

# AERO MCGILL

## 2020✈️2021

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### SPONSORSHIP PACKAGE



MCGILL AEROSPACE DESIGN SOCIETY

Greetings,

As director of the McGill Aerospace Design Society, or AERO McGill, I would like to thank you for taking the time to read this package.

In 2020, we enter our sixth year of existence and we continue to attract talented students from a multitude of faculties at McGill University as we seek to empower them to become the next generation of aerospace professionals. From highly automated multirotor to heavy-lift fixed-wing platforms and hand launched aircraft, our fleet is built by teams actively competing in the annual SAE Aero Design competitions and the Unmanned Systems Canada competition. Furthermore, we push the boundaries of flight with special initiatives to develop novel aircraft, such as a solar-powered UAV.

AERO McGill takes on a plethora of challenges in engineering, aviation and beyond. In previous years, we have explored air mobility, payload delivery, long range secure communications, survey, site inspection and professional flight operations. As we design, manufacture and operate remotely-piloted aircraft and unmanned aerial systems, we also develop the technical and interpersonal skills required for the success of our students in the aerospace industry.

However, as a student initiative, AERO McGill's activities would be impossible to sustain without the support from the community. Therefore, we reach out to you as we hope to form partnerships with members of the industry who are looking to invest in the future of aerospace.

**XXXX** is a reputed leader of (\_\_\_\_\_) industry around the world. Our pilots and ground crew appreciate the usefulness and reliability of the (\_\_\_\_) products like the (\_\_\_\_). We would be grateful for any financial or relevant in-kind contribution you are able to provide to our dynamic group of students.

I write to you with the hope of starting a long-term relationship between our thriving society and distinguished industry members of your company.

Kind Regards,

**Adam Targui**  
**Director, AERO McGill**





## A. THE TAKEOFF

The McGill Aerospace Design Society was imagined by a group of students at McGill University with a shared passion for aerospace to enable like-minded members of the community to acquire hands-on experience that complements the classroom theoretical knowledge.

AERO McGill provides an opportunity to give our fellow students an environment to learn more about aircraft design and apply the topics covered in classes of fluid mechanics, computational aerodynamics, electronics, signals as well as aircraft performance, stability, and control. It also branches out to expose the students to basic concepts of flight safety, crew resource management and other aviation-oriented topics.

McGill, as a top University in the world with more than 11 years ranking 1st place in Canada, offers a Master's program in Aerospace Engineering, and our faculty conducts ground-breaking research in collaboration with the vast Montreal aerospace industry. There are over 40 faculty members at McGill who concentrate on aerospace-related research with over \$20M per year in aerospace research programs and over 4,500 students in the Faculty of Engineering at McGill. With the new undergraduate aerospace minor making its debut this academic year, our organization is more relevant than ever to support the promotion of the domain in our community.



## B. THE MISSION

The McGill Aerospace Design Society is a shared platform for aerospace engineering design teams at McGill. This allows students to take the initiative of creating a new aerospace project without undergoing all of the difficulties of starting a new team from scratch. With the McGill Aerospace Design Society, motivated students are provided with funding, resources, tools, shared experience and leadership to turn their passionate group into a high-performance team capable of undertaking their aerospace-related challenge. AERO McGill takes pride in its work culture and its obsession with perfecting the implementation of effective leadership at all levels of the society.

At the moment, we eagerly hope to expand the current group of design teams to include the AIAA competition in the future, as well as any other stimulating challenges that are brought forth by students. All project teams bear the AERO branding of the society, projecting a unified and collaborative image to the McGill community at large.





## C. THE PROJECTS / COMPETITIONS

### SAE AERO DESIGN MICRO:

AERO McGill will once again be competing in the International Micro Class edition of the SAE (Society of Automotive Engineers) Aero Design Series in April 3-5th, 2020. The objective is to design, build, and assemble a hand-launched, remote-controlled, fixed-wing aircraft. Points are earned for carrying heavy payloads while minimizing the weight of the aircraft. (Team picture top right)

### SAE AERO DESIGN ADVANCED:

AERO McGill will compete in the International Advanced Class of the SAE Aero Design Series. The objective is to design, build, and assemble a remote controlled or semi-autonomous aircraft. The mission is to fly the aircraft around a course and drop multiple packages on target in a designated drop-zone. Points are earned for how close to the “bullseye” the packages hit. Different from many other universities, the entire structure of the aircraft is designed, manufactured, and assembled by students. (Team picture at right)

The official site of the SAE Aero Design Competition (with two classes above) is: <https://www.saeaerodesign.com/> and site with detailed information about date/sponsors is : <https://www.sae.org/attend/student-events/sae-aero-design-west>

### SOLAR UAV TEAM:

Since 2017, a team has been working on producing a non-competition solar powered aircraft. This continuous research project with academia aims to manufacture a fixed-wing UAV capable of extended flight for the purpose of large-scale surveying. This concept is made possible by an array of solar panels spanning the wings providing constant power to high energy density





## AERO MCGILL DRONES:

After earning three awards in the 2019 competition year, AERO McGill will continue competing in the Unmanned Systems Canada competition in May 1st, 2020 and Micro Air Vehicle (MAV) Challenge in May 18th, 2020. The objective is to design, build, and assemble a highly automated Unmanned Aerial System (UAS) fitted with Unmanned Aerial Vehicles (UAV) such as multiple fixed-wing or multirotor aircraft. The competition's scenario is changed annually. However, the vehicles must have a total weight of less than 10kg and be capable of completing a variety of ground oriented tasks such as drone delivery, agricultural survey, and facility inspection.

