#### 1 How to read this document

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 (engine investment, chassis investment, driver 1 skill, driver 2 skill) and computes the performance level of each driver on each circuit, taking into account circuit-specific bonuses. From this performance level, it computes the ranking on each circuit, applies the same random DNF filter to the ranking as the code used for the races and attributes points to the surviving drivers in the order of their performance level. The point attribution and the races are the same as in the championship.

For Section 2, the code is run with a loop around both of these modules to average results over a large number of seasons. For Section 3, the code is run in the same way except that the driver signing module is deactivated and the lineup is set to the official one for each simulated season.

Typically,  $10^7$  seasons are ran twice for each Section below. The results are then compared and agreed to the second decimal place. They are rounded to the closest integer (we do not need more accuracy!).

## 2 Financial phase

#### 2.1 Drivers

- Allan Johnson (GBR) 5.0
- Philipp Krafft (GER) 4.8
- Cyprien Monnereau (FRA) 4.6
- Joris Gootjes (NED) 4.3
- Alfredo Alcarria (SPA) 4.0
- Michel Fabron (FRA) 3.6
- David Wilkinson (GBR) 3.2
- Udo Krallinger (GER) 2.8
- Pavel Ondra (CZE) 2.5

- Mark Winkelmann (GER) 2.5
- Luigi Disanti (ITA) 2.2
- Ricardo Raul (BRA) 1.8
- Alexander Koltsov (RUS) 1.4
- Felix Wollen (GER) 1.0
- Carlos Arizaga (ARG) 0.7
- Simao Faria (POR) 0.4
- Clayton Swift (USA) 0.2
- Aaron Kilpatrick (IRL) 0.0

#### 2.2 Teams

Pos.	Team	Name	Affiliation	Marketing	Chassis	Engine	Points
1	BURP	Cédric Beaume	Leeds	2.6	7.4	0.0	113
2	Fisher Racing	Robert Fisher	Southampton	2.5	0.0	7.5	103
3	HV22	James Wroe	Leeds	2.3	6.0	1.7	100
4	forkBOMB	Ati Sharma	Southampton	3.2	0.6	6.2	98
5	Flenberg	Ryan Fienberg	Leeds	2.6	3.7	3.7	96
6	BlueFlag Racing	Saurav Mohapatra	Southampton	2.6	2.4	5.0	95
7	Gotta Go Fast	Connor Kent	Leeds	3.0	3.0	4.0	94
8	Jose Elmez	Joseph Elmes	Leeds	1.6	0.0	8.4	89
9	Senna'matic	Alex Hughes	Leeds	5.0	2.0	3.0	41

Table 1: Expected results for each team given their marketing, chassis and engine investments.

## 3 Pre-season

## 3.1 Lineups

- BlueFlag Racing: Carlos Arizaga (0.7)–Clayton Swift (0.2)
- BURP: Alfredo Alcarria (4.0)–David Wilkinson (3.2)
- Fisher Racing: Michel Fabron (3.6)–Pavel Ondra (2.5)
- forkBOMB: Mark Winkelmann (2.5)–Ricardo Raul (1.8)
- Flenberg: Joris Gootjes (4.3)–Alexander Koltsov (1.4)
- Gotta Go Fast: Udo Krallinger (2.8)–Luigi Disanti (2.2)
- HV22: Allan Johnson (5.0)–Felix Wollen (1.0)
- Jose Elmez: Simao Faria (0.4)–Aaron Kilpatrick (0.0)
- Senna'matic: Philipp Krafft (4.8)–Cyprien Monnereau (4.6)

#### 3.2 Expected results

Pos	Driver	Team	Points
1	Allan JOHNSON	HV22	148
2	Joris GOOTJES	F1enberg	123
3	Alfredo ALCARRIA	BURP	103
4	Michel FABRON	Fisher Racing	96
5	David WILKINSON	BURP	68
6	Pavel ONDRA	Fisher Racing	64
7	Philipp KRAFFT	Senna'matic	42
8	Udo KRALLINGER	Gotta Go Fast	39
9	Cyprien MONNEREAU	Senna'matic	30
10	Mark WINKELMANN	forkBOMB	26
11	Simao FARIA	Jose Elmez	24
12	Aaron KILPATRICK	Jose Elmez	16
13	Felix WOLLEN	HV22	15
14	Luigi DISANTI	Gotta Go Fast	15
15	Alexander KOLTSOV	F1enberg	9
16	Ricardo RAUL	forkBOMB	7
17	Carlos ARIZAGA	BlueFlag Racing	2
18	Clayton SWIFT	BlueFlag Racing	0

Table 2: Expected driver results.

Pos	Team	Affiliation	Points		
1	BURP	Leeds	171		
2	HV22	Leeds	163		
3	Fisher Racing	Southampton	160		
4	Flenberg	Leeds	132		
5	Senna'matic	Leeds	72		
6	Gotta Go Fast	Leeds	54		
7	Jose Elmez	Leeds	40		
8	forkBOMB	Southampton	33		
9	BlueFlag Racing	Southampton	2		

Season 1

Table 3: Expected team results.

