

This document provides in clear all the information that was used during the F1 Strategy Competition with the exception of race strategy.

The expected results are run using a simple code that simulates theoretical seasons. This codes is comprised of two modules. The first of these modules is the same as the one used during the (livestreamed) driver signing phase. It is optional and allocates the available drivers to the competing teams based on their marketing investments and using the same probability law. The second module takes the team lineups (reliability, chassis, engine, driver 1 and driver 2) and ranks the drivers on each circuit as a function of their performance level, taking into account circuit-specific bonuses. The module then applies a DNF filter to the ranking with probability in line with the team reliability investment and attributes points to the remaining drivers in their ranking order. The point attribution and the race characteristics are as specified in the championship rules.

For Section 1, the code is run with a loop around both of these modules to average results over 10^7 seasons. For Section 2, the code is run in the same way except that the driver signing module is deactivated and the lineup is set to the one determined by the driver signing event for each simulated season.

Expected points scored are accurate to the tenth of point, while nor formal accuracy study has been performed for the ranking probabilities. These probabilities should, however, reflect the performance of the teams with an error inferior to one percent.

1 Financial phase

1.1 Drivers

- Ricardo Raul (BRA) 5.0
- Joris Gootjes (NED) 4.6
- Fabrizio Panduri (ITA) 4.3
- Allan Johnson (GBR) 4.1
- Alfredo Alcarria (SPA) 4.0
- Luigi Disanti (ITA) 3.7
- Akiko Tomiko (JAP) 3.4
- Philipp Krafft (GER) 3.0
- David Wilkinson (GBR) 2.9
- Michel Fabron (FRA) 2.8
- Fabian Metzger (SWI) 2.6
- Simao Faria (POR) 2.4
- Jiang Lin (CHI) 2.3
- Alfonso Llave (SPA) 1.9
- Germain Grisel (FRA) 1.5
- Josh Palmer (AUS) 1.3
- Mitesh Agrawal (IND) 0.9
- Clayton Swift (USA) 0.0
- Armand Brice (FRA) 0.0
- Miko Lautela (FIN) 0.0

1.2 Teams

Team	Name	Affiliation	Mark.	Rel.	Cha.	Eng.
Borregos Racing	William Horkin	Leeds	3.0	1.0	1.5	1.5
BURP	Cédric Beaume	Leeds	2.1	1.7	3.2	0.0
HamiltonianCRCT	Isabelle Telford	UMass Amherst	1.9	2.0	1.5	1.6
Kefford Racing	Charlie Kefford	Leeds	2.6	1.6	2.1	0.7
Lomas Racing	Joe Lomas	Leeds	2.0	0.5	2.0	2.5
Ocon a Matata	Kyran Alles-Shah	Leeds	1.1	1.5	2.2	2.2
ROCA	Chloe Barker	Manchester	0.0	2.6	2.3	1.7
Shiva	Bhartendu Sharma	Dublin City	1.0	2.2	1.9	1.9
SL GP	Samuel Lord	Leeds	0.3	2.7	1.8	2.2
Team Peel	Alexander Peel	Leeds	2.1	2.1	1.4	1.4

Table 1: Table of the teams registered and their investment strategies. Note: a penalty was applied to ROCA for registering late, they loss 0.4%, their Marketing budget was set to 0.0% and they chose where to distribute the rest of the budget.

1.3 Expected results

	Borregos Racing (Leeds)	BURP (Leeds)	HamiltonianCRCT (UMass)	Kefford Racing (Leeds)	Lomas Racing (Leeds)	Ocon a Matata (Leeds)	ROCA (Manchester)	Shiva (Dublin City)	SL GP (Leeds)	Team Peel (Leeds)
Pts	106	116	105	120	89	103	2	68	15	105
1 st	9.4%	18.4%	17.5%	21.1%	3.2%	7.3%	0.0%	4.5%	0.1%	18.5%
2 nd	15.8%	16.4%	12.4%	18.5%	8.4%	12.2%	0.0%	3.8%	0.1%	12.5%
3 rd	17.6%	13.4%	9.6%	14.7%	13.3%	16.4%	0.0%	4.7%	0.1%	10.3%
4 th	16.9%	11.6%	8.5%	12.0%	16.6%	18.0%	0.0%	6.9%	0.2%	9.3%
5 th	15.0%	11.5%	9.2%	10.3%	18.6%	16.6%	0.0%	9.4%	0.2%	9.0%
6 th	12.2%	12.1%	11.5%	9.0%	18.1%	13.9%	0.0%	13.6%	0.3%	9.4%
7 th	8.1%	10.4%	14.5%	7.5%	13.0%	10.7%	0.0%	23.7%	0.6%	11.5%
8 th	4.7%	6.0%	15.8%	6.5%	7.8%	4.6%	0.0%	31.8%	4.4%	18.3%
9 th	0.3%	0.2%	0.9%	0.4%	0.9%	0.2%	0.6%	1.6%	93.7%	1.2%
10 th	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	99.4%	0.0%	0.4%	0.0%

Table 2: Expected team results in terms of number of points and ranking probability at the end of the season.