The USC competition is held annually for more than 11 years to promote and develop Canadian expertise and experience in unmanned and remotely piloted vehicle systems technologies at the university and college levels. In the 2019 competition, the three awards won by AERO McGill are: 2nd Overall Place, 3rd Design Paper (Phase 1), and Judges Award. The introduction page of the competition is: <https://www.unmannedsystems.ca/home/students/student-competition-details/>

The MAV challenge is held by Vertical Flight Society (VFS), which is the world's only international technical society for engineers, scientists and others working to advance vertical flight technology.

The official site of Vertical Flight Society is: <https://vtol.org/> and the competition page is <https://vtol.org/mav>





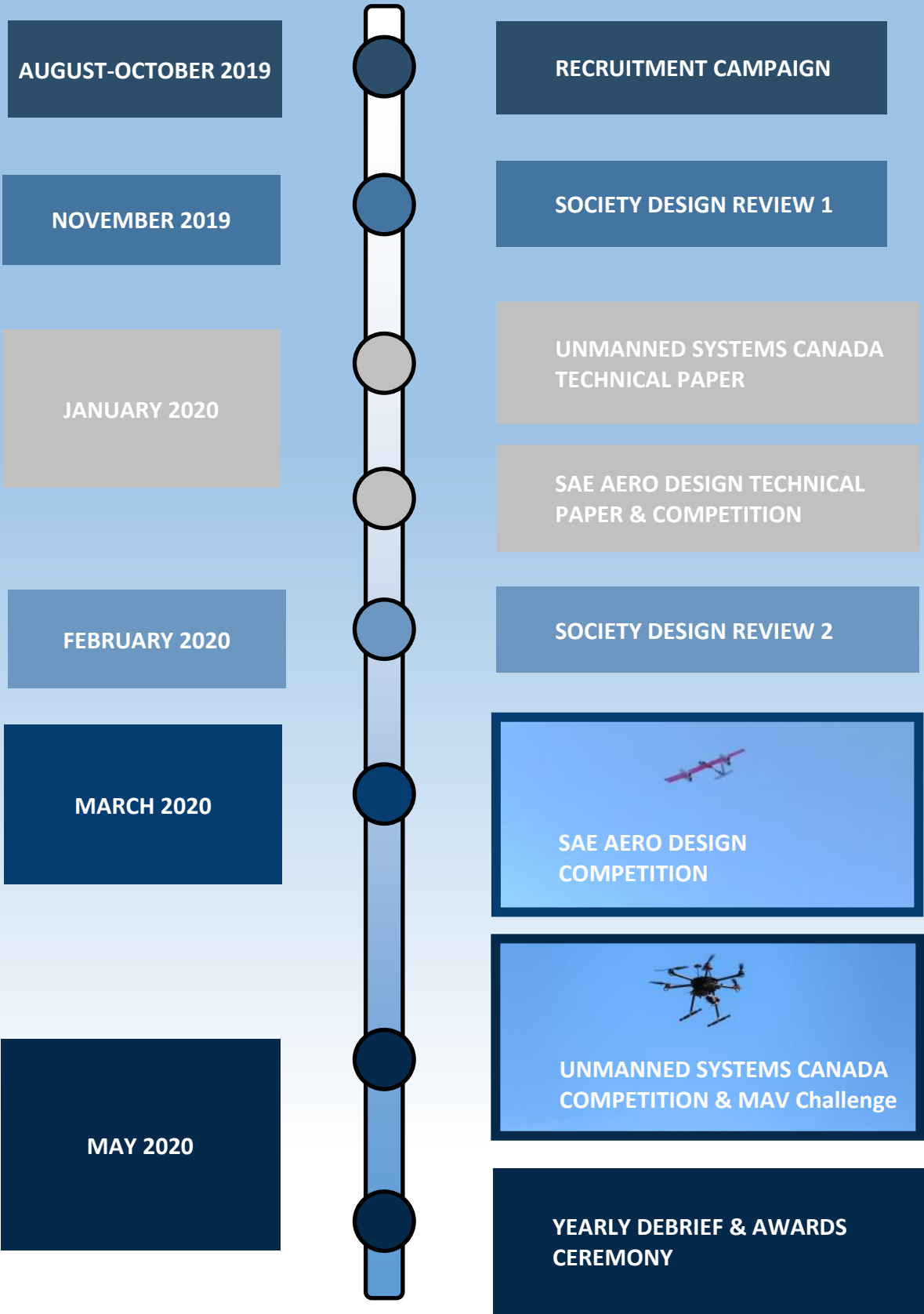
## E. THE REACH

Our students are active community members and participate in national and international events. From promoting aerospace in local high schools to attending the Paris Air Show, our students roam their surroundings in the quest to share and nurture their passion.

Digitally, our social media presence spans Facebook, Instagram and LinkedIn. We run weekly posts on our Facebook page and Instagram accounts with our long running #FlightFriday and #TechTuesday series which cater to the interest of the community. As of August 2019, our Facebook posts have reached a cumulative 20 000 members since the beginning of the year. After the successful USC competition 2019, the team members were interviewed and reported by local media: <https://montrealgazette.com/news/local-news/game-of-drones-high-flying-mcgill-ets-students-rule-the-air>

























We proudly wear our t-shirts wherever we go, conducting ourselves as ambassadors of the STEM domain. You can be assured that the visibility this team offers to your company will be far reaching and carried by individuals of the utmost dedication.

F. THE TIMELINE





# SPONSORSHIP TIERS

	DIAMOND	GOLD	SILVER	BRONZE
	2500 C\$	2000 C\$	1200 C\$	600 C\$
Company logo on competition aircraft				
Access to student CV database				
Constant article updates mention on Social Media				
Independent section on social media and website				
General Communications				
Logo on team t-shirt and website				
Personalized framed thank you certificate				
Social media recognition				



# CONTACT



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# AERO

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