CU AUTONOMOUS RACING

Sponsorship Packet 2025-2026

MESSAGE FROM LEADERSHIP

CU Autonomous Racing is proud to embark on an exciting new journey to design and build the University of Colorado Boulder's first fully autonomous electric go-kart. Our mission is to combine innovation, teamwork, and technical excellence to compete in the Autonomous Karting Series, an international competition showcasing the future of intelligent mobility.

Our team brings together students from mechanical, electrical, software, and business disciplines who share a passion for pushing boundaries. By building this kart from the ground up by integrating computer vision, embedded systems, and precision mechanical design. Gaining valuable, real-world experience that extends far beyond the classroom.

Every contribution from our sponsors directly fuels this vision. Your support provides the parts, sensors, software, and materials that make our progress possible, while also connecting your organization with some of the most driven and skilled engineering students at CU Boulder. Together, we can accelerate the next generation of autonomous vehicle innovation.

We're incredibly grateful for your time and interest in our mission. Thank you for considering a partnership with CU Autonomous Racing

We look forward to shaping the future with you.

— Hampton Langenbeck

CU Autonomous Racing Team Lead

CU AUTONOMOUS RACING

ABOUT US

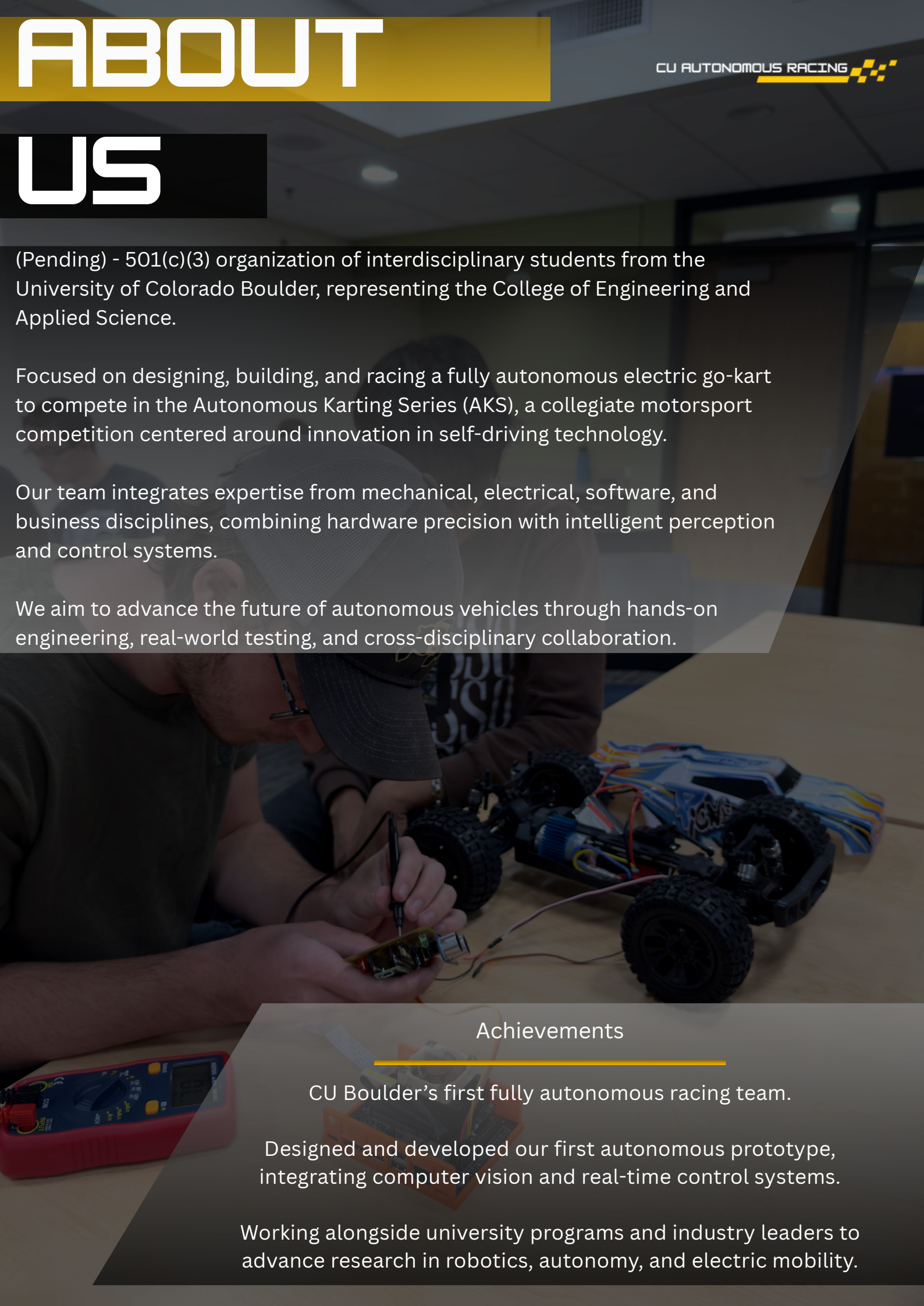
CU AUTONOMOUS RACING

(Pending) - 501(c)(3) organization of interdisciplinary students from the University of Colorado Boulder, representing the College of Engineering and Applied Science.

Focused on designing, building, and racing a fully autonomous electric go-kart to compete in the Autonomous Karting Series (AKS), a collegiate motorsport competition centered around innovation in self-driving technology.

Our team integrates expertise from mechanical, electrical, software, and business disciplines, combining hardware precision with intelligent perception and control systems.

We aim to advance the future of autonomous vehicles through hands-on engineering, real-world testing, and cross-disciplinary collaboration.



