

Progress Report

Lancers Racing Team

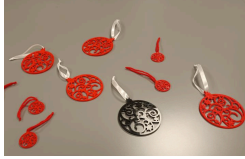
Recruitment:

The Lancers Racing Team of ACS Athens consist of 6 students currently enrolled in the ACS Middle School: Parmenion Markopoulos, Christos Markopoulos, Motiejus Vyskupaitis, Filippos Paidas, Azmi El Fakhouri and Paris Tzembelicos. In this Report you will find the Roles and Responsibilities of each Team Member along with the progress the team has made in the last months of work.

Roles & Responsibilities

Thymianos Aristotelis	Teacher and Mentor of the Lancers Racing Team. Guiding and supporting students.
Parmenion Markopoulos	Manufacturing Engineer and Technician: Collaborate on car crafting, manage materials and production feasibility, ensure precision and regulation compliance. Project Manager: Coordinates tasks, oversees progress and facilitates communication with stakeholders.
Christos Markopoulos	Marketing Manager: Promote the team, create logo and secure sponsorships. Tasks include social media management and financial relations.
Motiejus Vyskupaitis	Data Analysis: Test car, identify improvements and analyze data, including aerodynamics. Manufacturing Engineer: Collaborate on car crafting, manage materials and production feasibility.
Filippos Paidas	Marketing Member: Develop and maintain brand identity. Seek sponsors and manage funding opportunities. Social Media and Promotion Manager: Manage accounts and create promotional content.
Azmi El Fakhouri	Manufacturing, Simulations & Data Analysis: Optimize industrial processes using advanced technologies. Includes manufacturing, simulations, and data analysis for efficiency and decision-making.
Paris Tzembelicos	Web Development Manager: Design and maintain the team's website for optimal functionality. Regularly update the site with the latest achievements and project developments.

Fundraising Plan: The organization of a bazaar provides a wide range of ways to raise money to help the STEM program F1 in Schools. Funds were raised by participating in the Christmas bazaar of ACS Athens by selling 3D printed ornaments and Christmas decorations. Our teams with collaboration with other STEM clubs from our school worked together to ensure the quality and quantity of our stock for the bazaar. We received many donations from parents and attendees and we collected a significant amount of funds, enough to help us get some important materials like 3D filament and the bearings for our car.



Research and Develop:

Mechanical design entails the creation and development of physical components, systems, or products, utilizing principles of engineering, CAD (Computer-Aided Design) software, and material selection to ensure functionality, reliability, and manufacturability.

Manufacturing encompasses the processes and techniques used to transform raw materials into finished products, involving various stages such as machining, assembly, quality control, and logistics management. We have started 3D printing the components of our F1 car with our 3D printer in school.

Simulations refer to the use of computer models and mathematical algorithms to replicate real-world scenarios, providing insights into the behavior, performance, and interactions of systems or processes, often used for testing, optimization, and predictive analysis. We have started working with some CFD simulations like [Openfoam](#) to analyze the aerodynamic behavior of our car.

Data analysis is a process that helps us make sense of diverse information. It involves gathering and organizing data, using statistical methods, and creating visuals like charts. The goal is to find patterns and insights within the data, making it easier for decision-makers to understand and use.

Sponsors:

Our first sponsor was [Element Aerospace](#). They specialize in business aviation, they help with suggesting a solid aircraft to purchase or whether you require a valuation in order to sell. They guarantee to ensure maximum financial performance with reduced risk or exposure. They specialize in asset management, appraisal, aircraft selection, technical evaluation, aircraft deliveries, maintenance supervision, and repossession. They provided a domain for our website, the platform for the website is [GoDaddy](#) and the website is [Lancers Racing Team](#).

