DO. IF YOU'RE INTERESTED IN TRYING YOUR HAND AT A BIT OF ELECTRICAL OR ARE SIMPLY CURIOUS ABOUT HOW IT ALL WORKS YOU MIGHT WANT TO CHECK OUT THIS WORKSHOP.

## ELECTRICAL WITH 1310 CONTINUED...

### **PRESENTER - KAYLA VERGE:**

KAYLA IS AN ELECTRICAL LEAD IN HER THIRD YEAR ON TEAM 1310. SINCE JOINING THE TEAM IN GRADE NINE SHE HAS FOCUSED ALMOST ENTIRELY ON ELECTRICAL AND PNEUMATICS, AND HAS LEARNED A LOT FROM DOING SO. OUTSIDE OF ROBOTICS, SHE ENJOYS RUNNING AND PLAYING VARIOUS SPORTS SUCH AS SOCCER.

## **PLATE AND STANDOFF CONSTRUCTION: A SIMPLE 2D METHOD FOR CREATING ACCURATE 3D ROBOT PARTS**

IT'S HARD TO MAKE ROBUST 3D ROBOT PARTS. TO ADDRESS THIS, WE'LL DESCRIBE A METHOD THAT USES FLAT PLATES CONNECTED BY STANDOFFS WHICH REINFORCE THOSE PLATES. THE RESULT IS A 3D SUBSYSTEM THAT IS MADE UP OF SIMPLE 2D PARTS. THE GIRLS OF STEEL HAVE USED PLATE AND STANDOFF SUCCESSFULLY IN ALL OF OUR ROBOT COMPONENTS LAST YEAR WITH SATISFACTORY RESULTS.

### **PRESENTER - TEADORA GILDENGERS:**

TEADORA A 9TH GRADE 2ND YEAR MEMBER OF THE GIRLS OF STEEL. SHE WAS A MEMBER OF FTC TEAM 9981, GIRLS OF STEEL LOVELACE LAST YEAR. IN HER FREE TIME SHE ENJOYS READING, DEBATING, AND SPENDING TIME WITH HER FRIENDS. AS A MEMBER OF THE FINANCE SUBTEAM ON GIRLS OF STEEL, SHE IS INTERESTED IN HOW FINANCE CAN IMPACT THE STEM COMMUNITY.

## PLATE AND STANDOFF CONSTRUCTION CONTINUED...

### **PRESENTER - ANNA NESBITT:**

ANNA IS A 15 YEAR OLD HIGH SCHOOL SOPHOMORE. SHE IS THE OUTREACH LEAD ON GIRLS OF STEEL ROBOTICS, A MEMBER OF THE PROGRAMMING TEAM, AND IS PASSIONATE ABOUT ADVOCACY. SHE IS INTERESTED IN INCREASING ACCESS TO STEM FOR ALL STUDENTS AND HAS BEEN A PART OF FIRST FOR 5 YEARS.

RACHEL SADEH

### **PRESENTER -SWATHI SENTHIL:**

SWATHI IS A JUNIOR IN HIGH SCHOOL AND 4TH YEAR MEMBER OF GIRLS OF STEEL. THIS YEAR SHE IS THE MEDIA LEAD AND A A MEMBER OF THE PROGRAMMING TEAM. OUTSIDE OF GOS, SHE'S A PART OF THE STUDENT GOVERNMENT - VICE PRESIDENT OF HER CLASS, FBLA, GLOBAL LEADERSHIP, AND STEM CLUBS AT HER SCHOOL.

### **PRESENTER -RACHEL SADEH:**

RACHEL IS A 17 YEAR OLD HIGH SCHOOL SENIOR AND MEMBER OF THE MEDIA/VIDEO TEAM, MECHANICAL, AND DRIVE TEAM ON GIRLS OF STEEL. SHE HOPES TO STUDY ENVIRONMENTAL ENGINEERING OR SOME SORT OF DESIGN. OUTSIDE OF GIRLS OF STEEL, SHE STUDIES PIANO, IS ON THE VARSITY RUNNING TEAMS, A STUDENT COUNCIL MEMBER, LEADER OF THE GO GREEN CLUB, AND COACH FOR HER SCHOOL'S GIRLS ON THE RUN GROUP. SHE'S INTERESTED IN DESIGNING PRODUCTS TO HELP DIVERSIFY STEM FIELDS.



