

Constitution of Society of Automotive Engineers at the University of California San Diego

This collegiate Branch has been chartered by the Society of Automotive Engineers and is subject to the Constitution, Bylaws, Rules, and Regulations of the present Society.

ARTICLE I. NAME OF STUDENT ORGANIZATION*

The organization shall be called the Society of Automotive Engineers (SAE®) collegiate branch at UC San Diego. It may also use the name Triton Racing, as that is the team's name in the Formula SAE® Electric division of SAE International series competitions. Any future alterations to this arrangement may be considered if or when additional series are added (e.g. Baja SAE, AutoDrive Challenge II™, etc).

ARTICLE II. STATEMENT OF PURPOSE*S

The goal of the organization is to design, build, and validate a Formula series racecar. The Society of Automotive Engineers seeks to empower future engineers through hands-on learning, teamwork, and professional development. We foster creativity and ingenuity, encouraging innovative solutions to engineering challenges. By pushing the boundaries of automotive design, we aim to set new standards of performance and safety.

Collaboration is vital, and the Society of Automotive Engineers values diverse perspectives, effective communication, and personal growth. We mentor and guide our members, engage in outreach programs and promote STEM education. We are driven by excellence, determination, and a relentless desire to make an impact. Together, we leave a legacy of innovation, professional growth, and camaraderie, shaping the future of automotive technology.

ARTICLE III. NONPROFIT STATEMENT*

The Society of Automotive Engineers is a non-profit student organization. SAE International is a 501(c)(3) organization and thus, exempt from federal income tax. It is also classified as a public charity under sections 509(a)(1) and 170(b)(1)(A)(vi) of the Internal Revenue Code. SAE Collegiate Chapters and SAE Collegiate Design Series™ teams are considered SAE International, not independent entities. Therefore, they are eligible to receive tax deductible bequests, devises, transfers or gifts under section 2055, 2106 or 2522 of the Internal Revenue Code.

ARTICLE IV. REQUIREMENTS FOR MEMBERSHIP*

There are no dues or fees required for membership. Any undergraduate student from any major is eligible for membership. Recruitment for the Society of Automotive Engineers consists of multiple projects that do not require prior knowledge but instead focus on effort and willingness to learn and apply knowledge that is taught during the recruitment process. Recruitment is open 1-2 times a year based on availability and need for additional members.

Membership revocation may occur by a simple majority vote of the SAE Leadership Officials

and any pertinent project lead. Reasons for revocation include willfully deviating from design plans set forth, endangerment of self or others, or any sort of harassment. The member in question may set a meeting with Leadership one time only. Upon hearing the members address, the Leadership is charged with discussing membership revocation and coming to a unanimous decision based on reason and fairness. The President must carry out the announcement of the Leadership's decision within 24 hours of the meeting. Reinstatement appeals are accepted after one calendar year of non-membership at the option of the SAE President.

ARTICLE V. FREQUENCY OF ORGANIZATION MEETINGS*

All members are required to attend GBM which occurs once a week. Members are expected but not required to attend multiple project and team meetings depending on the different aspects of the team they choose to be a part of. Members may be subjected to a membership revocation if three or more GBM meetings are missed per quarter without excusal for absence, or show continued inactive behavior, such as a lack of communication regarding project status alongside a lack of attendance at GBM and team meetings.

Minutes will be taken for every meeting; however, members may need to ask project leads or leadership further questions to be fully up-to-speed and continue to remain involved in tasks and other activities.

ARTICLE VI. QUALIFICATIONS FOR HOLDING OFFICE AND METHODS OF SELECTING AND REPLACING OFFICERS*

Only registered UC San Diego students may hold office in the organization. Only registered UC San Diego students may vote in elections for the selection of the organization's officers.

The Society of Automotive Engineers at UC San Diego's leadership will be made of administrative and technical leadership. The two will work synergistically to create the best possible outcomes for the team. Leadership is expected to fulfill their responsibility as stated as their first responsibility, however, they may also work holistically and help each other with the other's responsibility as needed.

