

District Model News

Shawn Lim – Director of District Implementation
FIRST Robotics Canada

October 1, 2016



FOR INSPIRATION AND RECOGNITION OF SCIENCE AND TECHNOLOGY





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About Me

www.firstroboticscanada.org

- 188: Mark Breadner + Karthik K
- My Sister/FIRST Scholarships: Kettering
- FSI: An FRC Startup and Sponsor
- Teacher: 1310, 610
- Director: District Implementation
- Roles: Student, Mentor, Sponsor, Teacher, Director





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■ What?

- Geography: Ontario
- All Events and Teams in Ontario
- A different set of rules
 - Costs, Registration, Payments
 - Number of Plays and Size + Duration of Events
 - Qualification to District and World Championships
 - Practicing with / Unbagging Your Robot





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■ Why?

- How do we grow and sustain FRC?
- Make it more cost effective
 - Both for teams AND to run events
- Make it more scalable
 - District Events
 - District Championship
 - World Championship





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- The Team Experience
 - Costs
 - Events
 - Registration, Grants and Payments
 - Practice + Unbag Time (2 vs 3 Day Events)
 - Event Production Quality
 - Qualification to DCMP and CMP (Points)





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Costs

www.firstroboticscanada.org

- **\$7500** for **2** District Events
- \$8500 for Rookies but **\$6500** after grants
 - \$2000 instant grant from FIRST Canada
 - Rookies eligible for more grants...
- **\$1000** for additional District Events
- **\$6550*** for additional Regionals
 - Must still do 2 Districts Events
- **\$3500** for District Championship (DCMP)
- **\$6550*** for World Championship (CMP)





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Costs

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Veteran Cost Comparison – Championship Track (Approximate)

# Events	Regional Model	District Model	Difference
1	\$6,550 1 Regional	N/A	N/A
2	\$11,790 2 Regionals	\$7,500 2 Districts	\$4,290
3	\$17,030 3 Regionals	\$11,000 2 Districts + DCMP	\$6,030
4	\$23,580 3 Regionals + CMP	\$17,550 2 Districts + DCMP + CMP	\$6,030

* \$1.00 USD = \$1.31 CDN

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Costs

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Veteran Cost Comparison – Budget Track (Approximate)

# Events	Regional Model	District Model	Difference
1	\$6,550 1 Regional	N/A	N/A
2	\$11,790 2 Regionals	\$7,500 2 Districts	\$4,290
3	\$17,030 3 Regionals	\$8,500 3 Districts	\$8,530
4	\$23,580 3 Regionals + CMP	\$9,500 4 Districts – NOT LIKELY	\$14,080

* \$1.00 USD = \$1.31 CDN

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Events

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FIRST ROBOTICS COMPETITION ONTARIO DISTRICT EVENTS 2017

WEEK 1

DURHAM COLLEGE EVENT

MARCH 03 – MARCH 05, 2017

WEEK 2

RYERSON UNIVERSITY EVENT

MARCH 10 – MARCH 12, 2017

WEEK 3

VICTORIA PARK COLLEGIATE EVENT

MARCH 17 – MARCH 19, 2017

WEEK 4

UNIVERSITY OF WATERLOO EVENT

MARCH 23 – MARCH 25, 2017

WEEK 5

UNIVERSITY OF WINDSOR EVENT

MARCH 30 – APRIL 01, 2017

WEEK 6

NIPISSING UNIVERSITY EVENT

APRIL 06 – APRIL 08, 2017

GEORGIAN COLLEGE EVENT

MARCH 24 – MARCH 26, 2017

WESTERN UNIVERSITY EVENT

MARCH 31 – APRIL 02, 2017

MCMASTER UNIVERSITY EVENT

APRIL 07 – APRIL 09, 2017

WEEK 7

ONTARIO DISTRICT CHAMPIONSHIP EVENT

APRIL 12 – APRIL 15, 2017





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Registration, Grants, Payments

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■ Registration

- New Portal website
- Lead Coach/Mentor 1 and 2
 - Log in ASAP
 - Agree to Consent and Release
 - Check if Background Check is needed
 - Must have 2 mentors complete all above
- 1st District Event Registration: **Oct 5**
- 2nd District Event Registration: **???**





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Registration, Grants, Payments

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TEAM CONTACTS

< Back to Dashboard

INVITE CONTACTS

CONTACTS

PARENTS/GUARDIANS

FULL ROSTER

Primary Contacts

[Redacted Name]

