

Appendix B: Team Document Examples

B1: Supermileage Team Structure (2015/16)

UBC Supermileage Team

2015-2016 Executive Role Descriptions

Purpose

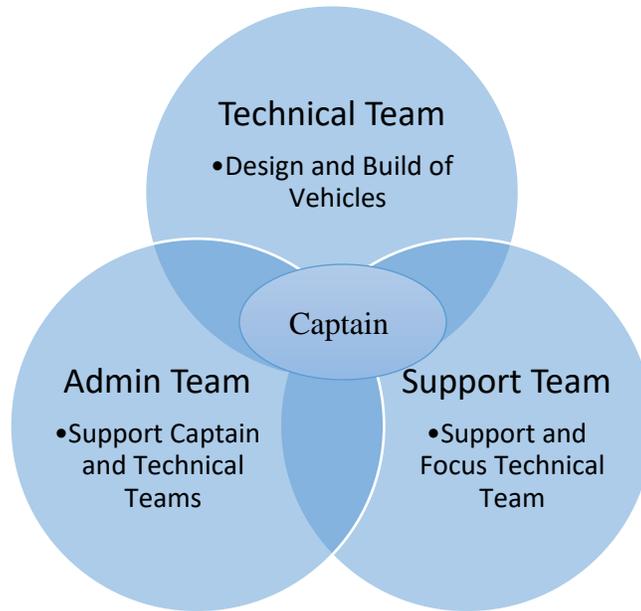
This purpose of this document is to define the executive positions on the UBC Supermileage team. This is a supporting document for the “2015-2016 UBCST Executive Role Applications” and exists to help you determine what role best suits you! It also helps clarify new team structures and outline the division of responsibilities for all current lead and administrative positions on the team.

Use this document as a tool to learn what you need, or clarify questions you have: there is no requirement to read its entirety!

