

# Rocket Propulsion Laboratory at UC San Diego

## Constitution

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### Article I. Name of Student Organization

The organization shall be called Rocket Propulsion Laboratory at UC San Diego.

The organization shall be similarly referred to as RPL.

### Article II. Statement of Purpose

The purpose of Rocket Propulsion Laboratory at UC San Diego is to help students develop engineering capabilities and promote good engineering practices to prepare them for industry careers. In pursuit of this goal, Rocket Propulsion Laboratory at UC San Diego will focus on designing innovative propulsion systems and launch vehicles for aerospace applications. Members will learn how to conduct effective research and implement that research in practical applications. By developing these systems from the ground up, members will gain experience and skill in the areas of design, analysis, testing, fabrication, safety, and flight hardware operations.

### Article III. Nonprofit Statement

Rocket Propulsion Laboratory at UC San Diego is a non-profit student organization.

### Article IV. Requirements for Membership

1. Members of Rocket Propulsion Laboratory at UC San Diego must be either an undergraduate or graduate student at UCSD, or be approved by the UCSD MAE Department as a student/staff volunteer.
2. To become a member, applicants will be evaluated based on technical competency, dedication to the organization, and passion for the projects through an application process. To become a member, students or approved parties must submit an application (available upon request or via the team's public website [rocketproplab.org](http://rocketproplab.org)) which will be reviewed by the organization's Officers (see Article VI). Interviews will be performed on an as-needed basis for higher-level technical or Officer positions to evaluate technical competency and personality for means of placement within the team only; technical skill shall not be used as a basis for denying membership.
3. Members will be expected to pay annual dues of \$30. If a member is unable to pay dues and communicates that to the President or VP of Finance, an exception can be made. If a member fails to pay dues and does not communicate a valid reason to the President or VP of Finance, they will be asked to leave the club.

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4. Applicants do not need to have prior knowledge of engineering or rocketry practices before applying, but must show an active interest to learn.
5. Membership is on an at-will basis; members can leave the organization at any point, for any reason.
6. If a plurality of both Primary and Secondary Officers (i.e. more votes for than against) decides that a member's performance is below expectations for the organization, and that the member is not making an effort to improve, then the member may be removed from the organization.

**Article V. Frequency of Organization Meetings**

All organization members will be expected to come to one weekly workday. Teams with critical path items (those which are furthest behind and drive the overall project schedule) are required to meet at least one extra day during the week. Critical path will be determined by the President, Project Leads, and Subteam Leads. All members are expected to come to every meeting; however, there will be no official requirement for attendance. Meeting minutes will be taken for the weekly updates for members that could not make it to the workday.

**Article VI. Qualifications for Holding Office and Methods of Selecting and Replacing Officers**

Only registered UCSD students may hold office as Primary or Secondary Officers in the organization. Only registered UCSD students may vote as Primary or Secondary Officers. Officers vote in elections for the selection of the organization's officers. Each Officer's vote will only count once, regardless of the number of positions held by the Officer.

The Primary Officer positions in RPL are President, Director of Business Development, Chief Safety Officer, and Project Leads. The President will be in charge of executive decisions, which can be overturned in the situation that at least the majority of remaining primary officers (the Project Leads, and Chief Safety Officer), or a plurality of the RPL Secondary Officers, are in opposition to any decision. The Project Leads, also referred to as Chief Engineers, will lead the organization's technical projects and directly supervise each project's team of engineering Subteam Leads. The Chief Safety Officer will be responsible for ensuring the health and safety of RPL members during all official RPL operations, and shall have the authority to hold all members and Officers accountable for the safety of their conduct.

Secondary Officer positions in RPL include the Lead Analysis Engineer(s), Lead Avionics Engineer(s), Lead Propulsion Engineer(s), Lead Plumbing Engineer(s), Lead Structures Engineer(s), and Lead Recovery Engineer(s), each of whom will be responsible for the supervision and development of their specific subsystem within each project. Additional Secondary Officer positions include the Vice President of External Operations, Vice President of Finance, Vice President of Internal Operations, Website Development Lead, and Graphic Design Lead, each of whom will be responsible for executing the administrative operations of the organization.

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All officers will be decided upon by a vote from the previous academic year's Primary Officers. They will be elected during the start of Spring Quarter after proceeding through an interview process and will serve for the following school year. Any member in the organization is eligible for office. Officers will assume their position officially at the end of the academic Spring Quarter in which they are elected but they will be responsible for joining in the standing executive board during their meetings throughout the Spring Quarter to understand the expectations of their jobs. Any Primary or Secondary Officer may be asked to go through a performance review with the Project Leads, Chief Safety Officer, and/or President as appropriate due to poor performance or inappropriate behavior or conduct, in which they are placed on a probationary period where they must meet expectations as stated by the Project Leads, Chief Safety Officer, and/or President as appropriate. Officers are replaced/removed if they fail to meet their deadlines and keep their teams on track for the project. Officers will be removed from the organization if a majority of the other Officers agree that their behavior or conduct is inappropriate, and if they make no significant improvements after an official written warning (i.e. email chains, screenshots of messages, chat logs, etc.).

### **Article VII. Risk Management**

Rocket Propulsion Laboratory at UC San Diego is a registered student organization at the University of California, San Diego, but is not a part of the University itself.