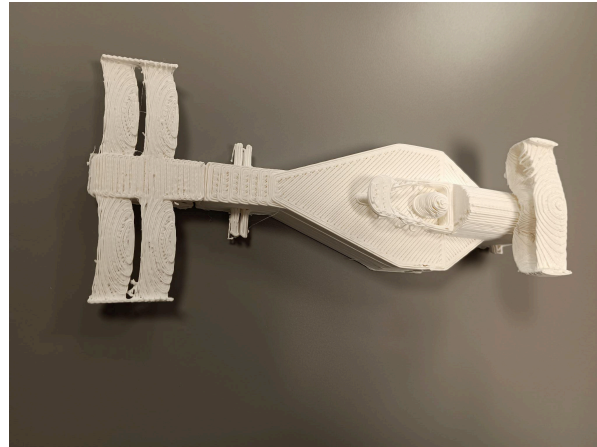


Marketing:

The team has worked on marketing strategies via social media such as Instagram. In our Instagram profile we have uploaded posts on our team updates like the **christmas bazaar sale** that happened in our school and more updates of the team. Part of the marketing team is working on the Lancers Racing website on

the platform GoDaddy. We try to update our blog frequently for people to stay up-to-date with our work and we try to publish our reports and work to everyone. Soon we will update the site with more sections.

Manufacturing encompasses the processes and techniques used to transform raw materials into finished products, involving various stages such as machining, assembly, quality control, and logistics management. The team currently 3D printed the first test print of the car design which includes the main body, rear and front wing with no wheels and axes.



3D Printed Test

Our Team also worked with the name and Logo and influenced by our sports team the selected name is “Lancers Racing Team” followed by the Logo which includes the colors of the school and some small F1 in school related details.



Logo of Lancers Racing Team

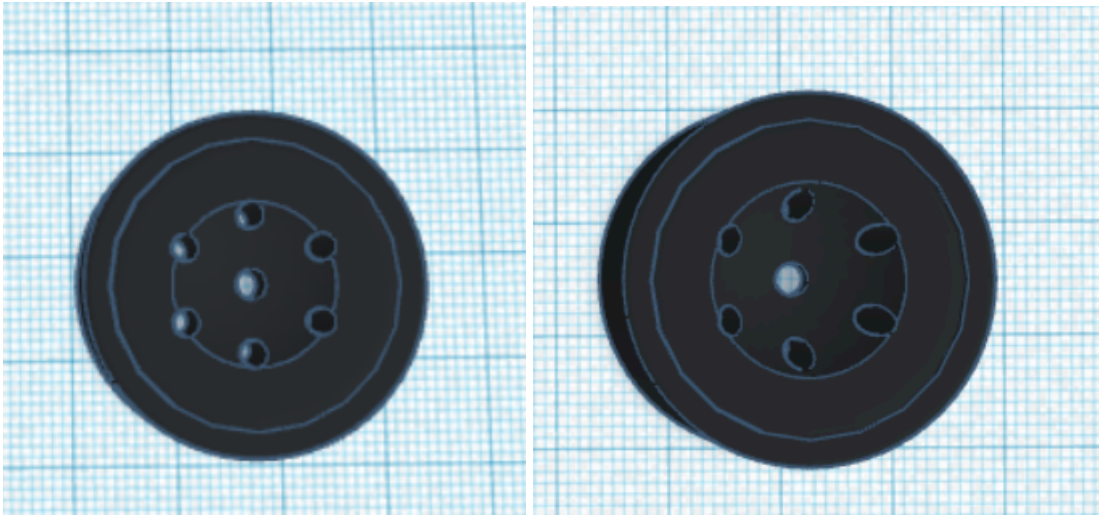
The site of the Team, our email address and our Social Media can be found below:

- E-mail: lancersracingteam@gmail.com
- Website: <https://lancersracing.com>
- Instagram: [Lancers Racing Team](#)