## HOW TO START FLL TEAMS IN YOUR COMMUNITY:

THIS WORKSHOP WILL ALLOW PARTICIPANTS TO GAIN A DEEPER UNDERSTANDING OF HOW TO START FLL TEAMS IN THEIR COMMUNITY. THEY WILL BE PROVIDED WITH RESOURCES AND TIPS AND TRICKS NEEDED TO CREATE, MANAGE AND SUSTAIN AN FLL OR FLLJR TEAM WHILE COMPLETING SHORT ACTIVITIES. THIS IS ESPECIALLY AN EXCELLENT OPPORTUNITY FOR TEAMS WHO ARE NEW TO OUTREACH, AS IT IS A GREAT WAY TO IMPACT THE COMMUNITY POSITIVELY.

### PRESENTER - ABITHA ARUMUGALINGAM:

HI MY NAME IS ABITHA ARUMUGALINGAM! I TOOK PART IN THE FIRST ROBOTICS COMPETITION AND GOT THE OPPORTUNITY TO BE APART OF TWO TEAMS. IN MY ROOKIE YEAR, I WAS APART OF A TEAM 6387, AND I AM CURRENTLY ON TEAM 4939. I ENJOY DOING CREATIVE WRITING AND OF COURSE ROBOTICS FOR LEISURE. MY FUTURE GOALS ARE WORKING IN THE STEM FIELD AND EMPOWERING FUTURE LEADERS IN STEM!

### PRESENTER - MEHAK DHALIWAL:

HI THERE! MY NAME IS MEHAK DHALIWAL, AND I AM CURRENTLY A GRADE 10 STUDENT AT CENTRAL PEEL SS. IT IS MY THIRD YEAR IN FRC AND SECOND YEAR BEING APART OF TEAM 4939. MY ROLES ON THE TEAM ARE MECHANICAL, OUTREACH/CHAIRMAN'S AND POTENTIAL DRIVER; AND CONTINUE TO LEARN ABOUT PNEUMATICS AND ELECTRICAL. BEING INVOLVED WITH ROBOTICS SINCE GRADE SIX, I WAS INTRODUCED TO THE LACK OF FEMALE PARTICIPATION. I HOPE TO EMPOWER MORE FEMALES INTO STEM, THROUGH THE GIRLS IN STEM EXECUTIVE ADVISORY COUNCIL. AS PER MY INTEREST, I ENJOY SCIENCE, DANCE, VOLLEYBALL AND ENGAGING STUDENTS INTO STEM

# HOW TO START FLL TEAMS CONTINUED...

## PRESENTER - ANUSHA MANE:

MY NAME IS ANUSHA MANE, AND I WORK IN THE MARKETING AND OUTREACH DIVISIONS OF TEAM 4939 ALLSPARK9. I'M PASSIONATE ABOUT SCIENCE, TECHNOLOGY, POLITICS AND LITERATURE. I AIM TO MAKE MY CAREER DOING BUSINESS IN THE STEM FIELDS, AND ADVOCATING FOR SCIENTIFIC RESEARCH AND EXPLORATION FOR HUMANITARIAN PURPOSES

## PRESENTER - BRIJESH PATEL:

MY NAME IS BRIJESHA PATEL, AND I'M A GRADE 12 STUDENT WHO PARTICIPATES IN THE FIRST ROBOTICS COMPETITION WITH TEAM 4939. AS PART OF THE TEAM I HELP DESIGN/BUILD THE ROBOT AS WELL AS ASSIST WITH OUTREACH EVENTS TO TEACH AND INSPIRE STUDENTS ABOUT STEM. AS FOR THE FUTURE, I HOPE TO CONTINUE HELPING WITH FIRST AND PURSUE A CAREER IN A STEM-RELATED FIELD.

## PRESENTER - KEERAT JUNEJA:

HI THERE! MY NAME IS KEERAT JUNEJA, AND I AM A GRADE 10 STUDENT AT CENTRAL PEEL. I HAVE PARTICIPATED IN FIRST ROBOTICS SINCE I WAS ELEVEN YEARS OLD. AS I STARTED FLL AS AN EAGER GRADE 6 STUDENT. AS OF NOW, I AM CURRENTLY THE HEAD OF MARKETING ON FRC ROBOTICS TEAM 4939. I AM ALSO APART OF THE OUTREACH AND SCOUTING. EQUALITY.