Rocket Propulsion Laboratory at UC San Diego understands that the University does not assume legal liability for the actions of the organization.

Due to the risks associated with the projects undertaken by RPL, any minors with membership in RPL will be required to obtain guardian's approval before working with hazardous materials. However, minors can work on the design and analysis portion of the projects without such approvals.

Risks associated with RPL may include but are not limited to hazardous chemicals, high pressure systems, combustion of hazardous chemicals, sharp objects, and heavy machinery. To help mitigate injuries, members will be required to attend a safety workshop hosted by the Chief Safety Officer to inform members of proper safety protocols and expected behaviors of the members to mitigate risk. Communication will be necessary when one does not feel that the area is safe to work in and the Project Leads or a Subteam Leads will need to review the area and approve when it is safe to return to work.

The Executive Board does not have the sole authority to approve an activity, as that authority rests with the faculty advisor. Rocket Propulsion Laboratory at UC San Diego will comply with all competition, federal, and state safety requirements, as well as federal and state laws governing the manufacturing, use, and transportation of rockets, aeronautic and astronautic components/vehicles, as well as materials used to construct such components/vehicles. Rocket Propulsion Laboratory at UC San Diego will ensure members know applicable state and federal laws (including laws governing the transportation of materials used to construct rockets/aeronautic/astronautic components) and work in conjunction with safety personnel. Each team must designate a safety officer to evaluate risks and regulatory restrictions, then

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incorporate appropriate controls into design and activity plans that ensure maximum safety and full regulatory compliance for review and approval by the club's faculty advisor. Use of hazardous materials (chemicals, flammable solvents, reactive materials, fuels, propellants, etc.) must be reviewed and approved by the club's faculty advisor. Transportation of hazardous chemicals, fuels, and/or machinery will be done by a licensed carrier. Rocket Propulsion Laboratory at UC San Diego understands that the University does not assume legal liability for any of the organization's activities.

**Article VIII. In Case of Handling of Hazardous Chemicals, Material, Equipment, and/or Machinery**

Rocket Propulsion Laboratory 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, Rocket Propulsion Laboratory 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 IX. Community Advisor**

Rocket Propulsion Laboratory at UC San Diego will have a Community Advisor who provides technical and managerial advice to the organization. The Community Advisor will be expected, but not required, to review technical documentation produced by Rocket Propulsion Laboratory at UC San Diego before any large purchases or major design changes. Large purchases are generally purchases of value \$1000 or greater. Major design changes are determined at the discretion of the Project Leads and/or President. Advisors will serve, at a minimum, for the remainder of the academic year in which they were selected. Furthermore, the Community Advisor must act according to the risk management section.

Rocket Propulsion Laboratory at UC San Diego will find a Safety Advisor that will have oversight of members when they are using dangerous chemicals, materials, or equipment. The Safety Advisor will reviews members' written procedures for how to handle dangerous chemicals, materials, or equipment to make sure members are taking the utmost care in minimizing dangers and injury to themselves and others. The Safety Advisor can be a professional from industry or campus faculty. The Safety Advisor can also be the Community Advisor.

**Article X. Financial Management**

Rocket Propulsion Laboratory at UC San Diego will finance its activities through donations from third party companies. Donations will be handled by the President, Director of Business Development, the Vice President of Finance, and the Vice President of External Operations. All funds shall be documented and deposited into the Rocket Propulsion Laboratory at UC San Diego index accounts. Our organization will submit a budget to A.S. to help fund team bonding activities as well as smaller purchases for engineering projects.

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Funding projects through the use of personal funds shall be prohibited except in the case of express, prior written approval from the Vice President of Finance and the President or applicable Project Leads following internal guidelines for purchase reimbursements. Purchases made without the required approval will not be reimbursed.

The President and other VPs are expected to verify the proper and ethical management of funds. Furthermore, a view-only sheet will be created on the team's shared Google Drive for the VP of Finance to keep track of the organization's purchases, payments, and income.

### **Article XI. COVID-19 Emergency Measures**

Rocket Propulsion Laboratory at UC San Diego recognizes that the global emergence of COVID-19 has necessitated a change in how our organization will conduct its operations per state, federal, and Centers for Disease Control and Prevention (CDC) guidelines. Rocket Propulsion Laboratory at UC San Diego will adhere strictly to established University regulations and guidelines, in addition to state, federal, or CDC regulations, regarding safe practices for COVID-19. At no point will the organization conduct operations or events which are inconsistent with established University regulations regarding COVID-19. Due to the rapidly evolving situation, the organization's Primary Officers, under supervision of the Community and/or Faculty Advisors, will be responsible for monitoring updates to University regulations and ensuring that the organization and its operations or events remain compliant with stated regulations at all times.

All meetings will follow UCSD rules and guidelines and any event held will be processed through the appropriate departments in UCSD.

Organization-wide operations, activities, and events will be limited to those within the scope of established University, state, federal, or CDC guidelines in place. These activities include, but are not limited to, Computer-Aided Design (CAD), Finite Element Analysis (FEA), project training presentations or design reviews, and project manufacturing some of which will be coordinated remotely and electronically and some will be coordinated in person as the situation requires. The organization will continually monitor updates or changes to established regulations as the global situation evolves to ensure that any planned operations remain consistent with established regulations.