The following positions make up the administrative leadership of the project team: President, Vice President, Treasurer, Public Relations Director.

President

- Oversee and be held accountable for the overarching Collegiate Branch of the Society of Automotive Engineers, Inc. at the University of California, San Diego, known on campus as Triton Racing.
- Represent the team as the head of the organization and have final say on all matters related to it.
- Significant changes to the constitution, overarching mission, and major projects fall under the direct jurisdiction of the president.
- The President together with the Public Relations Director should also maintain good working relationships with school administrators, faculty and community advisors, his or her members, and sponsors.
- Promote and maintain healthy team culture and morale, and appropriately resolve or help resolve conflicts on the team.
- Oversee the planning and execution of all important meetings, schedules, team activities, and sponsorship.
- Monitor the performance of all Leadership members and ensure the Leaderships' responsibilities and expectations are being met.
- Take immediate actions when any possible events that might negatively affect the functioning or survival of the team happen.
- Can be overruled on decisions given a 2/3 vote initiated by any one of the following voting members: Vice President, Public Relations Director, Treasurer, Technical Director, Project Manager, Junior Project Manager, Electrical System Officer.
- Quantifiable Responsibilities:
 - o Attend at least 85% of meetings pertaining to SAE including those related to technical, financial, logistics, and public relations matters.
 - o Attend at least 70% of meetings pertaining to SAE related to technical matters
 - o Make final decisions on matters that prove to be administratively divisive.
 - o Validate and approve nontechnical purchases.
 - o Organize the yearly election and revise the organizational structure of the team as necessary. This reorganization must be confirmed by a majority of the elected officers.
 - o Check team emails regularly and make sure all important emails are addressed properly and accordingly.
 - o Register team for competition with the treasurer and VP.
 - o Register the team with CSI with all fellow board members.

Vice President

- Report directly to the President.
- Directly oversee the Public Relations Director and Treasurer Admin and Business Teams and provide necessary guidance and support to their responsibilities.
- Help in administrative activities and share the President's responsibilities per President's request.
- Facilitate and oversee the organization, safety, and internal/external regulations of the physical workspace (project room, storage cages, etc.), digital workspace (Google Drive, etc.), and team accounts (Slack, Google, Bank, PayPal, Venmo, etc.).
- Work closely with TESC to ensure the team's good standing as a TESC organization.
- In the event that the President is no longer capable of performing his or her duties, the Vice President should assume the role of the President. If the Vice President abstains from retaining the role of the President or if the Vice President will not be confirmed by a majority of the elected officers, one should be elected by the general members.
- Quantifiable Responsibilities:
 - o Be present at 70% of the technical meetings.
 - o Be present at 85% of all meetings pertaining to the financial, logistics, and public relations matters, including the 15% of meetings the President is not able to attend.
 - o Attend all TESC meetings and provide updates and feedback to the team to maintain a good relationship with TESC.
 - o Maintain and secure the logins of all team accounts.
 - o Help with any division of the team in registering for an SAE competition.
 - o Can approve non-technical purchases up to \$250.

Public Relations Director

- Build team image. Lead recruiting events and build awareness of the Society of Automotive Engineers at UC San Diego.
- Work on funding opportunities from within the university. Maintain good relationships with the administrative staff within the university that the president also maintains a relationship with (See above at president).
- Lead professional networking and hiring engagement opportunities
- Responsible for maintaining team social media accounts.
- Work on receiving funding from external sources like corporate sponsors.
- Maintain good relationships with external sponsors.
- Quantifiable Responsibilities:
 - o Be present at 70% of the technical meetings.
 - o Be present at 85% of all meetings pertaining to the financial, logistics, and public relations matters.
 - o Maintain existing yearly sponsorship agreements, grants and proposals.
 - o Develop outreach programs and new partnerships as needed.
 - o Retain connections with alumni, and keep them informed and up-to-date with

the team's progress on a yearly basis.

- o Plan the following events: Car Unveiling, Sponsorship events, etc.