## PRESENTER - BINAL KALRA:

MY NAME IS BINALPREET KALRA, AND I'M A GRADE 10 STUDENT AT CENTRAL PEEL SS, A PART OF THE FRC TEAM, TEAM 4939, ALLSPARK9. MY CURRENT ROLES ON THE TEAM INCLUDE MECHANICAL, CAD, OUTREACH, AND CHAIRMAN'S; AND I'M CURRENTLY LEARNING PNEUMATICS AND ELECTRICAL AS WELL. AS FOR INTERESTS, I AM INTRIGUED BY SCIENCE, MATH, VISUAL ARTS, SPORTS, COMMUNITY SERVICE AND POETRY.

## **PROGRAMMING 101:**

THIS WORKSHOP WILL COVER THE BASICS OF PROGRAMMING, WHICH ARE THE BUILDING BLOCKS OF CODE. MOST OF THESE SKILLS WILL BE APPLICABLE TO ALL SOFTWARE, NOT EXCLUSIVELY TO FIRST. SOME COMPONENTS OF THE OVERVIEW INCLUDE DATA TYPES, IF/ELSE STATEMENTS, AND FOR LOOPS.

### **PRESENTER - CAITLIN BRIDEL:**

CAITLIN LEADS THE PROGRAMMING SUB-TEAM ON SWAT 771. FOR THE PAST 4 YEARS SHE'S BEEN ON THE TEAM. FIRST HAS TAUGHT HER HOW TO PROBLEM SOLVE, WORK AS PART OF A TEAM, AND BE MORE CONFIDENT. AFTER SHE GRADUATES, SHE WANTS TO HELP DEVELOP TECHNOLOGY THAT CAN BE USED TO SOLVE BOTH SCIENTIFIC AND SOCIAL PROBLEMS ALIKE.

## **HOW TO MANAGE A LARGE TEAM, STUDENT LED, ROBOT BUILD:**

THIS WORKSHOP WILL PRESENT THE WAY TEAM 1511 ROLLING THUNDER MANAGES A ROBOT BUILD WITH MORE THAN 30 STUDENTS AND 15 MENTORS. WE WILL REVIEW A PARALLEL PROCESS DIVISION OF LABOR AS WELL AS INTEGRATION OF LABOR STREAMS. ORGANIZATION OF SUBTEAMS, ROBOT DESIGN DECISION MAKING, ROBOT DESIGN SCHEDULING, PART TRACKING (FROM DESIGN THROUGH ASSEMBLY), INTEGRATION, AND WHY TWO ROBOTS? WILL BE REVIEWED WITH AN EYE TOWARDS RESOURCE MANAGEMENT AND A PRIMARY FOCUS ON STUDENT LED DECISIONS AND STUDENT LED DESIGN.

### **PRESENTER - ROSEANNE KHALEEL:**

ROSEANNE KHALEEL IS A MECHANICAL MENTOR AND ROBOT BUILD PROJECT MANAGER FOR TEAM 1511 ROLLING THUNDER. SHE HAS BEEN WITH THE TEAM SINCE 2012 AND HAS MANAGED THE ROBOT BUILD SINCE 2015. SHE IS A PRACTICING ARCHITECT GOING ON 30 YEARS AND THINKS OF ROBOTS A MINI-BUILDINGS. SHE HAS TWO M.ARCHS FROM SYRACUSE UNIVERSITY AND A BSAD FROM MIT.

## **THE ANATOMY OF A FUNCTIONAL TEAM:**

LET'S FACE IT: TEAMS ARE DIFFICULT. WHEN WORKING WITH A GROUP OF DIVERSE, TALENTED AND OPINIONATED INDIVIDUALS, IT CAN BE HARD TO GET THEM TO WORK TOGETHER AND AGREE. AND THE SOLUTION ISN'T AS EASY AS MERELY TELLING EVERYONE TO "GET ALONG." IN THIS PRESENTATION, I WILL DELVE DEEP INTO THE ANATOMY OF A GOOD TEAM, AND EXPLAIN THE TYPES OF MINDSETS AND PRACTICES THAT ALLOW TEAMS TO COOPERATE SMOOTHLY AND EFFICIENTLY. THOUGH IT'S SET IN THE CONTEXT OF FRC, THESE PRINCIPLES CAN BE APPLIED TO MANY TYPES OF PROJECT GROUPS THAT YOU MAY WORK WITH. STRONGLY RECOMMENDED FOR ANYONE WHO SERVES ANY FORM OF LEADERSHIP POSITION ON A TEAM