2 Pre-season

2.1 Lineups

- Borregos Racing (Leeds): Joris Gootjes (4.6)–Alfredo Alcarria (4.0)
- BURP (Leeds): Luigi Disanti (3.7)–Akiko Tomiko (3.4)
- HamiltonianCRCT (UMass): Jiang Lin (2.3)–Alfonso Llave (1.9)
- Kefford Racing (Leeds): Ricardo Raul (5.0)–Fabrizio Panduri (4.3)
- Lomas Racing (Leeds): Allan Johnson (4.1)–Philipp Krafft (3.0)
- Ocon a Matata (Leeds): Fabian Metzger (2.6)–Simao Faria (2.4)
- ROCA (Manchester): Armand Brice (0.0)–Miko Lautela (0.0)
- Shiva (Dublin City): Germain Grisel (1.5)–Josh Palmer (1.3)
- SL GP (Leeds): Mitesh Agrawal (0.9)–Clayton Swift (0.0)
- Team Peel (Leeds): David Wilkinson (2.9)–Michel Fabron (2.8)

2.2 Expected results

Pos	Driver	Team	Points	Pos	Driver	Team	Points
1	Ricardo RAUL	Kefford Racing	109	11	Philipp KRAFFT	Lomas Racing	43
2	Fabrizio PANDURI	Kefford Racing	80	12	Germain GRISEL	Shiva	36
3	Fabian METZGER	Ocon a Matata	77	13	Michel FABRON	Team Peel	30
4	Luigi DISANTI	BURP	68	14	Jiang LIN	HamiltonianCRCT	23
5	Joris GOOTJES	Borregos Racing	62	15	Mitesh AGRAWAL	SL GP	19
6	Simao FARIA	Ocon a Matata	60	16	Josh PALMER	Shiva	18
7	Allan JOHNSON	Lomas Racing	56	17	Alfonso LLAVE	HamiltonianCRCT	8
8	Akiko TOMIKO	BURP	49	18	Clayton SWIFT	SL GP	1
9	Alfredo ALCARRIA	Borregos Racing	45	19	Armand BRICE	ROCA	1
10	David WILKINSON	Team Peel	44	20	Miko LAUTELA	ROCA	1

Table 3: Expected driver results.

	Borregos Racing (Leeds)	BURP (Leeds)	HamiltonianCRCT (UMass)	Kefford Racing (Leeds)	Lomas Racing (Leeds)	Ocon a Matata (Leeds)	ROCA (Manchester)	Shiva (Dublin City)	SL GP (Leeds)	Team Peel (Leeds)
Pts	106	117	31	189	98	137	2	54	20	74
1 st	2.3%	2.2%	0.0%	82.6%	2.8%	10.1%	0.0%	0.0%	0.0%	0.0%
2 nd	13.8%	18.0%	0.0%	11.9%	12.3%	43.9%	0.0%	0.0%	0.0%	0.2%
3 rd	21.1%	33.5%	0.0%	3.7%	15.4%	24.7%	0.0%	0.0%	0.0%	1.6%
4 th	26.9%	28.5%	0.0%	1.4%	20.2%	13.7%	0.0%	0.5%	0.0%	8.9%
5 th	22.3%	14.8%	0.0%	0.4%	23.9%	6.0%	0.0%	3.4%	0.0%	29.2%
6 th	8.8%	2.5%	0.2%	0.1%	13.1%	1.2%	0.0%	19.4%	0.0%	54.7%
7 th	4.1%	0.6%	5.2%	0.0%	9.0%	0.3%	0.0%	75.3%	0.2%	5.3%
8 th	0.7%	0.0%	85.9%	0.0%	2.1%	0.0%	0.0%	1.3%	10.0%	0.1%
9 th	0.2%	0.0%	8.7%	0.0%	1.1%	0.0%	0.1%	0.1%	89.8%	0.0%
10 th	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	99.9%	0.0%	0.0%	0.0%

Table 4: Expected team results.

