



Citrus Circuits  
Fall Workshop Series

Picklist Formation and  
Alliance Selection

by Hanson Li with  
Richard McCann

“Your robot wins matches,  
your scouting wins competitions”



# Who should be here?

- Teams that are consistently alliance captains
- Teams that could potentially be alliance captains
- Teams that are aiming to be on successful alliances
- Teams that aspire to be alliance captains



# What if we're a high-seed captain?

- Top ~1-4
- Look for offensive power in your first pick
  - Technical capability is a plus
- Look for utility in your second pick
  - Often auto/endgame points
  - Versatility in teleop
  - The higher you seed, the lower your second pick
- Scout!



# What if we're a low-seed captain?

- Top ~5-8
- Prepare for all scenarios; game it out
- Look for complimentary strength in your first pick
  - Pick a robot that can do what you can't do
- Your second pick should fill holes
  - Which alliance captain will you face?
  - You will have a strong second pick
- Scout!



# What if we're not seeded high?

- Talk to the teams that are seeded high
  - Find out their criteria
    - This presentation is an example!
  - Could you be a first pick or a second pick?
    - First pick - offensive power (usually)
    - Second pick - alliance dependent
  - Understand that any alliance can pick you
- Be cooperative in quals and follow match strategies
- Be reliable and consistent
- Scout!



# Picklist Formation



# Scouting Data

Team	First Pick Ability	First Pick Rank	Draft Order	Num Alliance Switch Cubes Auto	Num Alliance Switch Cubes Tele	Num Scale Cubes Auto	Num Scale Cubes Tele	Avg Num Scale Cubes by 100 s	Num Opponent Switch Cubes Tele	Num Cubes in Exchange Tele	Time to Fill Vault	Num all cubed scored	Reliability	Matches Played	R-Score Driving Ability	Robot Width	Robot Length	Max Cubes on Scale
1678	63.62	1	1.00	0.8	0.80	1.30	4.90	3.80	1.20	0.30		9.30	100.00%	10	2.35			9.00
118	59.17	2	2.00	0.5	0.20	1.40	3.60	3.80	0.80	0.90	73.76	7.40	100.00%	10	2.13	28.00	33.00	8.00
971	53.08	3	3.00	0.3	1.20	1.00	4.40	3.20	0.30	0.30		7.50	100.00%	10	1.81	28.00	33.00	9.00
1619	49.27	4	4.00	0.8	0.45	0.82	4.18	2.64	1.64	0.55	77.81	8.45	100.00%	11	1.94	28.00	33.00	10.00
3310	43.77	5	5.00	0.5	0.20	0.50	3.50	2.20	2.40	0.20		7.30	100.00%	10	1.92	28.00	33.00	8.00
3309	42.67	6	6.00	0.1	0.30	0.30	4.00	2.10	2.40	0.10		7.20	100.00%	10	1.69	28.00	33.00	8.00
5554	40.74	7	7.00	0.2	0.60	0.60	4.10	2.50	0.80	1.60	88.76	7.10	100.00%	10	0.32	33.00	28.00	7.00
968	40.16	8	8.00	0.5	0.70	0.00	4.70	2.10	0.40	1.10	65.77	7.40	90.00%	10	1.12	28.00	33.00	9.00
1648	40.12	9	9.00	0.4	1.20	0.40	3.20	2.50	0.80	2.20	65.47	8.20	100.00%	10	0.07	28.00	33.00	7.00
3481	36.91	10	10.00	1.0	0.80	0.00	2.40	1.30	1.40	3.10	83.42	8.70	100.00%	10	1.78	28.00	33.00	6.00
624	35.91	11	11.00	0.6	1.50	0.50	3.40	1.80	1.20	0.40		7.60	100.00%	10	1.03	28.00	33.00	9.00
604	32.36	12	12.00	0.4	0.80	0.20	3.80	1.70	0.50	1.70	68.28	7.40	100.00%	10	0.37	28.00	33.00	8.00
5199	30.68	13	13.00	0.7	0.30	0.10	3.50	1.60	1.40	0.10		6.10	100.00%	10	0.85	28.00	33.00	6.00
5802	28.52	14	14.00	0.2	0.70	0.10	3.20	1.50	1.00	1.20	83.01	6.40	90.00%	10	0.28	28.00	33.00	7.00
687	27.80	15	15.00	1.1	0.50	0.20	2.60	1.40	1.70	1.00	70.70	7.10	100.00%	10	0.46	28.00	33.00	5.00
1982	26.88	16	16.00	0.7	0.20	0.00	3.30	1.10	1.40	1.00	59.88	6.60	100.00%	10	0.85	28.00	33.00	7.00
4513	25.76	17	17.00	0.5	1.50	0.40	2.20	1.50	0.40	2.50	81.17	7.50	100.00%	10	-0.51	28.00	33.00	8.00
1723	25.47	18	18.00	0.5	0.60	0.10	3.20	1.60	0.80	0.50		5.70	100.00%	10	-0.15	27.50	32.50	7.00
3128	25.29	19	19.00	1.2	0.50	0.00	3.10	1.40	0.50	1.80	60.89	7.10	100.00%	10	-0.11	33.00	28.00	6.00
4270	25.06	20	20.00	0.4	0.70	0.00	0.30	0.20	0.80	6.00	75.98	8.20	90.00%	10	1.56	28.00	33.00	1.00
1011	24.61	21	21.00	1.2	0.70	0.00	0.00	0.00	3.70	5.20	55.88	10.80	100.00%	10	1.13	28.00	33.00	0.00
3737	23.95	22	22.00	0.3	0.60	0.20	2.00	0.90	1.00	0.70	106.41	4.80	100.00%	10	1.33	33.00	28.00	6.00
6424	23.49	23	23.00	0.1	1.60	0.00	2.20	0.80	0.40	3.80	58.13	8.10	100.00%	10	-0.11	28.00	33.00	6.00
6474	21.84	24	24.00	0.4	0.30	0.20	3.20	1.40	0.40	0.80	40.19	5.30	100.00%	10	-0.33	33.00	28.00	7.00
4576	21.56	25	25.00	0.0	1.70	0.00	1.00	0.60	0.70	4.30	60.84	7.70	100.00%	10	0.03	28.00	33.00	3.00
832	21.32	26	26.00	0.6	1.20	0.00	1.90	0.90	0.20	2.20	119.90	6.10	90.00%	10	0.28	28.00	33.00	6.00
4468	21.06	27	27.00	0.1	1.70	0.00	0.00	0.00	0.60	5.00	86.52	7.40	100.00%	10	1.35	28.00	33.00	0.00