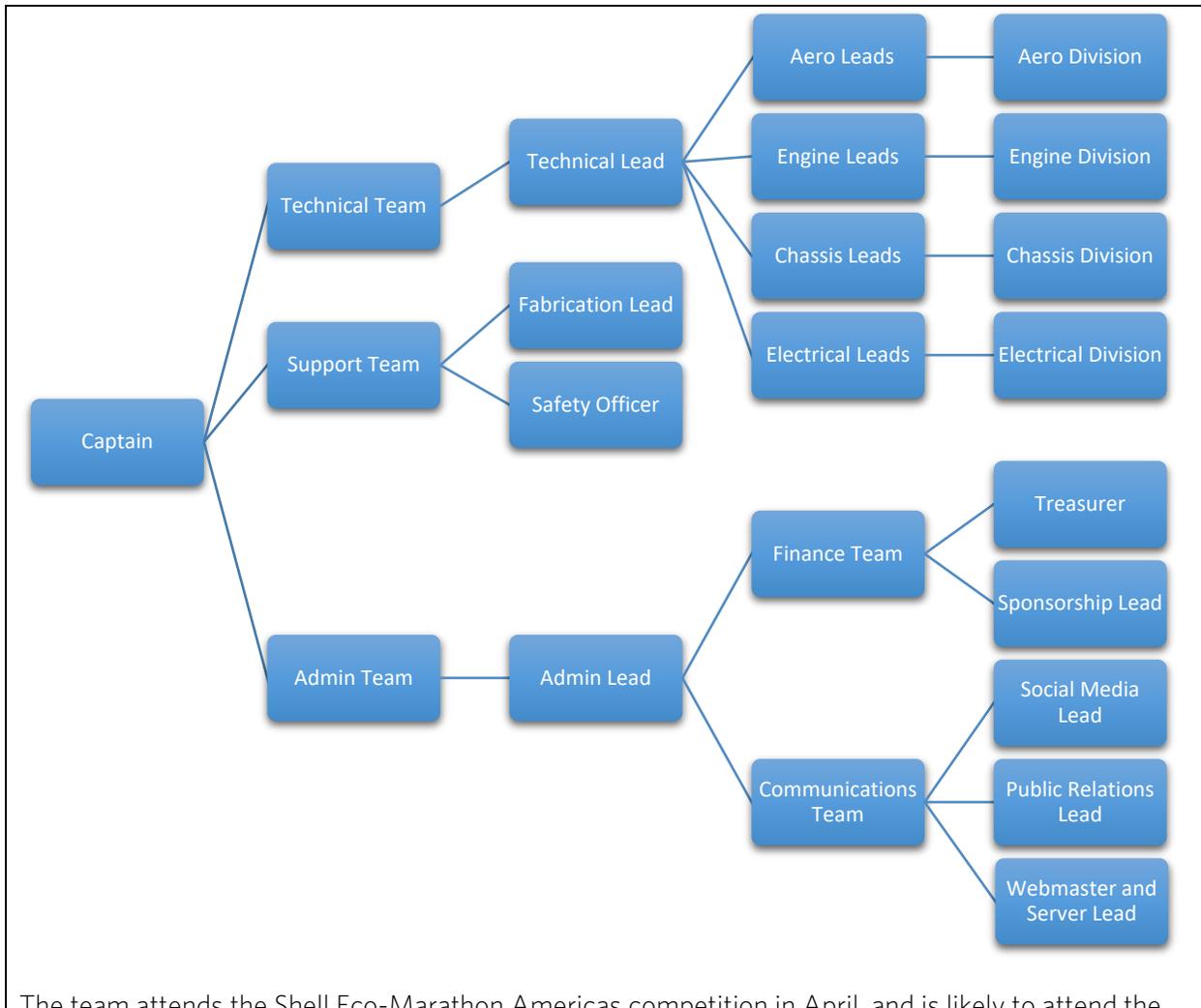
General Structure

The purpose of the UBC Supermileage team is to create super fuel efficient vehicles for international competitions, promote the education of future engineers, and raise awareness for sustainable transportation and energy usage in the community.

The current team structure involves a Captain and three main groups: Technical Team, Support Team, and Administrative Team.



The Technical Team is focused on the design and fabrication of the vehicles. The majority of the team is in this group within one of four divisions: Aero, Chassis, Engine and Electrical. The Technical Team operates with the guidance of the Technical lead who oversees the respective design and manufacturing projects within the divisions. The Support team is a group of leads without divisional members which provide higher capacity assistance where needed, including Safety and Fabrication. The Administrative Team oversees finances and communication for the team, including social media, external communications, events and sponsorship. The Captain directs all three groups towards the team vision, ensures cohesive design within the technical groups and completion of overall project. A diagram of this structure is shown below.



The team attends the Shell Eco-Marathon Americas competition in April, and is likely to attend the SAE Supermileage competition in June. Note that while the team generally follows a school year schedule (September to April), the summer is also used as a transition period and a new executive can expect responsibilities to begin as soon as appointed to their position. Planning and budgeting processes begin by June at the latest.

If structure changes are desired by members or leads throughout the year, they should be brought up at a leads meeting and voted on by the team. If positions aren't filled, the Captain will determine alternate distribution of roles or other plans as needed and vote on these at the next team meeting.

General Responsibilities

All executives have the following responsibilities:

- Determine year plan and budget by June 30, 2015
- Document activities throughout the year and save on team file sharing system
- Update schedule regularly
- Promptly respond to team related emails, calls or other communication
- Participate in all leads meetings and general meetings

- Maintain communication with captain and update them on division progress and issues
- Maintain communication with other divisions and ensure no conflicts between projects
- Fill out transition document at end of year
- Assist with deciding new executives and transition with them
- Respect other team members

General team member expectations:

- Participate in all general meetings
- Encouraged to attend all leads meetings
- Complete assigned projects or documents by date outlined by lead
- Maintain communication with lead throughout project
- Ask if you don't know something!
- Work in a safe manner, ensure you have appropriate training for your job
- Respect other teammates and users of Rusty Hut or work area: clean up!
- Assist in as many recruitment, outreach and media events as possible
- Assist with sponsorship applications as needed

Technical Team

The technical team is in charge of the design and manufacture of team vehicles and leads are the project managers of the technical team divisions. A lead position on the technical team requires a large commitment of time and energy, but also high reward and opportunities. The responsibilities are quite demanding but are generally shared amongst two or three co-leads. Leads are the head of their division and are responsible for the overall project design, logistics and completion. The role includes the following expectations for each division:

- Oversee the overall design, resources and completion of the division's portion of the vehicle
- Determine scope and financial needs
- Define all projects and understand their requirements
- Prepare and present a training module at the beginning of the year for new members
- Delegate projects and manage division members
- Provide guidance, mentorship and motivation to members
- Ensure all members have appropriate skills or training for their task
- Promote the development of new skills and innovations
- Ensure support and mentorship is available for all division members
- Regularly update division members on expectations and divisional progress
- Oversee and participate in design and fabrication work
- Order parts and submit receipts to treasurer (**ensure only leads order parts**)
- Ensure all projects complete in a timely manner and comply with rules

In summary: leads are in charge of planning projects, managing team members, and handling finances for their division. They work closely with other divisions to ensure cohesion and the highest

mileage vehicles possible. This role is well suited for someone with a competitive nature, strong leadership skills, and a passion for innovative engineering.