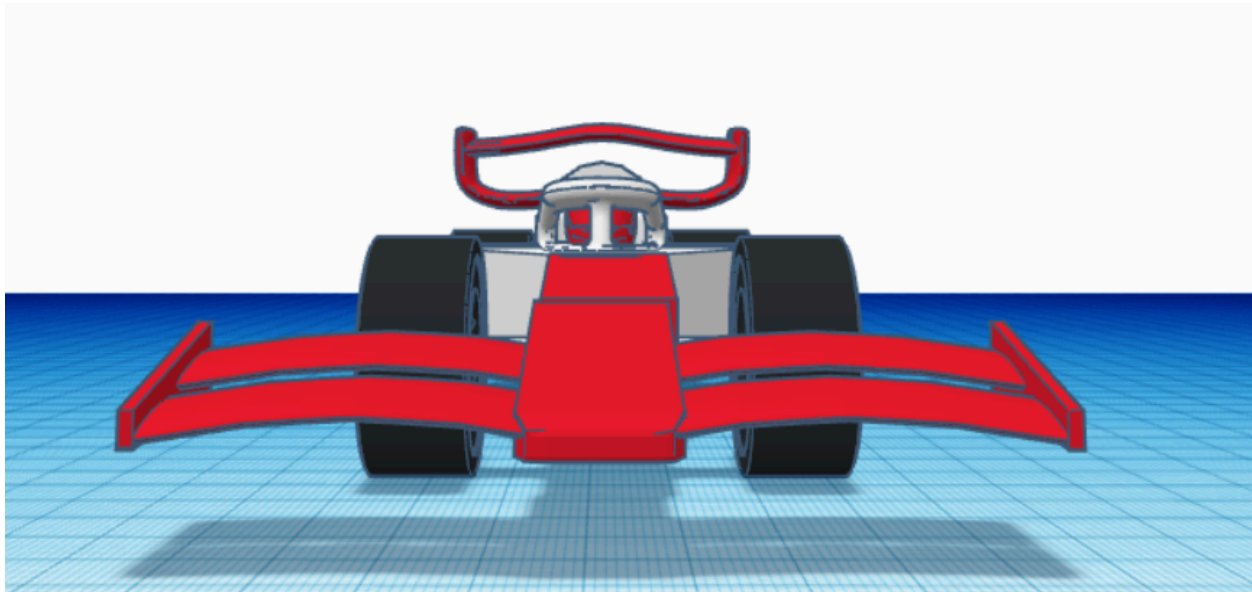
We have also communicated our work with our first Sponsors in “ACS Athens - The institute” and after working with them we published an article talking about the team and our mission, which can be found [HERE](#).

3D CAD Design

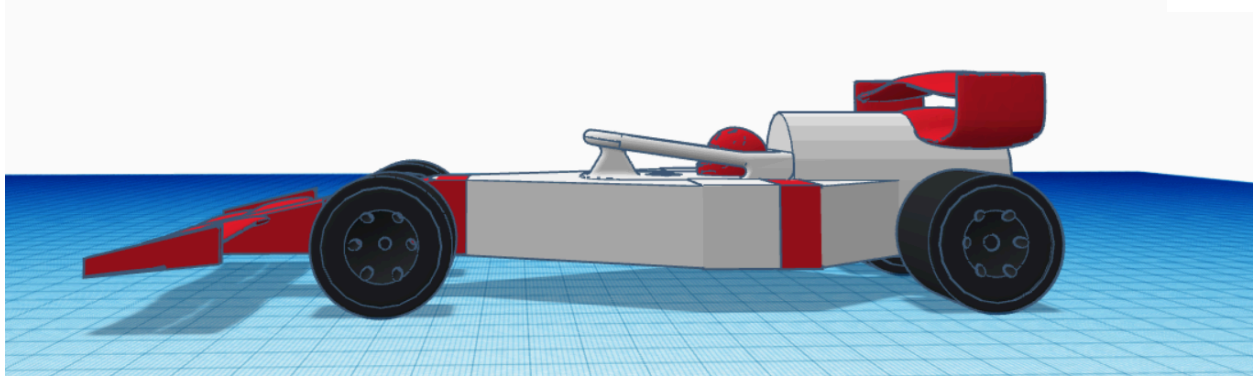
We have designed all components of the F1 car in [TinkerCAD](#) and we will 3D print all components with our Creality Ender Plus 5 3D printer. The design of the car is separated in different sections including the wheels, the front wing, the rear wing and the main body.



