

# MTAA SUPER SOL INVICTUS NEWSLETTER

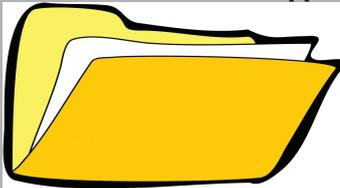
July 15, 2019  
90 days until the race

## Official Team List Released



The official team list for the 2019 Bridgestone World Solar Challenge has been released. With a record breaking 53 teams from 24 different countries having qualified for the event, the MTAA Super Sol Invictus team is excited to represent Canberra and Australia in pursuing a top 10 finish.

## Official Documentation Approved



The first official documentation for the race has been successfully submitted! In addition to the general specification of our solar car, this also details the electrical system, solar collector as well as our energy storage. Our next key deadline is the 26th of July which focuses on our safety plan, battery incident plan and marketing.

## Save the Date



We have confirmed the dates of our next two major events, with the Grand Unveiling (build completion) of our car on the 5th of September and the Send-Off Event on the 24th of September. Invites will follow shortly, but be sure to clear your calendar for the evenings of these days.

## Human Power vs Sun Power



For our Bush Week event on the 24th of July we will be pairing up with one of our sponsors, ANU Sport, in an epic battle between humans and the sun. Over the course of the day we will be seeing if the university's finest rowers can produce more power than that of our solar car! Head down to ANU Market Day at the ANU Sports Hall to contribute to the effort.



As with most of our solar car, the design criteria of the suspension is dominated by the need to optimise the aerodynamics of the vehicle. While vehicle dynamics are still important, the effect of reducing additional drag on the vehicle far outweighs the trade-offs to handling that are necessary to make.

This is the reason why double wishbone is so attractive to solar cars, as it allows the suspension to be packaged far more tightly than in a standard car. Where a conventional road car suspension would require a box large big enough for a cubby house, our suspension could fit within 2 shoeboxes placed side-by-side. This helps us to drastically reduce our aerodynamic drag by decreasing the overall size of the car.

The aerodynamic gains however, don't stop at tighter packaging. Our suspension system is optimised to keep the ride height at 50mm (the minimum allowable by the regulations) and keep the floor of the car as flat as possible, both when cornering and when bumps occur. This helps to keep the aerodynamic profile of the car both stable, consistent and predictable for our drivers.

The brand new MTAA Super Charge 2 features an all new double wishbone suspension, a step forward in both performance and weight on the previous fork and trailing arms hybrid.

Suspension is a key system in any car, as it provides not only the interface between the driver and the road but also the way in which all forces are transferred through the road into the car. While double wishbone suspension is quite common in racing applications due to performance, it is great in our solar car for a few other reasons.

This week has been busy at MTAA Super Sol Invictus. From buying materials for suspension through to manufacturing jigs for use in assembling our solar panels, the team is preparing to hit the ground running when the carbon fibre chassis arrives. We've also had an exciting time in social media, with the first of the Technical vs Business Team Tomato Trials. Check out our YouTube channel and stay tuned for even more exciting content.

~ Avik Mason, Project Lead ~



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