Treasurer

- Provide the backbone for accounting within all branches within the organization.
 - Oversee all financial transactions and ensure that a working budget is always available to all teams.
 - Oversee all aspects of purchasing.
 - Work with teams within the organization to build cost reports.
 - Quantifiable Responsibilities:
 - o Be present at 70% of the technical meetings.
 - o Be present at 85% of all meetings pertaining to the financial, logistics, and public relations matters, including the 15% of meetings the President is not able to attend.
 - o Arrange access to team funds for all Leadership
 - o Provide weekly updates on net cash flows, current bank account balance, and projected accounts.
 - o Maintain reimbursement/purchasing tools and documentation held on shared workspaces.
 - o Maintain sole physical access to team credit, debit, and bank cards, or determine who will serve as the keeper of the above cards at the Treasurer's discretion.
- Responsible for all aspects of maintaining, renewing, and canceling team cards

The following positions make up the technical leadership of the project team: Project Manager, Technical Director, Electrical Systems Officer, and Junior Project Manager.

Technical Director

- Facilitate the defining and development of the racecar in order to achieve a meaningful final product and help the team score well at competition.
- Oversee and review the design and manufacture of all parts as they pertain to the Formula SAE rules, the design scopes of the team, and the system integration of all the subsystems.
- Actively assist members in gaining technical expertise as it pertains to manufacturing, engineering, and design.
- Ensure the final product has excellent fit and finish and great attention to detail.
- Directly oversee the maintenance of the team car model.
- Quantifiable Responsibilities:
 - o Attend at least 85% of the technical meetings and design reviews.
 - o Attend at least 70% of all administrative meetings.
 - o Approve technical related purchases.
 - o Work with PM to organize and schedule all important design reviews including the alumni reviews.
 - o Document technical errors and accomplishments during design, manufacturing,

- assembly, and testing for future reference.
- o Ensure all competition reports are submitted on time.
- o Work with the Jr. Project Manager to develop vehicle testing objectives and test plans.
- o Ensure the manufacture of the car happens in a timely manner.
- o Ensure that quality parts are manufactured and fabricated for the car.
- o Ensure team members' safety during the car building process.

Electrical System Officer

- Is the only person on the team that may declare the vehicle electrically safe to allow work on any system.
- Responsible for all electrical operations of the vehicle during the event. This includes ensuring the safety of all members working on the HV/Tractive Systems through appropriate training, personal protective equipment, workspace permits and any other form of safety and liability.
- Is certified or has received appropriate practical training whether formal or informal for working with High Voltage systems in automotive vehicles
- Reports directly to the Technical Director, Must be in regular contact with the Project Manager and Jr. Project Manager.
- ESO's must show proof / certification of HV safety and capability as lead/s.
- Quantifiable Responsibilities:
 - o Attend at least 85% of the technical meetings and design reviews.
 - o Attend at least 70% of all administrative meetings.
 - o Ensure team members' safety within the HV/Tractive workspace
 - o Assists Technical Director in the design and development of the high voltage and low voltage systems of the car, providing the necessary guidance and support to the projects that fall under this category
 - o Ensure that all systems components meet the required safety standards set forth by the FSAE rules, as well as the team-wide safety standards set forth by the Society of Automotive Engineers and the ESO
 - o Ensure that the general body of the team is sufficiently trained in high voltage awareness and safety practices(whether through a workshop, seminar, or test format)
 - o Can approve technical purchases up to \$250

Junior Project Manager

- Reports directly to the Project Manager.
- Assists Project Manager in the design and development of the of the car, providing the necessary guidance and support to the projects that fall under this category
- Share Project Manager's responsibilities per Project Manager's request.
- Run the Driver Training/Driver Selection Program and organize the logistics part of all vehicle testing activities.

- Ensure all team-owned cars are well-kept and well-maintained.
- Quantifiable Responsibilities:
 - o Attend at least 85% of the technical meetings and design reviews including all of the meetings that the Technical Director cannot attend.
 - o Attend at least 70% of all of the administrative meetings
 - o Can Approve Technical Purchases up to \$250
 - o Attend all vehicle running events (testing, driver training, etc.) to ensure the university, city, and state regulations are met.