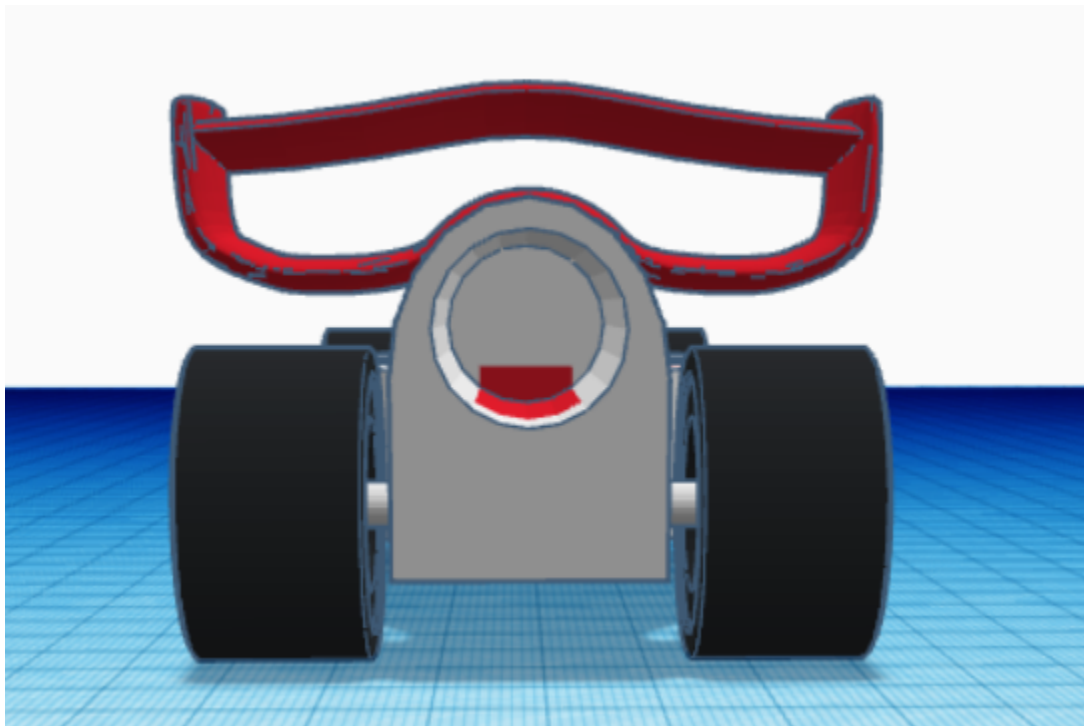
Rear wheel (left) & Front wheel (right)