### **PRESENTER - ASHA MILLS EMMITT:**

ASHA HAS BEEN IN FRC FOR FOUR YEARS AND IS THE CO-CAPTAIN OF TEAM 865 WARP7. HE LEAD THE DESIGN TEAM OF THEIR 2018 ROBOT AND WILL CONTINUE TO DO SO FOR 2019. ASHA ACQUIRED A PASSION FOR TEAM DYNAMICS THROUGH SHAD AFTER HEARING LECTURES ABOUT WHAT MAKES A TEAM SUCCESSFUL.

## **FUTURE ENGINEERING STUDENTS Q&A PANEL:**

THIS WORKSHOP WILL PRESENT THE WAY TEAM 1511 ROLLING THUNDER MANAGES A ROBOT BUILD WITH MORE THAN 30 STUDENTS AND 15 MENTORS. WE WILL REVIEW A PARALLEL PROCESS DIVISION OF LABOR AS WELL AS INTEGRATION OF LABOR STREAMS. ORGANIZATION OF SUBTEAMS, ROBOT DESIGN DECISION MAKING, ROBOT DESIGN SCHEDULING, PART TRACKING (FROM DESIGN THROUGH ASSEMBLY), INTEGRATION, AND WHY TWO ROBOTS? WILL BE REVIEWED WITH AN EYE TOWARDS RESOURCE MANAGEMENT AND A PRIMARY FOCUS ON STUDENT LED DECISIONS AND STUDENT LED DESIGN.

# FUTURE ENGINEERING STUDENTS CONTINUED...

## **PRESENTER - TRESTAN ELSEA:**

TRESTAN ELSEA IS A SECOND YEAR CIVIL ENGINEERING STUDENT AT RYERSON ENGINEERING. CURRENTLY, SHE IS THE EVENT COORDINATOR FOR RYERSON SOCIETY FOR ENGINEERING(RSCE). A MEMBER OF THE RYERSON CONCRETE TOBOGGAN TEAM (GNCTR), AND AN ENGINEERING FROSH LEADER. TRESTAN IS ALUMNI OF FRC TEAM 4920, THE BELLE RIVER AUTOMATONS.

## **PRESENTER - MARIA BOTOS:**

MARIA BOTOS IS A SECOND YEAR ELECTRICAL ENGINEERING STUDENT AT RYERSON UNIVERSITY. SHE IS INVOLVED WITH THE RYERSON ENGINEERING STUDENT SOCIETY AS A FROSH LEADER AND DURING THE SCHOOL YEAR IS PART OF THE RYERSON ROBOTICS TEAM COMPETING IN BOTH THE UNIVERSITY ROVER COMPETITION AND ROBOSUB. IN HIGH SCHOOL SHE WAS PART OF LEASIDE HS' 200B/C VEX ROBOTICS TEAM.

## **PRESENTER - ALEX KOSTAS:**

ALEX KOSTAS, A FORMER MEMBER OF FRC TEAM 854 THE IRON BEARS, IS IN HIS SECOND YEAR OF MECHANICAL ENGINEERING AT RYERSON UNIVERSITY WHERE HE WORKS WITH THE MECHANICAL ENGINEERING COURSE UNION, AND CONCRETE TOBOGGAN TEAM. HE STRIVES TO UPKEEP AND SPREAD THE BEST OF ENGINEERING TRADITION.

## **FUTURE ENGINEERING STUDENTS CONTINUED...**

### **PRESENTER - TIMOTHY GERARD:**

TIMOTHY GERARD HAS STUDIED FOR 2 YEARS AT UOIT FOR MECHANICAL ENGINEERING AND 1 YEAR AT DURHAM FOR MECHANICAL TECHNOLOGIES. DURING HIS TIME AT UOIT, HE BECAME A FROSH LEADER. TIM PARTICIPATED IN FIRST ROBOTICS FOR 4 YEARS WITH TEAM 1310.

