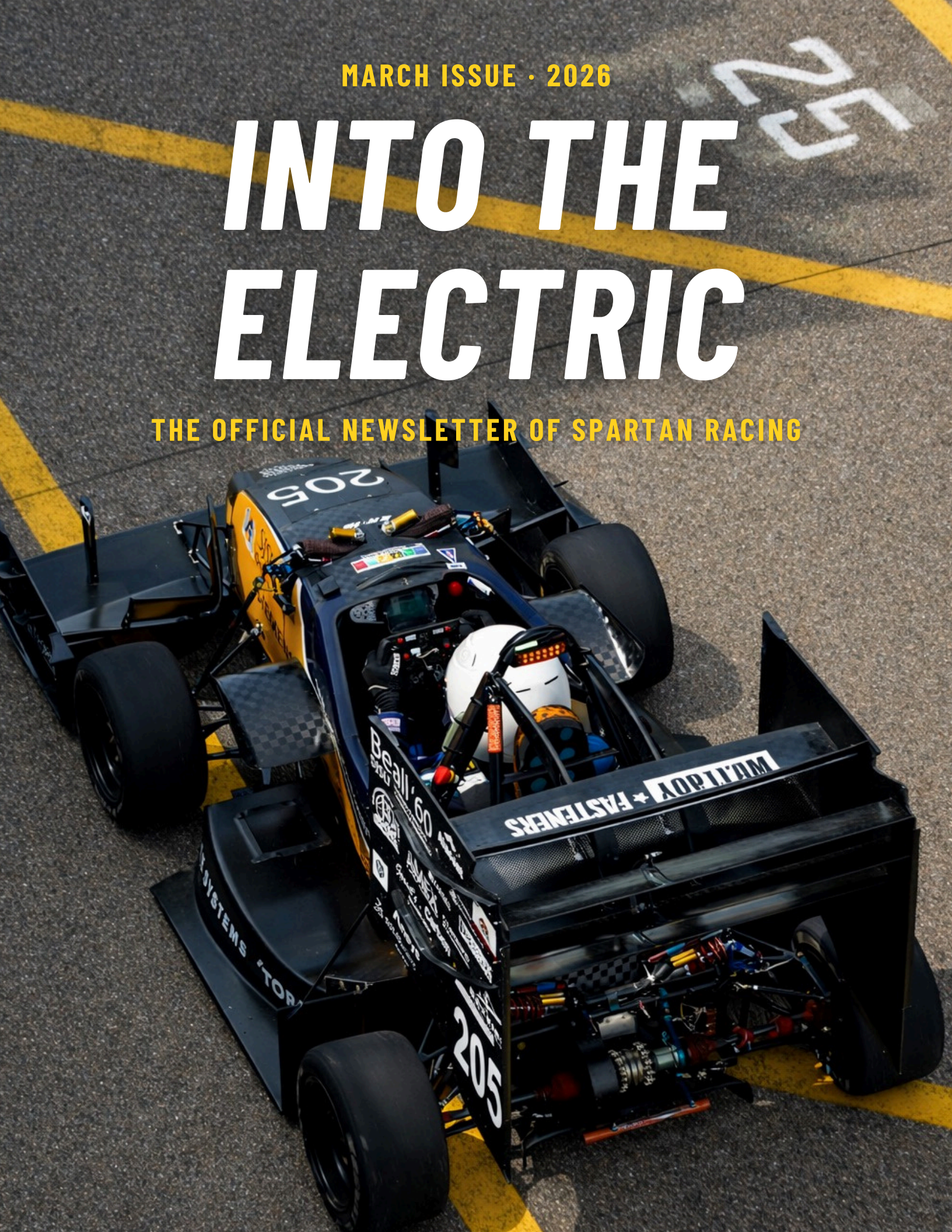
MARCH ISSUE · 2026

INTO THE ELECTRIC

THE OFFICIAL NEWSLETTER OF SPARTAN RACING



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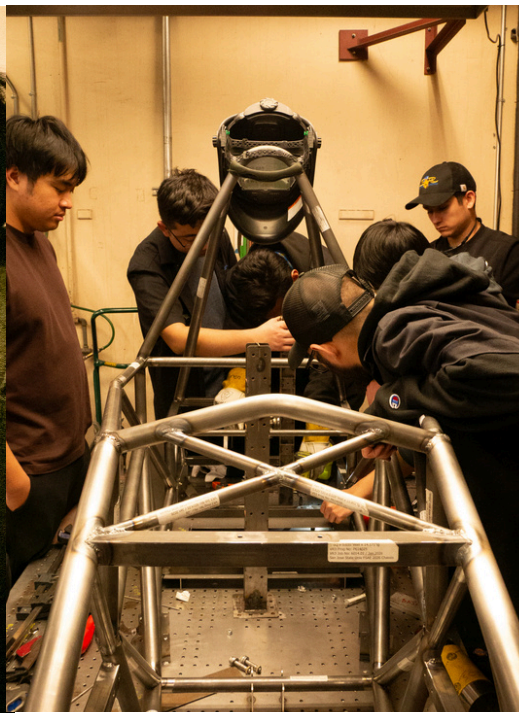
CHARGING UP



YOUR SUPPORT, OUR PROGRESS

Thanks to your support, we are now actively manufacturing the car and preparing for our official rollout next month. This is an exciting milestone, as a year's worth of design, development, and dedication is coming to life in the form of a fully built vehicle. A major focus of this progress has been our battery powertrain system where hundreds of cells have been carefully tested, assembled into modules, and integrated into a robust, competition-ready package. Beyond performance, this work represents long nights in the shop, hands-on learning, and a shared commitment to building something reliable and powerful from the ground up. As we continue charging forward, every validated battery module and completed system brings us one step closer to a stronger, more competitive season.