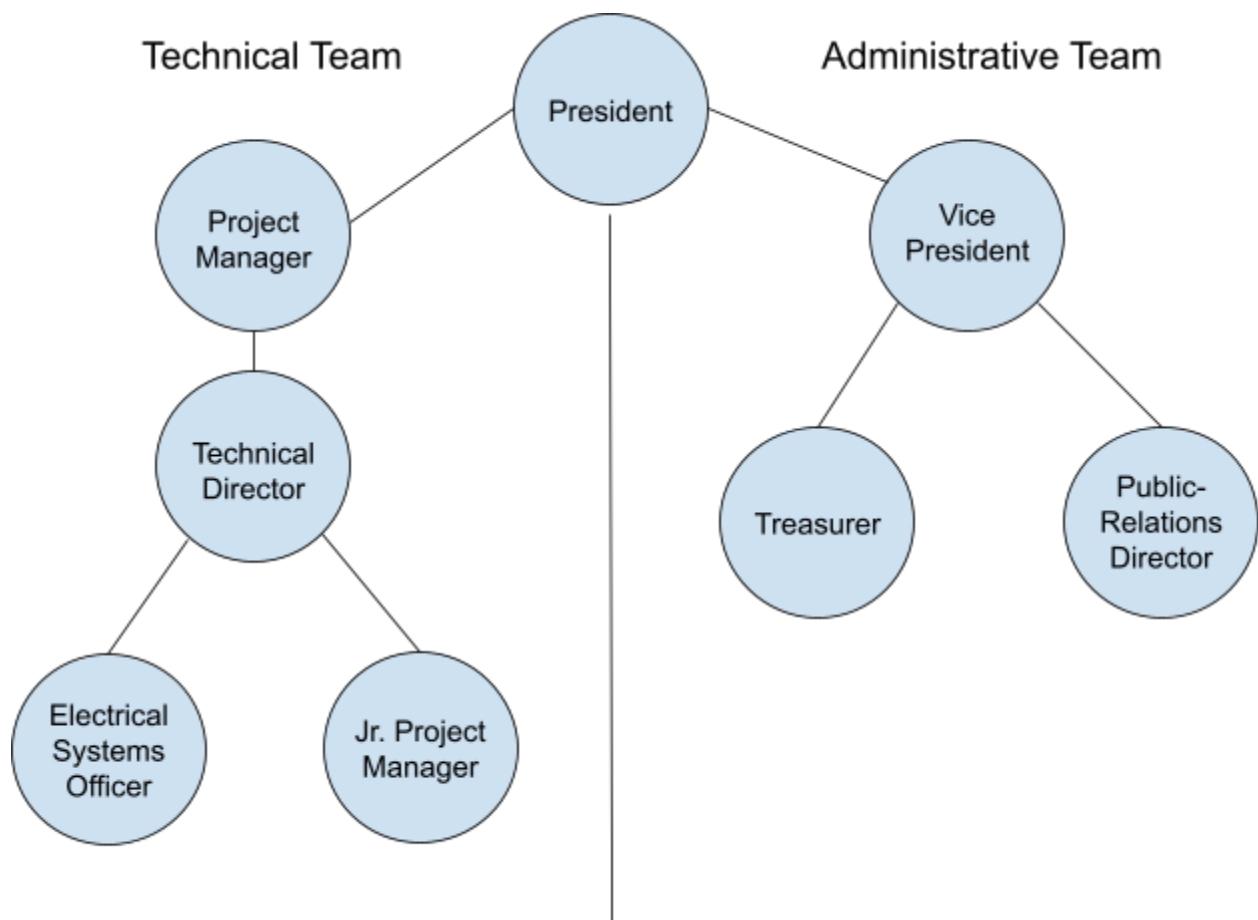
Project Manager

- Oversee and manage the overall project timeline from conception of designs to manufacture of parts, to procurement of items.
- Directly oversee the various technical teams in conjunction with the Technical Director to provide necessary guidance and support to their responsibilities
- Directly oversee the various technical teams in conjunction with the Jr. Project Manager to provide necessary guidance and support to their responsibilities.
- Makes top-level decisions regarding scope and timeline
- Work with team members to streamline processes as mentioned.
- Help quantify progress to help team members understand the time value of the project.
- Help build the design timeline and set critical project management deadlines.
- Quantifiable Responsibilities:
 - o Calculate the time value of parts, processes, activities, etc. based on experience and previous data and determine how long do these need in regards to design, manufacture, assembly, and testing.
 - o Coordinate the team to define the overall project timeline before the start of the project and the detailed timelines for design, manufacturing, and assembly before each stage starts.
 - o Attend 85% of the technical meetings.
 - o Attend at least 70% of all of the administrative meetings.
 - o Document the missed deadlines with reasoning and propose solutions.
 - o Provide informative project management updates weekly and coordinate the team to resolve any project management issues accordingly.
 - o Assist Technical Director with organizing and scheduling design reviews.
 - o Work with team members in conjunction with the other members of the technical admin board to develop progress schedules and project metrics for all projects defined within scope
 - o Approve technical related purchases.

Quartermasters

- There shall be up to two Quartermasters on the team who will assume responsibility for the title and insurance for any team-owned towing vehicle, as well as the title for the trailer.
- Should the Quartermasters pay out of pocket for any team-sanctioned expenses to either the trailer or the towing vehicle, they must be reimbursed by the team
- Regarding decisions of whether an expense is team-sanctioned or not, there must be unanimous agreement between the following parties: the quartermaster/s and a member of the administration. Depending on if any of the following individuals are quartermasters at the time of the vote, the order of succession in the administrative team will be as follows: President, Treasurer, Vice President. If any of the individuals aforementioned are presently a quartermaster, the team-side vote will fall to the next person in succession.
- Quantifiable Responsibilities:
 - o Responsible for the regular maintenance of the team towing vehicle, as well as the trailer.