### **PRESENTER - JEREMY TOBING:**

JEREMY TOBING IS A SECOND YEAR MECHANICAL ENGINEERING STUDENT AT RYERSON UNIVERSITY. HE IS CURRENTLY WORKING AS A DIGITAL MARKETING ASSISTANT FOR UNDERGRADUATE ADMISSIONS AT RYERSON. JEREMY IS ALSO INVOLVED WITH ORGANIZING THE GEORGE VARI INNOVATION CONFERENCE, THE LARGEST STUDENT-RUN CONFERENCE IN TORONTO. BACK IN HIGH SCHOOL, JEREMY WAS ON FRC TEAM 5076. HE ATTRIBUTES FRC WITH GIVING HIM THE NECESSARY SKILLS TO LAUNCH HIS PROFESSIONAL LIFE.

## **FIRST CANADA EDI PANEL**

INFORMATION TO COME SOON

## **INTRODUCTION TO MECHANICAL:**

THIS WORKSHOP AIMS TO PREPARE INDIVIDUALS WITH THE BASICS OF MECHANICAL DESIGN IN FRC, COVERING COMMON MATERIALS, TOOLS/MACHINES USED, MOTOR CHARACTERISTICS, AND THE BASICS OF MOTION. THIS WORKSHOP IS RECOMMENDED FOR ROOKIE TEAMS AND STUDENTS.

### **PRESENTER - EMILY ADAM:**

EMILY ADAM IS CURRENTLY THE MECHANICAL AND DESIGN CO-LEAD ON SWAT 771. MOST OF HER KNOWLEDGE IS LEARNED FROM RESOURCES MADE BY OTHER FRC TEAMS. HER GOAL NOW IS TO COMPILE THIS KNOWLEDGE FOR HER OWN TEAM AND ENSURE THAT IT WILL BE PASSED ON TO CURRENT AND FUTURE MEMBERS.



## **TEETERING TOWER TRIALS:**

MODERN DAY BUILDINGS ARE BEING BUILT IN ONE DIRECTION: UP INTO THE SKY! ENGINEERS ALL OVER THE GLOBE RACE TO DESIGN AND BUILD SUPER-SKYSCRAPERS THAT CAN EARN THE TITLE OF THE TALLEST IN THE WORLD. TO ACCOMPLISH THIS, SEVERAL FACTORS SUCH AS GEOGRAPHIC AREA, MATERIALS, SUPPORTS, GEOMETRY AND AERODYNAMICS ARE TAKEN INTO CONSIDERATION WHEN DESIGNING SUCH STRUCTURES. USE YOUR PROBLEM SOLVING, COLLABORATION AND CREATIVITY SKILLS TO COMPETE IN BUILDING THE HIGHEST TOWER! CAN YOUR TEAM BUILD THE MOST INGENUOUS STRUCTURE GIVEN LIMITED RESOURCES AND TIME, AND WIN THE AWARD FOR THE TALLEST OF THEM ALL?

### **PRESENTER - SHAHED SALEH:**

SHAHED SALEH IS THE LEAD ROBOT DESIGNER AND SPOKESPERSON ON TEAM FRC 4903 — THE MUSTANGS — SITUATED IN WINDSOR, ONTARIO. SHE IS ALSO A MEMBER OF THE GIRLS IN STEM EXECUTIVE STUDENT ADVISORY COUNCIL WHERE SHE WORKS ON SEVERAL INITIATIVES INCLUDING WRITING LINKEDIN AND FIRST BLOG ARTICLES, HOSTING HOUR OF CODE SESSIONS AND RESEARCHING THE COLLABORATION STRATEGIES AND TENDENCIES OF DIFFERENT GENDERS TO HELP OPTIMIZE THE INCLUSIVITY OF STEM ENVIRONMENTS IN FIRST PROGRAMS AND BEYOND! SHE PLAYS AN ACTIVE ROLE IN HER COMMUNITY AS A MEMBER OF HER CITY'S MAYOR'S YOUTH LEADERSHIP TEAM, A CO-FOUNDING MENTOR AT THE CODING PROGRAM CODEREACH, AND A MENTOR FOR 3 FLL TEAMS.

## **SWAT SPONSORSHIP METHOD:**

IN THIS WORKSHOP, SWAT 771'S BUSINESS LEAD WILL SHARE WITH YOU: THE SWAT SPONSORSHIP METHOD, A FIVE-STEP STRATEGY TO CREATE ENTICING SPONSORSHIP PROPOSALS; ALTERNATIVES TO SPONSORSHIP EMAILS; THE METHODS OF COMMUNICATING OUR SPONSORSHIP INFORMATION; SPONSORSHIP PRESENTATIONS; AND KEY TIPS TO RETAINING SPONSORS.