- Optimized visualization
  - Spreadsheets are great
  - Needs to be set up beforehand
- Spreadsheet formatting
  - Conditional
  - Number
  - Freezing
  - Alternating colors
  - Filters
- See our Scouting Systems workshop





# Meeting Logistics

- Who participates?
  - Too many people can lead to unproductivity
- Logistics
  - Visual aids
  - Dinner
- What position are you in?
  - Seeding
  - Predictions/plans
  - Context
- If you have the data to make a picklist, make one!
  - 12th seed or above should definitely make one!



# Identify Your Goals

Second Pick Ability	Draft Order	Motor	Sandstorm Avg Panels Scored	Rank	Lvl 2 HAB Line Attempts	Level 2 Climb Attempts	Avg Rank Defense	Pushing Ability ELO
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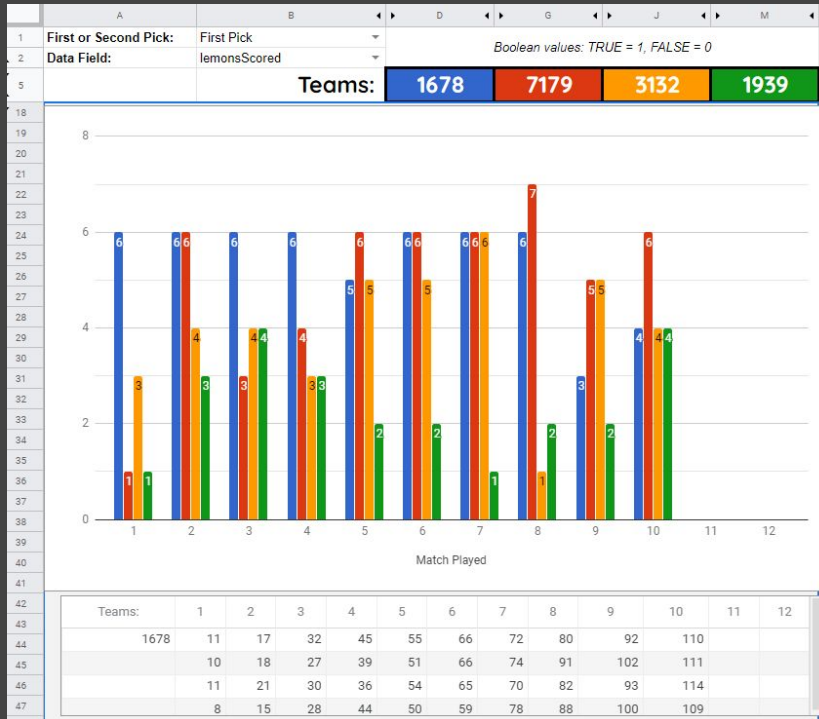
Normalized Driver Ability	Level 2 Climb %	HAB Line Cross Level 2 %	Avg Cargo Scored	Avg Panels Scored	Level 1 HAB Line Attempts	Level 1 Climb Attempts	Level 1 Climb %
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LFM Incap or Noshow %	LFM Avg Time Incap	Matches Played	Weight	Avg Time Defending (sec)	Avg Rank Counter Defense
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- What are your criteria?
  - Valued attributes/data points
  - First vs. Second pick
  - DNPs
  - What is your role?
- List length - 24 for regionals, 32 for champs
- Meeting length
  - Sleep is important
- Predict alliances if you're seeded high