 - o Sanction drivers for the towing vehicle for team events, and establish clear permission and guidelines if they will not be attending said event
 - o Responsible for keeping track of fuel and maintenance expenditures in a log, as well as keeping track of drivers.
 - o Insure the towing vehicle with an insurance provider of their choosing and at a coverage level of their choosing, and keep track of all related documentation
 - o Register the Property with the Department of Motor Vehicles, and keep track of all related documentation. The names of the Vehicle Quartermasters must go on the Property's title, as an "AND" title, such that, if there are two Quartermasters, both Vehicle Quartermasters need to be present in the event of a title transfer or sale of the Property.
 - o Park the vehicle during the school year, and keep track of all keys that can access the Property. There will be two ignition keys to the Property, one for each Vehicle Quartermaster
 - o Determine if the towing vehicle as well as the trailer are roadworthy and safe
 - o Sign the contract prepared in conjunction with the team and hold onto this documentation for future clarification

Organization Chart



The Leadership board will be made up of eight officers. Voting traditionally takes place towards the end of spring quarter and officers take charge after the current competition is finished. This may be subject to changes depending on competition timeline, officer availability and other factors and is therefore left to the discretion of the President.

Leadership will be elected through two steps for every position:

- During the first step, any active member on the team may choose to apply for a position. The election process will model a seminar or Roman papal conclave, where all members of the team – including potential incoming officers – deliberate as one body on the candidacy, qualifications, and abilities of each candidate for each position. Members may decide to provide a speech, remove themselves from the application process, answer questions from the general body, or any form of expression. If more than one candidate remains for the position after 15 minutes of deliberation, the process must

move onto the second step.

- During the second step, remaining candidates will be voted upon by current, active members on the team that are not graduating within 6 months. A simple majority vote is needed to elect individuals.

The intent of this voting system is to allow the best candidate for each position to have the time and opportunity to adequately defend their case, and correctly address concerns as opposed to other forms of voting.

If candidates are running for multiple positions, they'll forfeit their right to run in subsequent positions in this order: President, Vice President, Project Manager, Technical Director, Electrical System Officer, Junior Project Manager, Public Relations Director, Treasurer.