### **PRESENTER - TIWALOLA ILORI:**

TITI IS SWAT'S BUSINESS LEAD AND THIS IS HER FOURTH YEAR ON THE TEAM. SHE STARTED IN GAME PIECES AND LATER FOUND FURTHER INTEREST IN THE BUSINESS ASPECTS OF THE TEAM. THE BUSINESS SUBTEAM MAINLY FOCUSES ON FINDING SPONSORS TO HELP FUND THE TEAM AND THE ENTREPRENEURSHIP AWARD AT COMPETITION. ALONGSIDE ROBOTICS, TITI PARTICIPATES IN VARIOUS OTHER

## **WHAT IS FIRST ROBOTICS COMPETITION? HOW TO START A FRC TEAM?**

EVERY ASPECT OF WHAT A FRC TEAM SHOULD LOOK LIKE FROM THE ROBOT BUILDING TO THE COMMUNITY BUILDING.

### **PRESENTER - SHADAB SHAHEEN:**

BIOGRAPHY TO COME SOON



## **PROGRAMMING WITH GYROS:**

THIS WORKSHOP WILL COVER THE BASICS OF PROGRAMMING, WHICH ARE THE BUILDING BLOCKS OF CODE. MOST OF THESE SKILLS WILL BE APPLICABLE TO ALL SOFTWARE, NOT EXCLUSIVELY TO FIRST. SOME COMPONENTS OF THE OVERVIEW INCLUDE DATA TYPES, IF/ELSE STATEMENTS, AND FOR LOOPS.

### **PRESENTER - CAITLIN BRIDEL:**

CAITLIN LEADS THE PROGRAMMING SUB-TEAM ON SWAT 771. FOR THE PAST 4 YEARS SHE'S BEEN ON THE TEAM. FIRST HAS TAUGHT HER HOW TO PROBLEM SOLVE, WORK AS PART OF A TEAM, AND BE MORE CONFIDENT. AFTER SHE GRADUATES, SHE WANTS TO HELP DEVELOP TECHNOLOGY THAT CAN BE USED TO SOLVE BOTH SCIENTIFIC AND SOCIAL PROBLEMS ALIKE.

## **HOW TO CREATE A POSITIVE TEAM ENVIRONMENT:**

A POSITIVE AND WELCOMING TEAM ENVIRONMENT IS VERY IMPORTANT TO BOTH BEING A SUCCESSFUL TEAM AND TO MAKING SURE TEAM MEMBERS ARE HAVING FUN. WE ARE GOING TO DISCUSS ALL LEVELS OF COMMUNICATION WITHIN A TEAM. WE WILL ALSO TALK ABOUT HOW THE MEMBERS, STUDENT LEADERS AND MENTORS WORK TOGETHER TO CREATE THIS POSITIVE ENVIRONMENT.

### **PRESENTER - ADIL QUETTAWALA:**

ADIL IS A CO-CAPTAIN OF TEAM 1374, AND HAS BEEN ON THE TEAM FOR THE PAST 3 YEARS. HE BEGAN HIS CAREER AS A PROGRAMMER, SHIFTING TO BUILD AND DABBING A LITTLE BIT IN AWARDS. HE IS EXCITED TO LEAD THE TEAM THIS YEAR!

## POSITIVE TEAM ENVIRONMENT CONTINUED...

### PRESENTER - AMNA FARHAD:

AMNA IS A CO-LEAD OF THE BUILD SUB TEAM OF TEAM 1374. AND HAS BEEN ON THE TEAM FOR 2 YEARS SO FAR. SHE STARTED OUT AS A BUSINESS MEMBER AND MOVED TO BUILD. SHE IS EXCITED TO MEET NEW MEMBERS ON THE TEAM AND PASS ON SOME KNOWLEDGE.

