ASCEND - DEAKIN UNIVERSITY SOLAR CAR TEAM

TEAM OVERVIEW
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CAR NAME
ASCEND

UNIVERSITY
DEAKIN UNIVERSITY

LOCATION
AUSTRALIA

WSC CLASS
CSIRO CRUISER

STATIC SCRUTINEERING
PASS

DAILY EVENT RESULTS

	Arrival time	Control stop	Kms from Darwin
Day 1	Oct 22 13:31:48	Katherine	317
Day 2	Oct 23 15:34:11	Tennant Creek	985
Day 3	Oct 24 15:51:22	Alice Springs	1493.486
Day 4	Oct 25 10:02:25	Erldunda	1691.663

HOW MANY TIMES HAS YOUR TEAM PARTICIPATED IN THE EVENT?

This is the first time Deakin University has entered the Bridgestone World Solar Challenge. ASCEND the Deakin University Solar Car Team is the first Victorian team to complete in a decade.

WHAT IS THE DESIGN PHILOSOPHY BEHIND YOUR SOLAR CAR?

ASCEND was designed inline with electric cars in the current market – but with a twist.

Deakin students were challenged to not only design a vehicle for the BWSC 'Cruiser' division but a vehicle they would like to drive daily that is as sustainable in design and construction – a brief taken very seriously.

The result is an aerodynamic car capable of traversing central Australia's rugged terrain that looks and feels as comfortable in the outback as it would on the city street. Carefully balancing aesthetics, innovation, efficiency, and practicality to

substantiate the potential for solar-powered cars in the future.

WHAT IS UNIQUE ABOUT YOUR SOLAR CAR?

Students used additive manufacturing, commonly known as 3D printing, to construct complex automotive parts not easily produced through traditional manufacturing techniques.

Body panels were printed in nylon powder eliminating the need for wasteful moulds. Multi-Jet Fusion technology was used which provides strong performance and production rates much faster than traditional 3D printing technologies.

Composites of basalt fibre and eco bio-resins were used for the car doors and stringers that reinforce the body panels adding strength and stability to the design!

Partnering with ACCIONA Energía has offered an amazing opportunity for students to engage with industry throughout the design process.

WHY DOES YOUR TEAM VALUE PARTICIPATING IN THE BRIDGESTONE WORLD SOLAR CHALLENGE?

Participating in the BWSC is an opportunity to showcase Deakin's strengths in sustainable innovation through additive manufacturing, engineering design and product development, and to provide exceptional learning experiences.

To date, the ASCEND Solar Car Project has engaged more than 1000 students across Deakin representing disciplines from mechanical, electrical, and aerodynamics engineering to information technology, business, marketing, and communication. Participation in this real-world project gives students hands-on experience and an embedded knowledge of how the industry works.

For our partner, ACCIONA Energía, building a competitive solar-powered vehicle is an opportunity to substantiate the power of renewable energy in innovative projects.

WHAT IS THE ONE THING YOUR TEAM IS LOOKING FORWARD TO WHEN YOU VISIT AUSTRALIA?

Students are looking forward to testing their resilience and their solar car ASCEND on the epic journey from Darwin to Adelaide. They hope travelling through the Australian outback with peers who have worked together to overcome the challenge of building a competitive solar-powered vehicle will build life-long friendships and memories.

2023 TEAMS

2: UNIVERSITY OF MICHIGAN SOLAR CAR TEAM (TEAM/VIEW/407-UNIVERSITY-OF-MICHIGAN-SOLAR-CAR-TEAM)

3: BRUNEL SOLAR TEAM (TEAM/VIEW/371-BRUNEL-SOLAR-TEAM)

6: TOP DUTCH SOLAR RACING (TEAM/VIEW/404-TOP-DUTCH-SOLAR-RACING)

7: TEAM SONNENWAGEN AACHEN (TEAM/VIEW/401-TEAM-SONNENWAGEN-AACHEN)

8: INNOPTUS SOLAR TEAM (TEAM/VIEW/366-INNOPTUS-SOLAR-TEAM)

9: ADELAIDE UNIVERSITY SOLAR RACING TEAM (AUSRT) (TEAM/VIEW/364-ADELAIDE-UNIVERSITY-SOLAR-RACING-TEAM-AUSRT)

10: TOKAI UNIVERSITY SOLAR CAR TEAM (TEAM/VIEW/403-TOKAI-UNIVERSITY-SOLAR-CAR-TEAM)

13: TEAMARROW (TEAM/VIEW/402-TEAMARROW)

14: FUTUROSOLARE (TEAM/VIEW/380-FUTUROSOLARE)

15: WESTERN SYDNEY SOLAR TEAM (TEAM/VIEW/412-WESTERN-SYDNEY-SOLAR-TEAM)

18: UITM ECOPHOTON SOLAR RACING TEAM (TEAM/VIEW/406-UITM-ECOPHOTON-SOLAR-RACING-TEAM)

20: DURHAM UNIVERSITY SOLAR CAR (TEAM/VIEW/374-DURHAM-UNIVERSITY-SOLAR-CAR)

21: SOLAR TEAM TWENTE (TEAM/VIEW/394-SOLAR-TEAM-TWENTE)

23: HALMSTAD UNIVERSITY SOLAR TEAM (TEAM/VIEW/382-HALMSTAD-UNIVERSITY-SOLAR-TEAM)

25: VTC SOLAR CAR TEAM (TEAM/VIEW/410-VTC-SOLAR-CAR-TEAM)

27: SUNSWIFT RACING (TEAM/VIEW/399-SUNSWIFT-RACING)

28: AGNIRATH (TEAM/VIEW/365-AGNIRATH)

30: FAST - FLINDERS AUTOMOTIVE SOLAR TEAM (TEAM/VIEW/379-FAST--FLINDERS-AUTOMOTIVE-SOLAR-TEAM)

34: ITU ZES SOLAR CAR TEAM (TEAM/VIEW/385-ITU-ZES-SOLAR-CAR-TEAM)

35: UNIVERSITY OF MINNESOTA SOLAR VEHICLE PROJECT (TEAM/VIEW/408-UNIVERSITY-OF-MINNESOTA-SOLAR-VEHICLE-PROJECT)

37: GOKO HIGH SCHOOL (TEAM/VIEW/381-GOKO-HIGH-SCHOOL)

41: ANU SOLAR RACING (TEAM/VIEW/368-ANU-SOLAR-RACING)