The role of Quartermaster is open to the first individual/s who volunteer for the position, if they are in agreement on co-ownership. However, it is fully within the officers discretion to veto their request to serve as Quartermaster if there are serious concerns about their capability to serve in that position.

ARTICLE VII. RISK MANAGEMENT*

The Society of Automotive Engineers recognizes that all student organization activities must be conducted safely, in accordance with all applicable federal, state and local laws. The Society of Automotive Engineers at UC San Diego is a registered student organization at the University of California, San Diego, but not part of the University itself. The Society of Automotive Engineers at UC San Diego understands that the University does not assume legal liability for the actions of the organization.

ARTICLE VII. SECTION 4. IN CASE OF HANDLING OF HAZARDOUS CHEMICALS, MATERIAL, EQUIPMENT, AND/OR MACHINERY

The Society of Automotive Engineers at UC San Diego recognizes that all student organization activities must be conducted safely, in accordance with all applicable federal, state and local laws. Additionally, The Society of Automotive Engineers at UC San Diego will abide by UC San Diego requirements for students in labs, including policies for minors in UC laboratories, and ensure members receive safety training regarding the use of chemicals and/or machinery before entering the lab. Members must follow any best practices and lab safety protocols for the use of such chemicals, research equipment or machinery, including the appropriate use of Personal Protective Equipment, and should work under close supervision of those trained in the handling of chemicals/use of research equipment or machinery.

ARTICLE VIII. COMMUNITY ADVISOR

The Society of Automotive Engineers at UC San Diego is required to have a Community Advisor due to its Pre-Professional organization type. The selected Community Advisor should have extensive experience in the automotive or engineering industry, and should be able to provide technical and managerial guidance to the team. In the case of the team heading toward the wrong direction, the Community Advisor needs to try his/her best to identify the problems,

notify the team, and work out the solutions with the team officers and members. The Community Advisor should regularly monitor the health and safety of the team and prevent the team from deviating from its scope and purpose.

Selection and term periods of community advisors will be determined by leadership on a case-by-case basis.

ARTICLE IX. FINANCIAL MANAGEMENT

The Society of Automotive Engineers at UC San Diego is funded through grants, sponsorship agreements, and donations from external sources as well as internal sources through the University of California San Diego and the Jacobs School of Engineering (JSOE).

Funding from internal sources will be tracked through a Funding Manager as designated by the Mechanical and Aerospace Engineering (MAE) department at JSOE. All external sources will be deposited directly into the team bank account created and managed by SAE International®. All forms of fund management are to be directly available to the President, Vice President, Treasurer, and Project Manager.

All team members are expected to follow instructions regarding sponsorship outreach from the Public Relations Director, or subsequently any member of Leadership. Any changes to account holders will need to be approved by a majority vote of elected leadership.

ARTICLE X. AFFILIATION WITH OTHER GROUPS

The Society of Automotive Engineers represents the University of California San Diego at the SAE International® series as part of hundreds of other collegiate teams in the competition. As such, the team competes with teams at an international level, however the majority of teams are from the United States.

In order to attend competition, members on any team as part of SAE International® are required to pay a student subscription on sae.org to receive appropriate permissions.

Since 2021, the Society of Automotive Engineers has partnered with the Students for the Exploration and Development of Space (SEDS) as part of a joint female engineering mentorship(FEM) program. This focuses on providing opportunities to and increasing the retention of young engineers of diverse backgrounds. Paired with a SEDS or TR mentor, members of each year's cohort will work on technical project teams, get continued support throughout their education, and benefit from the community's collective experiences.

Since 2022, the Society of Automotive Engineers has been working with the Rady School of Management to incorporate more diverse majors from different backgrounds into the team. This was done in an effort to get our team to compete at a higher level and incorporate aspects such as accounting, business plans, sponsorship outreach and planning.

Since 2023, the Society of Automotive Engineers has partnered with The Green Initiative Fund at UC San Diego as part of the Electric Powertrain project. An aspect of this includes developing sustainable engineering focused individuals to work on end-of-life cycle analysis of components, and design timelines to be implemented in creating change, and further sustainability on the team.