Technical Lead

The Technical Lead is in charge of overseeing the work of the technical team. They push deadlines and keep the technical leads on track with the work schedule and ensure that proper documentation of design work is maintained. The technical lead must have a firm understanding of the competition regulations and work with the leads to ensure proper dimensioning and safe practices. They have an understanding of the big picture therefore promote cross communication between the divisions and offer support for integration of the systems. The technical lead will also work with leads in the beginning of the year to train new recruits on equipment handling, the technical details of the vehicle and direct appropriate resources to member with technical questions. In addition, this lead position has been made to promote a focused program of multi-year projects to put UBCST on top at competition. They also exist to promote sound engineering and innovations and prevent the team from becoming stuck in a rut, or chasing currently winning designs.

Responsibilities

- Focus team on long term design
- Work with captain to arrange leads meetings and chair the technical discussion
- Ensure part orders are properly documented
- Consolidate separate division timelines into one team schedule
- Co-ordinate the two+ year design projects
- Ensure current projects work with future plans
- Assist leads with the training of new divisional members

Divisions

This section will outline the technical aspects each division works on and help clarify which division is responsible for crossover projects between divisions. As needed, project responsibilities are shifted between divisions after a clear discussion with the technical lead, the leads involved and the captain. Each division works on both cars. The Division Leads are the specialists in charge of each division that help develop the vehicle and run the “company”. The Division Members design and build the vehicle, and are in constant training to become Division Leads.

Aero

- Aerodynamic shell, windows, hatches, doors, latching mechanisms
- Shell mounting: responsible but works with Chassis team
- Research and Development of new monocoque body - Work with Chassis Team

Engine

- Engine, fuel injection, fuel system, sensors, ECU, drive train, engine tuning, dynamometer
- Engine mounting: responsible but works with Chassis team
- Drive shaft: responsible but may be transferred to Chassis
- Develop rolling Dyno/Test Stand for prototype - Can be made into Capstone project

Chassis

- All other mechanical components of car: chassis base, steering system, wheels and wheel mounting, braking systems, throttle activation, firewall, roll cage, driver ergonomics, safety systems, ballast
- Components such as horns, steering wheel, wiper, battery mounting: responsible for component mounting and electrical to do wiring
- Cable routing, throttle and brake lines: work with driver, electrical and engine

Electrical

- All electrical wiring, electrical panel and ECU mounting, wire routing, and external kill switch mounting, dynamometer wiring and programming
- Driver and competition communication equipment (radios etc.)
- Lights mounting: responsible but work with Aero

Note that these are not exhaustive lists or hard boundaries: innovation and new projects are needed each year to remain competitive! The delegation and functional separation of work is driven by each team member's technical skills and interests.

Technical Support

The technical support team is new in 2014 and exists to streamline the team and reduce load on the technical leads. This team helps ensure cohesion and inter-divisional work, as well as a sense of support and guidance to all members. Technical team leads work with all divisions and delegate tasks as needed, but are not in charge of a set group of team members. This is a new team so the leads are encouraged to be creative and try new things! This is a sort of freelance team: they are not tied to a specific division or the captain and are able to take on tasks as needed throughout the team.

Fabrication Lead

The fabrication lead is a focal point to ensure the build portion of the cars comes together on schedule. This role is suited to someone experienced in general fabrication on all aspects of the vehicle, and who likes to get their hands dirty! Their main responsibility is to provide extra man power and assistance to push large jobs to completion. If a lead is working on a major project such as a shell mould and layup, the fabrication lead will assist that lead in the planning, scheduling and execution of the project. Leads are heavily focused on the completion of the technical project: the fabrication lead can help ensure setup and cleanup are accounted for as well. This includes a routine bi annual cleanup of the downdraft table.