Lead Coach/Mentor 1



[Redacted Email]



[Redacted Phone]



Consent & release



YPP

INVITE REPLACEMENT

[Redacted Name]

Lead Coach/Mentor 2



[Redacted Email]



[Redacted Phone]



Consent & release



YPP

INVITE REPLACEMENT





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Registration, Grants, Payments

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- Payments
 - Do not pay FIRST HQ in the US
 - Do not pay through the Portal website – even if there is a warning on the website
 - FIRST Canada will e-mail Lead Coach/Mentors an invoice on **Nov 15**
 - Paid directly to FIRST Canada by **Nov 30**





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Registration, Grants, Payments

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- Grants and Sponsorships
 - Receiving funds through FIRST HQ or FIRST Canada?
 - FIRST HQ will inform FIRST Canada
 - FIRST Canada will apply funds directly to registration costs
 - Extra funds will be disbursed by cheque after the registration payment period has completed





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- District Events are 2 Days of Competition
 - Day 0 - Late Afternoon Start
 - Load-in, Practice Matches, Inspection
 - Day 1
 - Inspection
 - Qualification Matches
 - Day 2
 - Qualification and Elimination Matches
 - Awards Ceremony
 - This agenda not guaranteed at all events!





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Registration, Grants, Payments

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- Practice Day
 - No longer an entire day
 - A few hours at most on Day 0
- Unbag Time
 - One week leading up to your District Event you are allowed up to 6 hours of unbag time
 - Must be unbagged minimum 2 hours each session
 - Rules may change for 2017





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Event Production Quality

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- Many Other Districts Have:
 - Smaller Venues – High School Gyms
 - Less A/V
 - Lower Production Quality
- Ontario District Philosophy:
 - Maintain as much of the Regional experience as possible
 - We may not succeed, but are going to try...





■ Points System

- Robot doing well at District Events and DCMP
 - Ranking high in qualifications (formula)
 - Alliance Captain, or early draft pick (chart)
 - Advancing deep into elimination rounds (chart)
- Winning Judged Awards
 - Chairman's
 - Engineering Inspiration
 - Rookie All-Star... and more
- 1st and 2nd Year Team Bonus Points





■ Ranking Formula

$$\begin{aligned} & \text{QualificationPoints}(R, N, \alpha) \\ &= \left[\text{InvERF} \left(\frac{N - 2R + 2}{\alpha N} \right) \left(\frac{10}{\text{InvERF} \left(\frac{1}{\alpha} \right)} \right) + 12 \right] \end{aligned}$$





■ Ranking Formula (Simplified)

• Ranked 1st = ~22 Points

- somewhere in between = somewhere in between
- it's not linear
- S-shaped curve
- more teams with high points at top of rankings
- more teams with low points at bottom

• Ranked Last = ~4 Points





■ Draft Order Chart

Alliance	Alliance Captain	1 st Pick	2 nd Pick
1	16	16	1
2	15	15	2
3	14	14	3
4	13	13	4
5	12	12	5
6	11	11	6
7	10	10	7
8	9	9	8





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■ Elimination Round Chart

Progress	Points
Quarter Finalists	0
Semi Finalists	10
Finalists	20
Winners	30





■ Awards Chart

Progress	Points
Chairman's	10
Engineering Inspiration Rookie All Star	8
All Other Judged Awards	5 Each

■ Team Age Bonus

Age	Points
Rookie	10
2 nd Year	5





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- Qualifying: District Championship (DCMP)
 - **Win a District Chairman's Award**
 - EI qualifies for EI judging at DCMP, but not robot!
 - Same with RAS (and Dean's List)
 - Total points from first 2 District Events
 - No points earned after first 2
 - Top teams in Ontario qualify, up to 60 Teams





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Qualification System

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- Qualifying: World Championship (CMP)
 - Judged as Top 3* Chairman's in Ontario
 - Judged as Top 1 EI in Ontario
 - Judged as Top 1 RAS in Ontario
 - *Max set by FIRST HQ
 - Top Point Earners
 - District Events Points + DCMP Points X 3

- **Approximately 27 spots for Ontario**





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How You Can Help

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- Key Volunteers
 - FTA
 - LRI
 - HeadRef
 - Field Supervisor
 - CSA
- Need to be an experienced volunteer:
 - Referee, Inspector, Setup/Teardown, CSA





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Qualification System

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Thank You

Questions?

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