# 4 Results

Rk Firstname	LASTNAME	NAT Team	1	2	3	4	5	6	7	8	9	10	TOTAL
1 Allan	JOHNSON	GBR HV22	20	20	20	20	4	20	6	13	4	20	147
2 Joris	GOOTJES	NED F1enberg	13	10	13	8	6	8	20	10	20	13	121
3 Alfredo	ALCARRIA	SPA BURP	10	13	16	13	15 <sup>th</sup>	16	12 <sup>th</sup>	20	16	16	120
4 David	WILKINSON	GBR BURP	8	8	10	6	16 <sup>th</sup>	13	17 <sup>th</sup>	16	13	10	84
5 Michel	FABRON	FRA Fisher Racing	6	16	DNF	16	20	3	16	2	DNF	DNF	79
6 Pavel	ONDRA	CZE Fisher Racing	3	DNF	3	10	13	11 <sup>th</sup>	13	11 <sup>th</sup>	10	6	58
7 Mark	WINKELMANN	GER forkBOMB	16	3	4	$11^{th}$	8	12 <sup>th</sup>	10	12 <sup>th</sup>	8	1	50
8 Udo	KRALLINGER	GER Gotta Go Fast	4	6	DNF	4	2	6	4	6	DNF	8	40
9 Luigi	DISANTI	ITA Gotta Go Fast	1	2	6	DNF	3	1	3	3	6	4	29
10 Felix	WOLLEN	GER HV22	DNF	4	DNF	3	14 <sup>th</sup>	10	16 <sup>th</sup>	4	DNF	2	23
11 Simao	FARIA	POR Jose Elmez	DNF	12 <sup>th</sup>	12 <sup>th</sup>	2	16	13 <sup>th</sup>	2	DNF	$13^{th}$	DNF	20
12 Ricardo	RAUL	BRA forkBOMB	11 <sup>th</sup>	1	2	DNF	DNF	14 <sup>th</sup>	8	15 <sup>th</sup>	2	3	16
13 Aaron	KILPATRICK	IRL Jose Elmez	15 <sup>th</sup>	13 <sup>th</sup>	DNF	1	10	15 <sup>th</sup>	1	17 <sup>th</sup>	14 <sup>th</sup>	11 <sup>th</sup>	12
14 Philipp	KRAFFT	GER Senna'matic	2	15 <sup>th</sup>	$11^{th}$	14 <sup>th</sup>	13 <sup>th</sup>	16 <sup>th</sup>	18 <sup>th</sup>	8	15 <sup>th</sup>	DNF	10
15 Cyprien	MONNEREAU	FRA Senna'matic	DNF	DNF	8	15 <sup>th</sup>	17 <sup>th</sup>	17 <sup>th</sup>	11 <sup>th</sup>	14 <sup>th</sup>	11 <sup>th</sup>	$13^{th}$	8
16 Alexander	KOLTSOV	RUS F1enberg	14 <sup>th</sup>	DNF	DNF	12 <sup>th</sup>	11 <sup>th</sup>	4	13 <sup>th</sup>	1	3	DNF	8
17 Carlos	ARIZAGA	ARG BlueFlag Racing	13 <sup>th</sup>	11 <sup>th</sup>	1	DNF	1	2	15 <sup>th</sup>	13 <sup>th</sup>	1	14 <sup>th</sup>	5
18 Clayton	SWIFT	USA BlueFlag Racing	12 <sup>th</sup>	14 <sup>th</sup>	13 <sup>th</sup>	13 <sup>th</sup>	12 <sup>th</sup>	DNF	14 <sup>th</sup>	16 <sup>th</sup>	12 <sup>th</sup>	12 <sup>th</sup>	0

Figure 1: Drivers championship final standings.

Rk Team	University	1	2	3	4	5	6	7	8	9	10	TOTAL
1 BURP	Leeds	18	21	26	19	15 <sup>th</sup>	29	12 <sup>th</sup>	36	29	26	204
2 HV22	Leeds	20	24	20	23	4	30	6	17	4	22	170
3 Fisher Racing	Southampton	9	16	3	26	33	3	29	2	10	6	137
4 F1enberg	Leeds	13	10	13	8	6	12	20	11	23	13	129
5 Gotta Go Fast	Leeds	5	8	6	4	5	7	7	9	6	12	69
6 forkBOMB	Southampton	16	4	6	11 <sup>th</sup>	8	12 <sup>th</sup>	18	12 <sup>th</sup>	10	4	66
7 Jose Elmez	Leeds	15 <sup>th</sup>	12 <sup>th</sup>	12 <sup>th</sup>	3	26	13 <sup>th</sup>	3	17 <sup>th</sup>	13 <sup>th</sup>	11 <sup>th</sup>	32
8 Senna'matic	Leeds	2	15 <sup>th</sup>	8	14 <sup>th</sup>	$13^{th}$	$16^{th}$	11 <sup>th</sup>	8	11 <sup>th</sup>	$13^{th}$	18
9 BlueFlag Racing	Southampton	12 <sup>th</sup>	11 <sup>th</sup>	1	13 <sup>th</sup>	1	2	14 <sup>th</sup>	13 <sup>th</sup>	1	12 <sup>th</sup>	5

Figure 2: Team championship final standings.