This lead is a resource for members to talk to in the design stage to ensure a project is designed appropriately for manufacturing. The fabrication lead works to ensure proper housekeeping of the tools and machines and is in charge of ordering replacement parts if necessary. Pre-competition, the fabrication lead manages the construction of the shipping crate.

Responsibilities

- Major project assistance
- Support for leads
- Promote design for manufacture in all divisions
- Equipment housekeeping
- Train and assist new members with equipment handling

Safety Officer

The safety officer is in charge of team safety and the overall culture of safe work practices. This job is critical as it is a requirement of our workplace! This lead coordinates the safety orientations in September and ensures the team meets all safety requirements of working in Rusty Hut or other buildings. They are also in charge of promoting a clean, respectful environment, which is a safe environment! This is a highly important position as it also promotes a culture of professionalism and quality which is reflected in our vehicles. This is not a highly time consuming position and is usually held with other roles, but it is one that must be filled. This year, to enforce cleanup practices by all members of the team, the safety officer is authorized to write up members for unsafe or dirty working areas.

Responsibilities:

- MSDS binder
- Rusty hut orientation and safety documents
- Safety equipment purchases
- Replenishing stock of disposable safety items (respirator cartridges, dust masks, latex gloves)
- Promoting shop cleanliness and housekeeping
- Proper disposal/pick up of chemicals/containers (aerosols, paint cans) Chemical Waste Inventory and Disposal
- Injury Tracking

Administrative

The function of the Administrative Team is to run the business side of the team and reduce load on the technical leads. This allows more time for high quality design from the technical team, and higher quality documents, finances and public image of the team.

Admin Lead

The Admin Lead is both co-ordinator and support for the admin team as well as support for the Captain. They pick up any other administrative pieces not covered by the Captain or members of the admin team. Much of this role has been under the Captain in the past, however as the team has grown and goals have grown, there are more balls for the captain to juggle. The Admin lead is needed effectively as a Vice-Captain, to take up jobs which otherwise distract the captain from overall team goals and prevent balls from being dropped. Their duties are generally ones with high consequences, requiring meticulous attention to detail, such as ensuring all members submit a department required document. This role is suited to someone with an extremely organized nature, patience and experience on the team.

Responsibilities

- Support and co-ordinate Administrative team
- Support Captain as needed, often as a Vice Captain role
- Secretary and meeting minutes' taker (delegate as needed)
- Competition travel logistics
- Rusty Hut, EDC, and other access
- Help ensure divisions update schedule and submit receipts on time
- Update captain regularly on progress of admin team, inform of challenges and issues

Finance Team

Treasurer

The treasurer is in charge of the team's budget, incoming finances and expenses. All receipts are received by this person and documented in budget. You do not need a background in finance to apply, but strong organizational skills are crucial. This role is one of the most critical ones on the team; you are in charge of keeping track of a very large sum of money and involved in crucial decisions in every area of the team.

Responsibilities

- Set up yearly budget with Captain: expected income and allowable expenses
- Maintain this budget throughout year
- Primary applicant for major UBC finance pools: PAF, Mech, Shell, Walter Gage funds, etc
- Keep track of all money coming in and out, document and report progress regularly
- Submit receipts for lead reimbursements (note: a lead is responsible for getting receipts to treasurer in a timely manner)
- Keep copies of all receipts for team use
- In charge of final report submissions to major UBC funding sources

Note that while in charge of all major UBC finance pools, as with any lead, delegation is allowed and often recommended. The treasurer is in charge of ensuring all documents are submitted on time and all team members are reimbursed appropriately but they don't have to do everything themselves!

Sponsorship Lead

This person is in charge of all sponsorship external to UBC and Shell funds. This is a role for someone looking to be involved in raising money for the team in a more creative way. External sponsors are challenging to recruit and require time and focus to maintain. It can involve personal meetings, email, socials or any other event this lead comes up with. This role requires prompt and professional communication skills and availability in the summer, even if working from outside Vancouver. It is important that all connections made are maintained and turned over for future years. Fundraising events are also an option however these haven't been done in the past as there is a concern about the professional image of the team.

