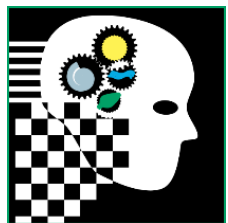
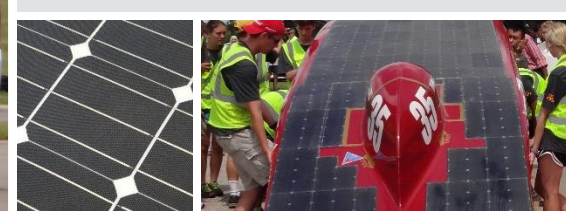
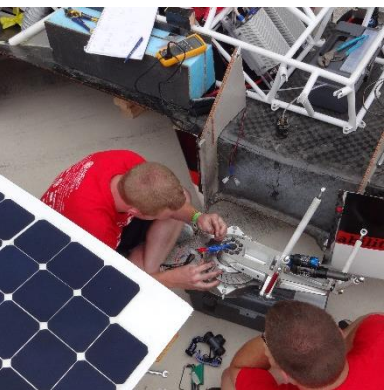


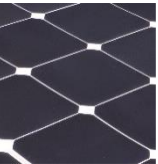


2016 Regulation Revisions



2016 ASC REGULATIONS

Revision A
February 22, 2015



BACKGROUND

This document is intended to provide advance notice to pending changes for ASC 2016.

The regulation changes presented in this are not finalized but this document is meant to provide guidance to teams to allow for design / construction efforts to continue with a higher degree of confidence.

Additional regulation changes may occur, but likely limited to lower impact items.

The initial release of the regulations will occur prior to the March 2015 workshop.



REGULATION REVISIONS

ADMINISTRATION

Registration

- Late penalties – will be stiffer for submission of reports (FSGP 2015 regs give guidance on this)

University/College Advisor

- Stricter requirements (FSGP 2015 regs give guidance on this)

Communication

- Communication protocol (FSGP 2015 regs give guidance on this)

LOGISTICS

Revisions will be made on: Penalties, Event logistics, FSGP/Qualifier operations etc.

Appendix B – seating angle will be clarified

Appendix E – mechanical report instructions will be revised



REGULATION REVISIONS

BODY/MECHANICAL

Driver/Passengers

- Cars can be designed for multiple driver/passengers. Only one person in the car during the event.
- *WSC Cruiser style cars are welcome in the ASC event. Further considerations/discussions will be held to identify how to include these cars.*

Size

- Cars will remain the same size as ASC 2014

Array Attachment

- Multiple lanyards rather than a single lanyard. (refer to FSGP 2015 for guidance)

ELECTRICAL

Array

- Additional cells will be approved for Approved List (efficiencies higher than ASC 2014 highest Sunpower C60 Bin J)
- Size will remain at 6 m² unless de-rated as per sizing equations.

Batteries

- Sizing will likely remain at weights in ASC 2014.
- Battery fan exhaust must be directly connected to the exterior of the vehicle away from any airstream that may reach the driver.

Protection Circuitry

- Restricting ability to reset BPS on-the-fly
- Power switch will be in the battery enclosure if it's a relay
- Power switch must be used to isolate the battery in the event of a BPS alarm



REGULATION REVISIONS

BODY/MECHANICAL

Number of Wheels

- 3 or 4 (this is being maintained as per ASC 2014 regulations)

Wheel Base / Width Recommendation

- >1.5

MECHANICAL

Brakes

Cars with mechanical rear brakes will need to demonstrate an ability to resist a static pull test of 15% of the car weight with only the rear brake active (front wheels elevated on dollies).

Cars with mechanical rear brakes with proportioning valves will require a means to lock-out the proportioning valve setting and have it away from the drivers reach.

Roll Cage

Front roll cage it is desired that the array be deflected upwards and away from the driver in a frontal impact. The front roll cage should be angled backwards to facilitate this ~15 deg (min).



REGULATION REVISIONS

BODY

Light Visibility

- 15 deg revised to 3 m away and 1.8 m up vertically
- Lights must be at least as bright as the reference standard (or brighter)

Driver Forward Visibility

- Driver must be able to see a point 6.4 m off the ground and 12.2 m ahead of the leading edge of the car. Will be inspected with an adjustable pole positioned 3 m ahead of the car.
- Driver visibility will be modified from 3 m from the drivers eyes to 3 m from the front and sides of the vehicle. The font size of the letters will be modified accordingly.

Seat Belt Attachment Points

- Tighter restrictions on seat belt attachment points
- Shoulder straps attachment is rearwards between horizontal and highest of 30 deg below horizontal and perpendicular to spine
- Lap belt attachment is downwards and rearwards between 60 deg and 80 deg from horizontal
- Anti-submarine belt attachment – 10 deg forward of plane of shoulder belts for 5-point and 20 deg rearward of plane of shoulder belts for 6-point belts