### PRESENTER - AKSHAT DOCTOR:

AKSHAT HAS BEEN THE BUILD LEAD ON TEAM 1374 FOR TWO YEARS AND BEEN ON THE TEAM FOR THREE. HE IMPROVED THE TEAM'S DESIGN PROCESS, RAISING THE TEAM TO A HIGHER STANDARD. AND PLANS ON DOING IT AGAIN THIS YEAR. HE LOVES MACHINING AND INSTRUCTING NEW MEMBERS IN

## ELECTRICAL 101:

INFORMATION TO COME SOON

### PRESENTER - LYDIA HILL:

BIOGRAPHY TO COME SOON

## HOW TO START AND FRC TEAM THAT LASTS:

INFORMATION TO COME SOON

### PRESENTER - BRENDAN SIMONS:

BIOGRAPHY TO COME SOON

## **SO YOU WANT TO SUBMIT FOR CHAIRMAN'S: THE NUTS AND BOLTS OF YOUR FIRST CHAIRMAN'S SUBMISSION:**

THIS PRESENTATION IS GEARED TOWARDS TEAMS WHO ARE CONSIDERING SUBMITTING FOR CHAIRMAN'S FOR THE FIRST TIME OR TEAMS WHO HAVE SUBMITTED IN THE PAST BUT ARE LOOKING FOR SOME TIPS AND NEW IDEAS. WE WILL COVER TOPICS INCLUDING WHY TEAMS SHOULD SUBMIT FOR CHAIRMAN'S, HOW TEAMS DEMONSTRATE THEY ARE WORTHY OF CHAIRMAN'S, WHERE TO BEGIN, AND THE NUTS AND BOLTS OF WHAT MUST BE DONE FOR YOUR SUBMISSION.

### **:PRESENTERS - MONICA ALDERSON**

MONICA IS MAKESHIFT'S ADULT MENTORING LEAD FOR CHAIRMAN'S. SHE IS AN OCCUPATIONAL THERAPIST AND HAS BEEN WITH THE TEAM SINCE IT'S INCEPTION. MONICA IS KNOWN FOR HER EXUBERANT SUPPORT FOR ALL TEAMS AT FIRST EVENTS.

### **PRESENTERS - ANGELA TOLLIS:**

ANGELA HAS BEEN ON MAKESHIFT FOR FOUR YEARS, CONTRIBUTING TO THE MECHANICAL, OUTREACH, AND AWARDS SUB-TEAMS. SHE HAS PRESENTED CHAIRMAN'S AT THE DISTRICT, DISTRICT CHAMPIONSHIP AND WORLD'S LEVELS. ANGELA WAS CO-CAPTAIN OF 4039 LAST YEAR AND IS LOOKING FORWARD TO STUDYING MECHANICAL ENGINEERING NEXT YEAR.

## **FACING ADVERSITY PANEL:**

INFORMATION TO COME SOON

### **PRESENTERS:**

BIOGRAPHIES TO COME SOON

## **A GUIDE TO KICKOFF: DISSECTING THE GAME**

THERE ARE THREE VERY IMPORTANT DAYS DURING THE SEASON. FIRST: THE LAST DAY OF BUILD SEASON. GET THAT ROBOT IN THE BAG! SECOND: THE SECOND TO LAST DAY OF BUILD SEASON. NOW IS THE TIME TO FIND OUT WHAT YOU'RE REALLY MADE OF AND BUILD AND PROGRAM A LARGE PART OF A ROBOT IN 24 HOURS. (NOTE: THIS IS A REFLECTION OF MY TEAM. PLEASE DO NOT TAKE OFFENSE TO ANY OF THIS. IT IS ALL IN GOOD FUN.) BUT THIS PRESENTATION IS ABOUT THAT OTHER DAY, WHICH IN MY OPINION IS THE MOST IMPORTANT: KICKOFF. IN THIS PRESENTATION, WE WILL DISCUSS HOW TO BREAK DOWN AN FRC GAME. SOME OF THE THINGS WE WILL DISCUSS ARE: FINDING KEY STRATEGIES, IDENTIFYING POTENTIAL PLAYS, POSSIBLE TYPES OF ROBOTS, AND THE TYPE OF ALLIANCE THAT WILL WIN A CHAMPIONSHIP. WE WILL BE TALKING ABOUT FRC STEREOTYPES, AND THEN DIVING INTO GAMES FROM THE PAST.

### **PRESENTER - NAVID KASHEM:**

NAVID HAS BEEN ON STUYPULSE TEAM 694 FOR FOUR YEARS NOW. HE HAS BEEN A PART OF THE TEAM'S ENGINEERING AND STRATEGY DEPARTMENTS, AND IS CURRENTLY THE TEAM'S PRESIDENT OF ENGINEERING. IN 2018, HE WAS SELECTED AT NYC REGIONAL TO BE A DEAN'S LIST FINALIST.