Responsibilities

- Sponsor package and template emails
- Sponsor tracking
- Distribution of application duties
- Negotiating agreements with sponsors
- Acquiring up to date sponsor logos
- Ensuring stickers and other sponsor commitments are followed
- Follow up with sponsors regularly: provide updates and maintain contact
- Thank you cards at end of year

Communications Team

Public Relations Lead

The public relations lead is in charge of overall publicity and ensuring the team's public image is positive and accurate. This role requires professionalism and strong interest in understanding all aspects of the team and goals for the year. The UBCST focuses heavily on connecting with the public to promote sustainable transportation and this role is the focal point for promoting the team's sustainability goals. This person is in charge of planning, scheduling, co-ordinating volunteers and promoting all public relations events. In addition, they collect regular updates from the team, maintain marketing material such as PowerPoints, videos, posters and banners. It is an exciting and high profile role, working with major media such as Global, Metro, Discovery and more. This role is for someone who enjoys public speaking, has artistic interests and lots of creativity. The role can be as big as the lead makes it!

Responsibilities

- Public image of UBCST
- Collect regular updates from team
- Work with Social Media lead to display updates
- Write press releases and work with media teams
- Plan major events: Imagine Day, media events, outreach, Shell Challenge learning events, and more
- Manage team presentation materials
- Co-ordinate talent such as photographers, videographers etc.

Note: it is important this lead maintains the goals of the team and understands the schedule of the team: an event requiring a running car cannot be scheduled until there is a running car! Additionally, media and other events should not interfere with but work together with technical goals.

Social Media Lead

Ever find yourself bored in class and wishing you had something to tweet about, or a cool story to blog about? This is your time to shine! The social media lead is in charge of all online updates about the team. They work closely with the Public Relations Lead to get content from the team then turn it into a bizarre story that vaguely resembles what we do and usually requires reading with a British accent. Seriously, have you read our blog? The role requires endless creativity, but also professionalism and an understanding of appropriate tone for each medium.

Responsibilities:

- Weekly or Bi-Weekly updates of the following
 - Blog
 - Website
 - Facebook
 - Twitter
- Thank You posts to sponsors as appropriate

Note: the webmaster is in charge of 'static' website content: pages which give information about the team, sponsors, contact information etc. The Social Media lead is in charge of 'dynamic' content: regular updates on the main page.

Webmaster and Server Lead

A job for someone who is computer savvy! This is effectively the go-to person for all IT needs of the team. The major need for this lead has arisen due to the lack of time and experience of current team members. There is a large team need for a functional document storage platform(s) with consistent access, sharing functionality and other needs to suit the team. A main part of this lead position is to determine or design a long term document storage method for the team and keep it maintained. Investigating new website designs and maintaining a reliable website is the other major component of the role. There is a lot of potential with a website that is first on the search list for Supermileage. This position is brand new and wide open to fresh ideas and innovations.

Responsibilities

- Server or document storage design and set up
- Maintain document storage
- Website design as needed
- Website maintenance
- Static website content
- Assist with email structure and maintenance
- Assist with IT related projects: wireless driver/car communications, simulation programming and more

Note: the webmaster is in charge of 'static' website content: pages which give information about the team, sponsors, contact information etc. The Social Media lead is in charge of 'dynamic' content: regular updates on the main page.

Captain

The Captain directs all three groups towards the team vision, ensures cohesive design within the technical groups and completion of overall project. They maintain the course of the ship and are in charge of the overall success of the team. The captain must make all decisions with support of the team unless in an emergency situation. All planning, scheduling and budgeting for each division and sub-team is completed by the Division Lead or Executive and overseen by the Team Captain. The captain is the face of the team for public events and competition.

Responsibilities

- Determine with team the overall goals and technical plans for the year
- Maintain team direction and image/brand
- Determine team structure and executives, ensure efficient use of team members
- Promote a healthy team culture, education, innovation and high quality vehicles
- Overall shop cleanliness, safety and functionality
- Lead high level planning, scheduling and budgeting with team
- Ensure transparency of budget and inclusion of team in all decisions
- Oversee all three groups, ensuring cohesion and adherence to plans and schedule

APPENDIX B: TEAM DOCUMENTS

- Maintain communication and accountability
- Track milestones and determine when compromises or sacrifices must be made in project/budget, lead discussions with team
- Ensure completion of entire project on schedule
- Primary face of the team for media and sponsor relations
- Primary competition contact, in charge of registration, documentation and deciding attendees
- Ensure documentation throughout year and turnover at end of year