

CU Boulder Racing Team - Formula SAE BUFFSRACING@COLORADO.EDU



## **OUR MISSION**

The CU Boulder Racing Team is an organization focused on various road racing competitions. Our goals are to build a race car to compete in the intercollegiate competition known as Formula SAE and to build cars for the ChampCar Endurance Series.



Our club welcomes everyone, with or without racing experience. The only thing we desire from members is the willingness to learn and enthusiasm for motorsports.



## **OUR DESIGN PROCESS**

1

#### **Preliminary Design**

The preliminary design process involves research, defining requirements, and ideation for the System Design Review (SDR). Team members document subsystems, addressing past issues, feedback, and improvements to meet technical goals.

Text

2.

#### **Final Design Review**

The design review phase involves creating the Preliminary Design Review (PDR) to refine the design, developing final parts in CAD, and formulating a manufacturing plan. This ensures all components are well-documented, accurately modeled, and ready for production.

3.

#### **Manufacturing**

We build our car in-house from the ground up, with team members machining precision components in CU Boulder's facilities. This hands-on approach allows them to directly experience the relationship between innovation and practicality.

**Testing** 

4\_

We aim to dedicate as much time to testing as to design. To build a robust and reliable vehicle, we conduct weekly testing trips throughout the year, focusing on refining the vehicle's performance and training our drivers. Our testing phase helps inform design changes for future years.



# **EVOLUTION OF THE FORMULA CAR**

CB1

CB1 is the first car built by the CU Boulder Racing Team's Formula SAE division. Originally conceived in 2017, the car was supposed to compete at Formula SAE California in Fontana, California in the summer of 2020 but was cancelled due to COVID-19. After the event cancellation, CB1 was reborn as CB2, a continuation of the original project, to combat with potential vehicle problems. CB2 competed at Formula SAE California in the summer of 2021.



CB3

CB3 is an evolution of our CB1/2 platform, with driver ergonomic and control interface improvements. CB3 competed at FSAE Michigan in June 2022, but unfortunately did not pass.



СВ4

CB4 is our most successful design cycle to date. This car is our first vehicle to ever pass technical inspection. It attended the 2023 Michigan FSAE IC event and placed 20th. This vehicle also hosted our first piece of carbon fiber crafted in-house.



CB5

CB5 competed in the 2024 Formula SAE IC Michigan competition. CB5 was our first ever vehicle with an aerodynamics package, and a differential. This ambitous design cycle has the most changes to date. Other key changes to this platform include moving away from the direct linkage front suspension showcased in CB4, as well as a thirty percent power increase as a result of a new and improved intake system. Other systems such as the cooling and fuel tank were refined and downsized.





## **LOOKING FORWARD - CB6**

Our team is gearing up to compete at the Formula SAE Michigan competition in May 2025, which includes dynamic tests such as Acceleration, Skid Pad, Autocross, Endurance, and Fuel Efficiency. With a focus on enhancing our powertrain and air flow systems, we aim to excel in these challenges.

#### **Chassis**

The chassis subsystem is dedicated to refining the car's structure, suspension, braking systems, and ergonomics.



# WE COMING

#### **Powertrain**

The powertrain team will develop the engine, transmission, drivetrain, cooling, fuel, and data acquisition systems, emphasizing air flow enhancements with a volumetric flow bench to validate the intake system.

#### **Aerodynamics**

Our aerodynamics team will concentrate on optimizing airflow and enhancing performance by integrating downforce-generating elements such as the car's body, and front, and rear wings.



#### CU-BOLLDER RACING TE AM

#### **WHY SUPPORT US?**

#### **ENGAGE**

We collaborate closely with our sponsors to develop tailored strategies that effectively showcase their support of our team to the local community, ensuring their contributions are prominently highlighted.



Sponsors will have the opportunity to recruit from our pool of experienced and driven students through recruiting events and resume book.



Your logo and branding will appear on all of our cars as we travel around the country competing. You will also get exposure through social media posts, team apparel, our website, and other promotional materials.

#### **SUPPORT**

All sponsorships and donations are 501(c)3 qualified and can be financial or in-kind.











# **SPONSOR US!**



Our team relies on sponsorship donations to build our car and attend competitions.

Our team prioritizes building long lasting relationships with sponsors.

To learn more, email us at buffsracing@colorado.edu.

Benefits	Tier 4 (\$10,000)	Tier 3 (\$5,000)	Tier 2 (\$2,000)	Tier 1 (\$500)
Logo on Car	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓
Logo on Website	<b>√</b>	<b>√</b>	<b>√</b>	✓
Sponsorship Announcement on Instagram Story	<b>√</b>	<b>√</b>	<b>√</b>	✓
Receive our Monthly Newsletter	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓
Sponsorship Announcement on Instagram Grid	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	
Social media tag in all posts	<b>✓</b>	<b>√</b>		
CU Formula Car at events	<b>√</b>	<b>✓</b>		
Invitation to Racing Team Events	<b>√</b>			
Exclusive BTS updates and photos	<b>√</b>			
Access to our resume database	✓			

#### PLATINUM TIER SPONSOR - \$20,000+

In addition to all of the benefits listed above, our Title Sponsor have access to additional opportunities and information. These include exclusive tours of our shop, involvement in our team documentary, opportunity to host events with the team, special livery design, and more.

Please note that not all sponsorships are confined to monetary donations! For example, we accept sponsorship in the form of discounted or donated car components. For further questions or clarification, please reach out to us at buffsracing@colorado.edu.

