

Team KPH Construction Racing Pit Display

Conor Casey, Emmet Glynn Johnston and Asher Grant

KPH
CONSTRUCTION

HOLBEIN
Carpentry & Joinery Ltd.

MHL

Marketing and ROI

Traditional Mainstream Media

Due to the nature of our target demographic, it was absolutely **vital to communicate** to that audience **through** the use of **traditional mainstream media**. We issued a **press release**, which is also available on our website, and **sent it to** an array of **media outlets**. We **appeared in three** local media outlets, including the **county radio station** and one of the **county newspapers**. In these appearances, we repeatedly **emphasised** and discussed the **commitment** of our **sponsors**. This provided a significant **return on investment** due to the **large audiences** of these outlets. It also prompted and **raised awareness** of **F1 in Schools** to the community, as most people were unfamiliar with this competition up until this point.



Figure 1: Team KPH Construction Racing in the press.

Virtual Events

We **organised** several **promotional virtual events** as part of our work for the F1 in Schools competition. These events resulted in a **positive experience for all** involved, based on the feedback we received after these events. We **believe** that these **events will instil** a **positive experience** with our **sponsors**, and as a result, is a great **return on investment** for them.

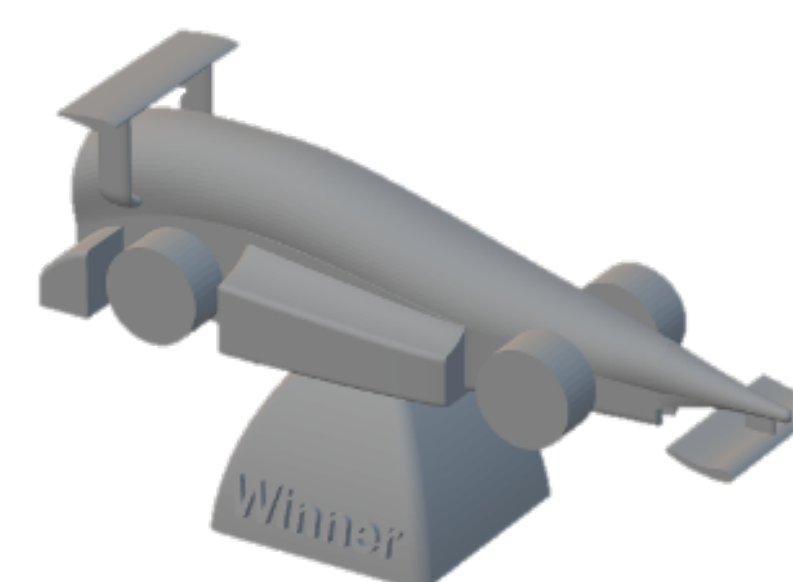
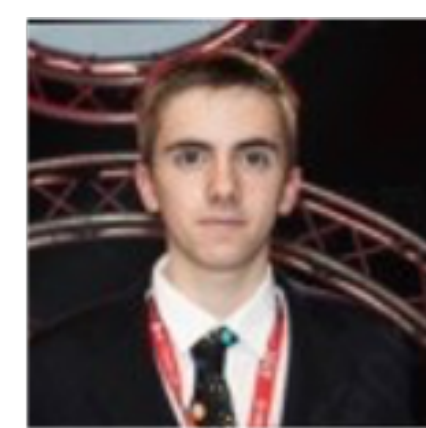


Figure 2: Prize for one of our virtual events.

Team Structure

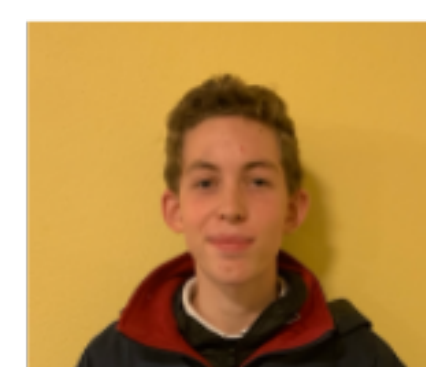
Members



Conor Casey is the **Team Manager**. In this role, he took **responsibility** for the **management of the team**, defined team goals, objectives and aims, ensuring the cars were adequately prepared for the competition and defined a timeline that the team followed to ensure everything was ready for competition day.



Emmet Glynn Johnston is the **Design and Manufacturing Engineer**. In this role, **oversees** the **creation**, design, styling, and performance of the **car**. Similarly, in his duties as manufacturing engineer, he will **advise** the wider team with respect to the **manufacturing requirements** of the car.



Asher Grant is the **Marketing Manager**. In his duties in this role, he will **create** any necessary **marketing materials** required for the promotion of the team and undertake any related public relations tasks which align with the goals of the team.

Collaboration

Conor co-operated with **Emmet** to conduct **computational fluid dynamics analysis** and provided support to **Asher** in defining an appropriate **target audience** for the team.