Achievements

CU Boulder’s first fully autonomous racing team.

Designed and developed our first autonomous prototype, integrating computer vision and real-time control systems.

Working alongside university programs and industry leaders to advance research in robotics, autonomy, and electric mobility.

Mission Statement

To design, build, and race a fully autonomous electric go-kart that combines mechanical precision, intelligent control, and real-world innovation.
Our mission is to empower CU Boulder students to develop hands-on experience in robotics, computer vision, and vehicle dynamics—equipping the next generation of engineers, innovators, and leaders to drive the future of autonomous mobility.

Vision Statement

To become a nationally recognized leader in collegiate autonomous motorsport—where innovation meets precision. We strive to advance the future of intelligent transportation by merging engineering excellence, cutting-edge robotics, and teamwork. Our vision is to inspire the next generation of engineers, innovators, and entrepreneurs to shape a smarter, safer, and more autonomous world.

CU Boulder College of Engineering

The College of Engineering and Applied Science, established in 1893, enrolls more than 7,000 students across a range of nationally ranked programs. The college is distinguished by its strong emphasis on research, entrepreneurship, and industry partnerships that prepare students to become leaders in engineering and technology.

Innovations and Impacts

- Ranked among the Top 15 Public Engineering Colleges in the U.S. (U.S. News & World Report)
- Industry partnerships with organizations such as NASA, Lockheed Martin, Ball Aerospace, Intel, and Google. Provide hands-on opportunities for students and faculty to collaborate.
- Recognized by the National Academy of Inventors as a Top 20 U.S. university for patents granted

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Design

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Perception System

Our autonomous kart uses a forward-facing camera paired with LiDAR sensors to detect lanes, cones, and obstacles in real time. Using computer vision and machine learning, the perception system identifies track boundaries and feeds data into the control system for navigation. This setup mirrors full-scale autonomous vehicle technology on a smaller, experimental platform.

Control System

The control system translates perception data into precise steering, throttle, and braking commands. A PID-based controller ensures smooth, stable motion, while advanced algorithms handle high-speed cornering and obstacle avoidance. Every decision happens in milliseconds—allowing the kart to respond dynamically to track conditions.

Electrical System

Our kart runs on a 48V powertrain managed by a custom electrical distribution board. The system integrates the battery management system (BMS), motor controller, and safety interlocks, ensuring reliable and efficient energy delivery. All components are designed and wired in-house by CU Autonomous Racing's electrical team.

Mechanical Design

The chassis is a lightweight, precision-engineered frame designed for balance and safety. Every component—from the suspension geometry to the motor mount—is optimized in CAD and validated through simulation before fabrication. The result is a stable, high-performance platform that brings together speed, agility, and structural integrity.

Software Architecture

Our custom software stack is built using ROS (Robot Operating System) to coordinate communication between perception, control, and safety modules. This modular structure allows rapid iteration and testing, with built-in logging for real-world data collection and algorithm improvement after each run.

Sponsorships Tiers

Diamond Sponsor - $10,000+

- Premier logo placement on kart, team apparel, and all media
- Large logo on website and promotional materials
- Invitations to all testing sessions, showcases, and special events
- Priority collaboration on research, hardware testing, or software integration
- Opportunity to speak with the team at demos and events
- Featured partner spotlight on our social channels

Gold Sponsor - $5,000 – $9,999

- Logo on kart, apparel, and promotional materials
- Logo on website and social media
- Invitations to select testing sessions and engineering events
- Option to collaborate on hardware, sensors, or component testing

Silver Sponsor - $2,500 – $4,999

- Logo on website and promotional materials
- Social media recognition
- Invitation to one testing or showcase event each semester

Bronze Sponsor - $1,000 – $2,499

- Logo on promotional materials
- Recognition on our website
- Photo updates of team progress and builds

Contributor - Up to $999

- Name or company listed on our website
- A thank-you shout-out on our social media

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What We Provide

01

RECRUITMENT

Gain direct access to some of CU Boulder's brightest engineering talent. Sponsors will receive curated resumes from our members—students skilled in mechanical design, electrical systems, computer vision, and software development. Our alumni and teammates are future innovators ready to make an impact in industries such as autonomous vehicles, AI, and robotics.

02

EXPOSURE

Your brand will receive widespread visibility through logo placement on our autonomous kart, team apparel, website, and promotional materials. We actively engage our audience across social media platforms, engineering expos, and competition coverage—ensuring your partnership gains meaningful exposure within the CU Boulder community and beyond.

03

COLLABORATION

We invite sponsors to collaborate on meaningful engineering projects and product testing. Whether it's providing components, software tools, or technical expertise, your partnership helps us integrate real-world solutions into our design while creating opportunities for your company to evaluate emerging technologies and talent firsthand.

04

EVENTS & ENGAGEMENT

Sponsors are invited to exclusive events including testing sessions, design reviews, and showcase days. These events provide hands-on access to our autonomous racing platform, opportunities to meet our team, and a chance to see your support in action as we prepare for national competition.

05

SUPPORT & IMPACT

All contributions are 501(c)(3) tax-deductible **(pending)** and can be either financial or in-kind. Your support helps us acquire the essential hardware, sensors, and materials needed to push innovation forward, and builds a direct bridge between industry and the next generation of autonomous vehicle engineers.

Contact Information

Thank you!

We appreciate all your support and time

cuautonomousracing@colorado.edu

Engineering Center,
University of Colorado Boulder

+1 (303) 555 - 0123

Thank you for supporting our mission. Your partnership helps us innovate, grow, and push the future of autonomous racing forward. Together, we're shaping the next generation of engineering at CU Boulder.

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