# Creating an Initial Picklist



- Meeting with known alliance partner
- Grind through the data
  - Scouting data
  - Match videos
  - Graphs/trends
  - Anecdotes
  - Observations
- Discuss, Debate, Decide!
  - Pairwise rankings
  - Pros and cons
  - Play devil's advocate
  - Group consensus
- Maintain productivity



preliminary match schedule

match	red	blue	1	1678	1678	1678
11	(1678) 5892 2405	2662 3240 3132	2	330	270	330
17	230 (1678) 3240	7567 4911 2584	3	4911	4911	4911
32	6608 4561 3301	(1678) 2102 7426	4	3301	2301 Fall out	7171
45	3792 7845 2102	4188 118 (1678)	5	118	118	3301
55	7746 7829 308	6443 781 (1678)	6	2900	2900	118
66	4400 (1678) 3039	587 4534 7179	7	264	364	2900
72	386 2183 5006	(1678) 5242 7295	8	364	368	364
90	7746 2440 (1678)	1339 1746 1515	9	1746	1746	1746
92	3024 (1678) 6014	4240 4079 2375	10	7179	7179	264
110	2491 6390 687	7767 5526 (1678)	11	5892	5892	5892
5892 ✓			12	2102	1339	1339
2905 ✓			13	1515	2584	2584
330 - or - make L3 ✓			14	5126	2102	2102
3240			15	7108	6443	6443
2102			16	6443	5126	5126
7476 - or - 2 day / good cycle ✓			17	4188	7108	687
4188 - or - insep 220 alternate D ✓			18	3132	1515	3132
118			19	1339	3132	4561
6443 - or - 220 good at CO for 118 ✓			20	2147	4561	1788
7811 - or - very slow cycles insep 08 ✓			21	2811	2147	2811
4400 - or - variable H cycle, medium cycle ✓			22	2584	2811	1439
3039 - or - 215 - or - 216 (1678) slow at night D ✓			23	2381	1739	7108
5242 - or - medium cycle ✓			24	1939	4188	1575
7775 - or - very slow cycle ✓		1439	25	1788	7746	7746
7746 - or - 2 day / good cycle ✓		393		4775	1788	4188 407
		2447		687	4775	4775 73
				3481	687	3481
				2643	3481	2643
				2900	2643	2900
2900 - or - 2 day / good cycle ✓						

# Your First Draft

- At the end of the picklist meeting, run through the list and make necessary changes
  - Expect to shift teams around the next day
- Prepare questions and observations for the second day of quals



# Second Day of Quals



- Ask the questions you had the night before
  - Ask teams to demonstrate abilities
- Rearrange picklist according to observations, and scouting data if possible
- Picklist should not be finalized until rankings are set



# Alliance Selection





# Alliance Selection



- Be prepared
- Stay in communication!
- Write your picklist on paper beforehand
  - Cross out teams as they become unavailable
  - Don't be *that* person
- Call scout lead/strategist if something unexpected occurs
- Speak with confidence
  - “Graciously/gratefully accepts”
  - “Respectfully declines”
- Confer with your partner on your second/third pick



# Strategic Decisions

- Strategic Declining
  - Safely done as 1-8 seed, risky at 9-12 seed, not done 13 and below
  - Be wary of getting blindsided
- “Scorching the field”
  - When it’s to your advantage
  - Be prepared if you are scorched
    - Maybe consider accepting





# Questions?



## Give us Feedback!





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hzuoli@gmail.com

Thank You!