Emmet aided **Conor** in the allocation of an appropriate amount of **funds** for the necessary **engineering expenses** and assisted **Asher** with the creation of **promotional material** for the team.

Asher assisted **Conor** in the creation and the **design** of the **pit display**, and helped **Emmet** decide on an effective **colour scheme** for the car.

Engineering

Overview

After going through the process of **learning new software, skills and knowledge**, we were finally **capable** of **designing** the **car** we have ready to race today. We **utilised** some key aerodynamic features such as **vortex generators** and **end plates** on our wings, to **encourage streamlined airflow** and **designed** a practical **mounting system** for the nose cone that would allow it to be **changed between races**, should it incur damage.

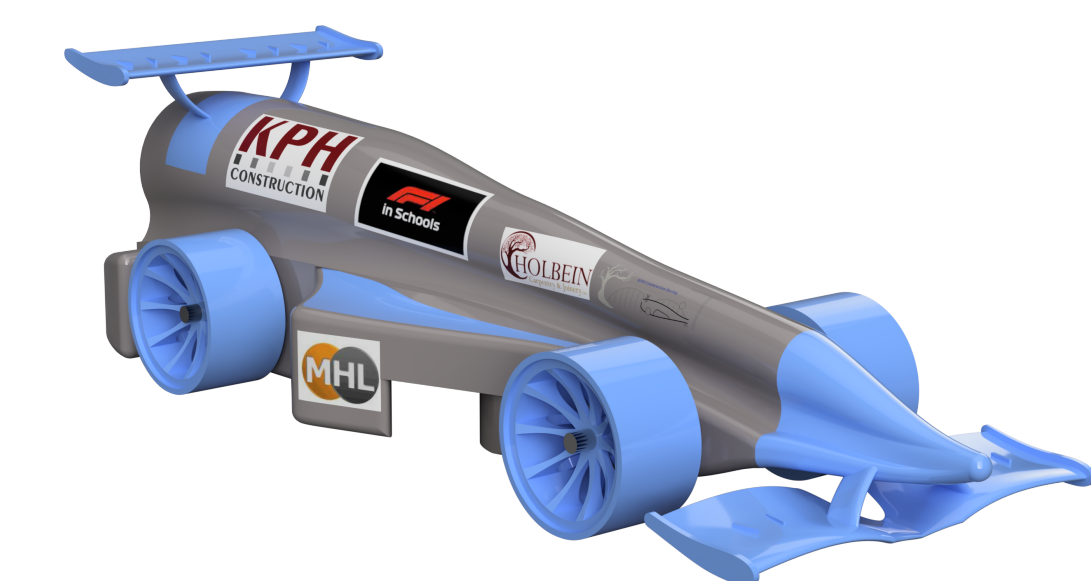


Figure 3: Team KPH Construction Racing F1 Car

Design Development

While we had a great **focus** on reducing **frontal area** by **keeping major components** such as the canister chamber, the front wheels and the wings to **minimum dimensions**, we implemented a **low ground clearance design** to induce the **ground effect**, which would help to **generate downforce** and keep our car firmly planted on the ground. We **explored countless concepts** before reaching our final car design in all aspects, from tether line guides and axles to the wing styles and the shape of the main body.

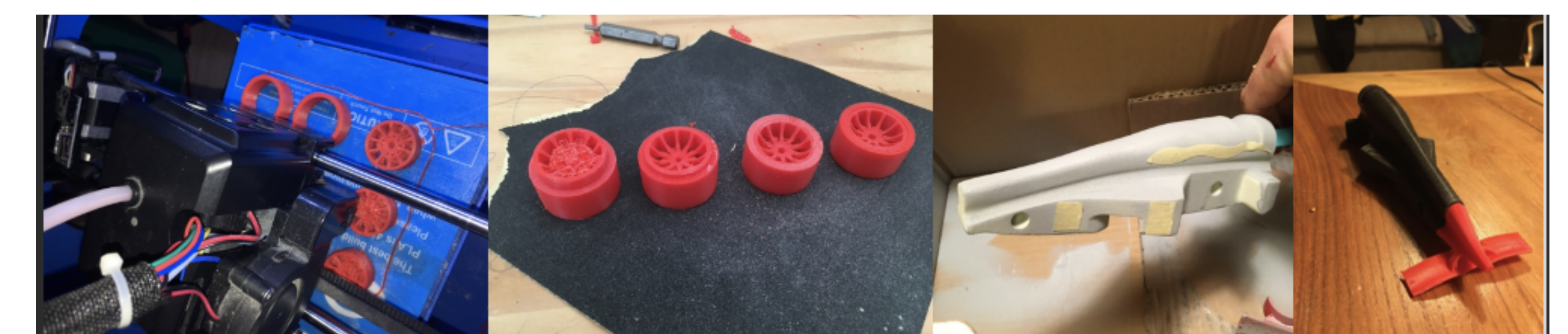


Figure 4: Assembly of the Team KPH Construction Racing F1 Car