AERO REDEFINED

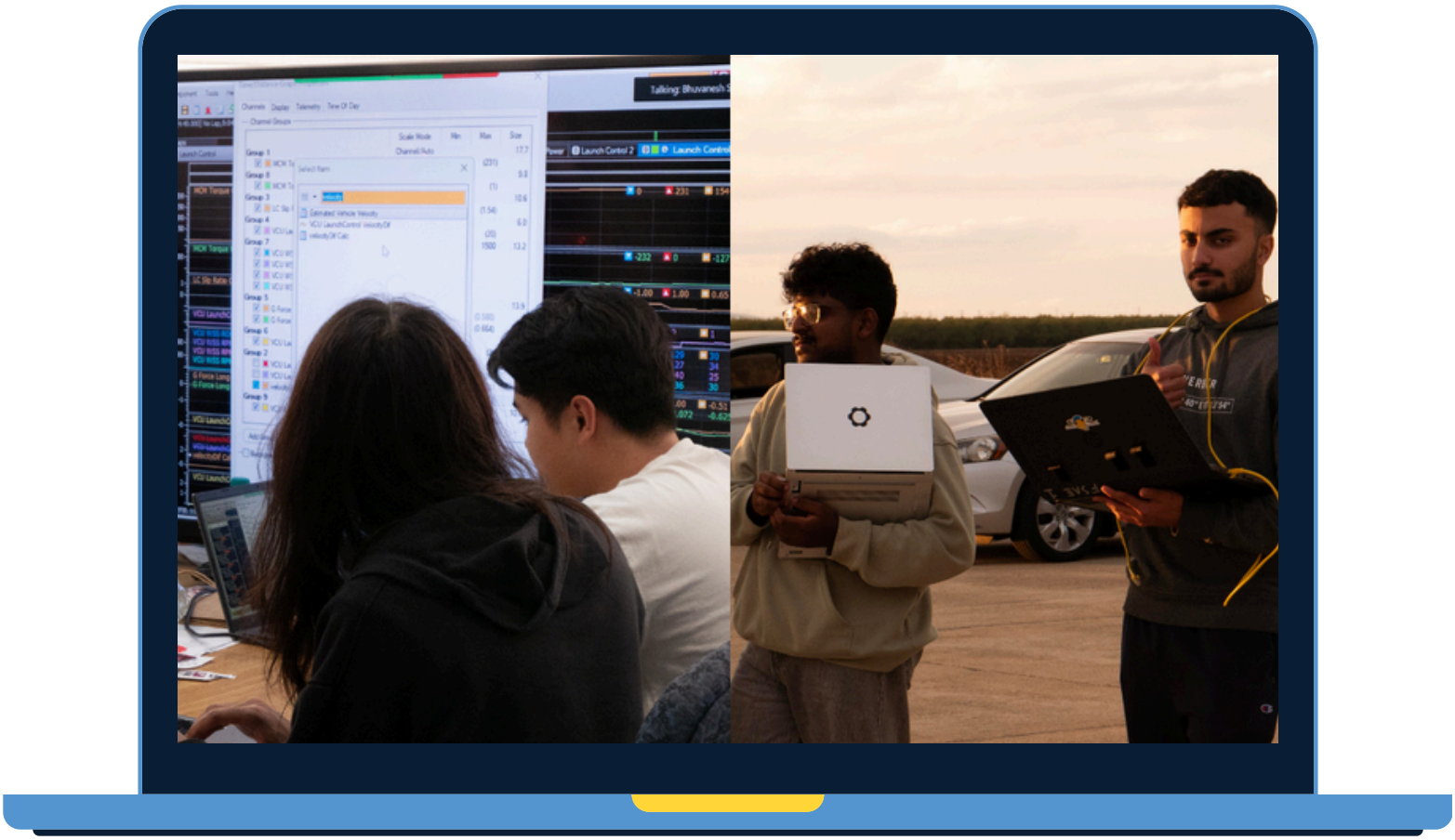
TURBULENCE TACKLED. PERFORMANCE DELIVERED

This year, the Aerodynamics team redesigned the rear wing's DRS trailing flaps to recover performance lost to turbulent airflow. The car's roll hoop and mounted TSAL light sit directly in front of the rear wing, creating "dirty air" that disrupts airflow and reduces the amount of downforce the wing can produce. Using computational fluid dynamics (CFD) analysis, the team identified flow separation along the inner portion of the trailing flaps, directly in line with the wake from the roll hoop. To address this, the new flaps were designed with a sweeping angle of attack to better guide airflow and maintain flow attachment across the surface. This refinement allows the rear wing to generate more consistent and effective downforce, improving overall grip and stability even in less-than-ideal airflow conditions.

POWERING UP

BATTERY BUILT FOR BATTLE

This year, our Tractive Battery Pack (TBP) team made major strides in reliability and performance. Nearly all 500 high-voltage cells were individually tested, with only three falling outside our strict voltage requirements, ensuring a highly consistent energy source for the car. All 10 battery modules have been spot-welded, assembled, and fully validated at their nominal 49.3V, and the Tractive Battery Container, the structural housing for the system, has been fully welded and water-tested for durability and safety. To further improve endurance performance, the team is currently manufacturing new heat spreaders and a finned endurance heatsink designed to keep the battery pack cool and efficient during extended on-track sessions.



SOFTWARE ON FLEEK

HOW POWER EFFICIENCY IMPACTS DRIVING

