SUNSTANG NEWSLETTER

CONQUERING THE ROAD ONE SOLAR CELL AT A TIME.

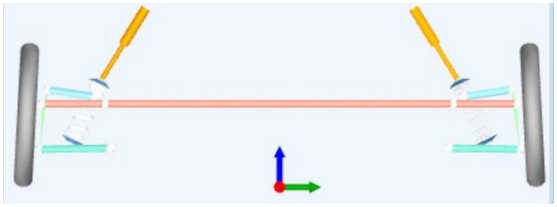
"The success of our efforts depends not so much on the efforts themselves, but rather on our motive for doing them."

QUOTE OF THE MONTH

DYNAMICS UPDATES

Over the month of June, the Dynamics team has made significant progress on developing and finalizing Sunstang 2022's suspension system. The team has settled on a double-wishbone style suspension made of carbon fiber inspired by Formula 1 vehicles. We are proud to announce that Sunstang will be one of the only solar racing teams to develop a carbon fiber suspension for use outside of the Formula 1 track.

The Dynamics team has also implemented the use of a simulation software called Optimum G to analyze the suspension design more in-depth than previous years. Optimum G has facilitated the calculations related to designing a new suspension system and allows the team to work more efficiently while ensuring a high-quality design. A preliminary 3D model of the suspension has been developed (see below) and the team is excited to move forward with force analyses based on the finalized design.



For the next portion of Sunstang's summer work term, the Dynamics team will focus on component design and materials selection/development.

INTRODUCING: STRATEGY TEAM

A new engineering team has surfaced this year to facilitate the often *difficult* decision-making process that comes with designing and competing with a brand new vehicle.

In past years, each lead has made their own decisions after presenting their idea to the rest of the team once or twice. However, the engineering team has never been able to thoroughly analyze how these decisions will impact the end result - in this case, Sunstang 2022. Since this vehicle is intended to be both competitive and reliable, a well-thought-out plan is necessary to achieve these goals. Through strategic analysis via calculations, scenario assessment, and various discussions, the decisions made will now be *purely* based on facts rather than gut feelings and minimal evidence.

The way this team will operate is whenever there exists a crossroads (i.e. multiple design options for a certain component of the vehicle) the team will step in and analyze which option will result in as little complication as possible between the subsystems of the car while ensuring significant improvements to the performance of Sunstang 2022.

Furthermore, the Strategy Team will be responsible for developing a competition strategy as well. With any type of competition, *how* you compete is equally as important as what you compete *with*. The Strategy Team will analyze our competitors, road conditions, weather conditions, and any other external factor that comes with racing Sunstang 2022. Short-term, this analysis will help to improve our subsystems while we are still in the design phase and long-term, it will ensure our vehicle places higher at competitions.

VIRTUAL RECRUITMENT PLANNING

In light of the COVID-19 pandemic, the Operations Team has been facing the difficult challenge of planning online recruitment for new Sunstang members. Multiple meetings have been held to plan for various potential scenarios and outcomes for the year to come. The number of students that will be returning to school this fall is still unknown and hence, the team is preparing for the worst but hoping for the best.

Some options that are being explored include Zoom meetings scheduled on different days/times to accommodate as many people as possible, live-streaming Q&A sessions, providing a virtual tour of the shop, or creating videos that showcase Sunstang. Having information sessions in-person would be the ideal scenario, but the Operations team will continue to research new effective methods to acquire members in an online format. More updates will be provided later this summer as we receive more information regarding Western's plans for the Fall semester.