

Research at The Maharaja Sayajirao University (MSU)

Research Intern — Aircraft Design and Efficiency Project

At **The Maharaja Sayajirao University (MSU)**, I was introduced to the deeper engineering principles that govern how aircraft achieve stability, lift, and efficiency. Working with a team of researchers, I explored how design geometry, material selection, and weight distribution influence overall flight performance.

My role focused on developing **lightweight, energy-efficient aircraft models** capable of delivering maximum thrust output with minimal battery consumption. I was responsible for **aerodynamic and structural calculations, material selection, and final assembly**. We experimented with different composite materials and wing configurations to improve endurance while maintaining load-carrying capacity.

Through this project, I learned how creative engineering and data-driven testing come together to solve real-world problems. Seeing our prototypes achieve higher flight times and efficiency with each iteration was a defining experience—it taught me how innovation often lies in the smallest design optimizations that balance power, weight, and performance.