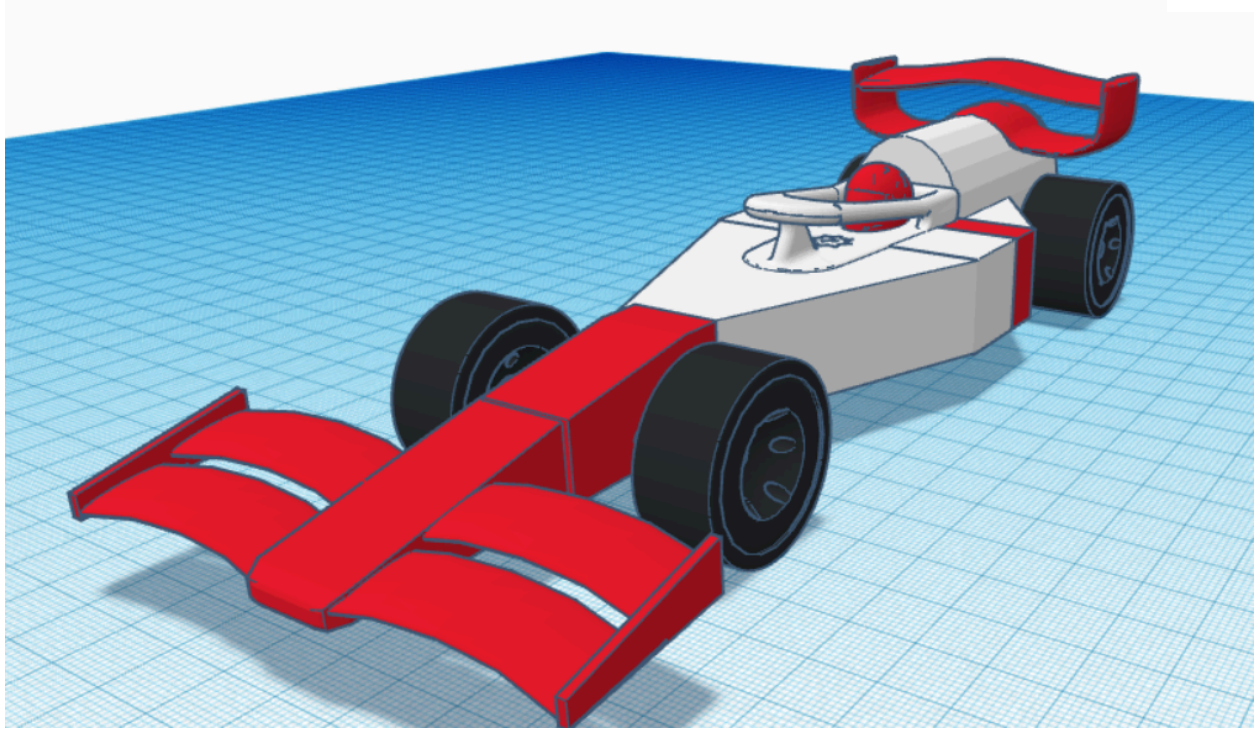
Completed F1 Car - Front view



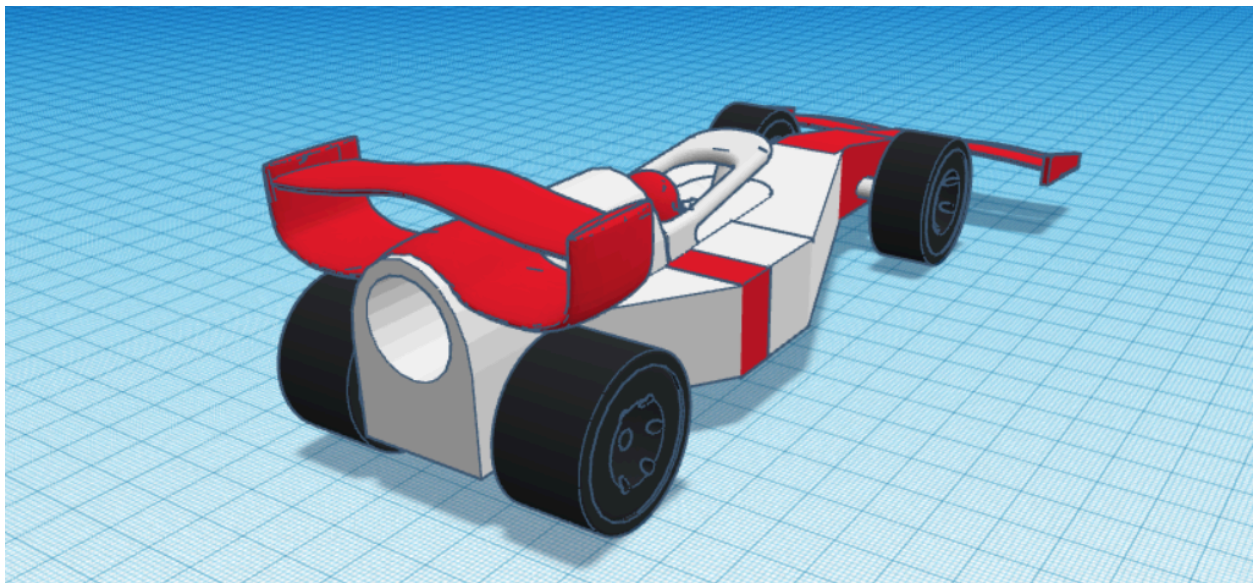
Completed F1 Car - Side view



Completed F1 Car - Back view



Completed F1 Car - Top Side view



Completed F1 Car - Top Side view