This season, our software team developed a new efficiency algorithm to secure critical points in the endurance event, an area that previously limited our overall results. In both 2024 and 2025, SJSU was the only top-10 team at Michigan International Speedway without an efficiency score, despite strong performances elsewhere. Because efficiency is worth nearly as many points as acceleration, earning this score could be the difference between a podium finish and first place overall. The algorithm acts as an intelligent energy “budgeter,” dynamically adjusting power on each straightaway to keep the car within competition energy limits while maintaining competitive performance.

WHAT'S NEXT?

Next is the **SR-17** rollout and first drive. The running car will be showcased to sponsors, alumni, and the public for the first time ever. This means your support is needed more than ever to finish the build and prepare for this sensational event. We plan to get first in Michigan this year and the rollout is just the first step to success.

DETAILS OTW

STAY TUNED


BERGMAN PROTOTYPING
CURVILINEAR Components
ASSOCIATED STUDENTS SAN JOSÉ STATE UNIVERSITY
SJSU CHARLES W. DAVIDSON COLLEGE OF ENGINEERING
GONSEL'S MACHINE SHOP
Calspan
SOLIDWORKS
CISCO
cadence
VALENCE PRECISION
Chick-fil-A
AIRTECH ADVANCED MATERIALS GROUP
Ansys
STAR ONE CREDIT UNION
SPARTAN RACING
Chem Trend
Levy
EVONIK Leading Beyond Chemistry
SAN FRANCISCO REGION SCCA Sports Car Club of America
'TORAY'
SIEMENS
PHOENIX CONTACT
mountz
Hoosier
Altium
MILSPEC INDUSTRIES
rapidHARNESS
OnlineMetals.com
SABALCORE
Beall '60
SMC
MILITARY
FASTENERS
AMEX PLATING INCORPORATED
MARIN DESIGNWORKS
VI-GRADE
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