



MTAA SUPER SOL INVICTUS NEWSLETTER

August 19, 2019

55 days until the race

New Sponsor: Evergen



Evergen has now signed as a sponsor! Founded with a vision of lowering the cost of energy to all Australians, Evergen is a new breed of home energy company that sells and manages intelligent solar power services developed by CSIRO. Thank you to Evergen for supporting us.

Chassis Arrival



Some of our team members drove to Sydney on August 8th to collect our new chassis, which is now in our workshop! This is the base framework of the car which supports its structure and use. Its looking very fast, light and rigid.

Battery Box Completion



The battery box is nearing completion while the Tech Team works hard to assemble the circuit boards. The box itself is in the process of being finalised so it can house all of the battery cells. So far it is looking fantastic and we are on the way to a well designed and developed battery system!

National Science Week



Last week was National Science Week, where our Outreach Team ran a stall on Wednesday at the Science Mayhem event in Kambri. Delicious caramel slices, 3D printed keychains and information sheets about the team and car were given out to celebrate the upcoming race.



Car Chassis

The chassis is the structural and aerodynamic framework of the solar car, making it a core part of the building process. It also contains impact structures which provide safety for the driver. Our sponsor Sydney Composites has several years of experience building race cars and has been extremely busy assembling the chassis for the MTAA Super Charge 2 using state of the art manufacturing techniques.

The design of the chassis is very important because its size and shape determines the amount of drag force pushing against the car. This means it determines how fast we can drive under the power of the sun. Every single force in the car (aerodynamic, weight, suspension, etc.) gets fed through the chassis.

The MTAA Super Charge 2 chassis is built with carbon fibre, an update from our 2017 car which had a steel subframe. Carbon fibre is five times stronger than steel and one third its weight. The material's structure gives it high tensile strength, chemical resistance and temperature tolerance. These properties make it very popular and ideal for solar race cars. Using this material, we have been able to make the new car 100kg lighter than the previous one and allowed for 35% drag saving.

The structural parts of the chassis are the safety cell (a feature that protects the driver in the event of an accident) and some ribbing that runs up the centre. These contain a honeycomb shaped core which makes the ribs exceptionally stiff.

Building the chassis involves creating a mould from a 3D computer design and covering it with layers of carbon fibre and epoxy resin. The mould is then baked in an oven until it sets.



The last two weeks have been exciting, having finally gotten the chassis for the MTAA Super Charge 2 delivered from Sydney Composites. Thank you to Aiden and Lily for taking the time to collect it! Since getting the chassis we've also had our sponsor, AO Graphics, in the workshop diligently applying the decals and sponsor logos in preparation for the Build Completion Event. The rest of the team is hard at work finalising preparations for the big race and preparing the remaining components of the car for assembly. Stay tuned for more exciting updates!

~ Avik Mason, Project Lead~



anusolinvictus.com



[@solinvictusanu](https://www.facebook.com/solinvictusanu)



MTAA Super
Sol Invictus



[@solinvictusteam](https://twitter.com/solinvictusteam)



[@anu_sol_Invictus_solar_car](https://www.instagram.com/anu_sol_Invictus_solar_car)



MTAA Super
Sol Invictus

MTAA SUPER
SOL INVICTUS