3 Results

Rk	Firstname	LASTNAME	NAT	Team	SPA	BEL	USA	JAP	CAN	HUN	MON	ITA	FRA	AUS	TOTAL
1	Ricardo	RAUL	BRA	Kefford Racing	DNF	16	20	20	20	DNF	20	8	20	16	140
2	Luigi	DISANTI	ITA	BURP	DNF	DNF	13	16	DNF	DNF	16	10	16	10	81
3	Philipp	KRAFFT	GER	Lomas Racing	20	20	14 th	DNF	6	DNF	DNF	20	DNF	DNF	66
4	Fabrizio	PANDURI	ITA	Kefford Racing	DNF	6	DNF	10	DNF	DNF	13	DNF	13	20	62
5	Germain	GRISEL	FRA	Shiva	6	8	8	1	2	8	3	13	8	4	61
6	Akiko	TOMIKO	JAP	BURP	10	10	16	DNF	DNF	DNF	10	11 th	DNF	6	52
7	Jiang	LIN	CHI	HamiltonianCRCT	8	3	6	2	4	13	DNF	6	10	DNF	52
8	Alfredo	ALCARRIA	SPA	Borregos Racing	DNF	DNF	11 th	13	13	DNF	DNF	4	2	13	45
9	Allan	JOHNSON	GBR	Lomas Racing	DNF	DNF	DNF	14 th	16	20	DNF	DNF	DNF	DNF	36
10	Fabian	METZGER	SWI	Ocon a Matata	13	15 th	1	6	10	DNF	4	15 th	DNF	DNF	34
11	Mitesh	AGRAWAL	IND	SL GP	12 th	13	2	4	3	3	DSQ	1	3	3	32
12	Simao	FARIA	POR	Ocon a Matata	DNF	DNF	DNF	8	8	DNF	8	16 th	16 th	8	32
13	Josh	PALMER	AUS	Shiva	4	DNF	3	13 th	DNF	DNF	2	16	6	11 th	31
14	Alfonso	LLAVE	SPA	HamiltonianCRCT	3	4	10	DNF	DNF	DNF	6	2	4	DNF	29
15	Joris	GOOTJES	NED	Borregos Racing	16	2	DNF	DNF	DNF	DNF	DNF	DNF	11 th	DNF	18
16	Michel	FABRON	FRA	Team Peel	DNF	14 th	15 th	DNF	1	16	DSQ	17 th	15 th	14 th	17
17	David	WILKINSON	GBR	Team Peel	11 th	13 th	DNF	3	12 th	10	DNF	12 th	14 th	12 th	13
18	Clayton	SWIFT	USA	SL GP	2	1	4	11 th	11 th	2	DSQ	14 th	1	2	12
19	Armand	BRICE	FRA	ROCA	1	11 th	12 th	DNF	14 th	6	11 th	3	13 th	13 th	10
20	Miko	LAUTELA	FIN	ROCA	13 th	12 th	13 th	12 th	13 th	4	1	13 th	12 th	1	6

Figure 1: Drivers championship final standings.

Rk	Team	University	SPA	BEL	USA	JAP	CAN	HUN	MON	ITA	FRA	AUS	TOTAL
1	Kefford Racing	Leeds	DNF	22	20	30	20	DNF	33	8	33	36	202
2	BURP	Leeds	10	10	29	16	DNF	DNF	26	10	16	16	133
3	Lomas Racing	Leeds	20	20	14 th	14 th	22	20	DNF	20	DNF	DNF	102
4	Shiva	Dublin City	10	8	11	1	2	8	5	29	14	4	92
5	HamiltonianCRCT	U. Mass. Amherst	11	7	16	2	4	13	6	8	14	DNF	81
6	Ocon a Matata	Leeds	13	15 th	1	14	18	DNF	12	15 th	16 th	8	66
7	Borregos Racing	Leeds	16	2	11 th	13	13	DNF	DNF	4	2	13	63
8	SL GP	Leeds	2	14	6	4	3	5	DSQ	1	4	5	44
9	Team Peel	Leeds	11 th	13 th	15 th	3	1	26	DNF	12 th	14 th	12 th	30
10	ROCA	Manchester	1	11 th	12 th	12 th	13 th	10	1	3	12 th	1	16

Figure 2: Team championship final standings.