

**CESSNA
ONR**

**STUDENT
DESIGN/BUILD/FLY
COMPETITION**

An AIAA Student Activity

Rules Revision:

The inverted wing lift test will not be implemented at the tech inspection for the 2006 DBF fly-off

DBF Q&A #2

10 Nov 2005

Q: Does the plane have to be assembled to fit into the box (4'x2'x 1 1/4') or can the wings be taken off and fit into the box with the rest of the design?

A: The aircraft does not need to fit in the box in an assembled/flight-ready state. It may be broken down provided it can be assembled/disassembled using mechanical joints and fasteners (not glued together).

Q: Can the fuselage skin be removable for payload insertion? Can it be secured with only a Velcro strap?

A: You may use what ever type of hatch/access panel you desire to provide the ability to insert the payload(s) into the fuselage. If the hatch/panel also serves as part of the payload restraint system it must be mechanically fastened (no tape or Velcro) as outlined in the general rules. If it is not part of the payload restraint (we may ask you to demonstrate that the payload can not come out of the fuselage with the hatch/panel removed during tech if it is questionable) then it may be attached using any method that the technical inspectors deem is safe for flight. If you have questions on your specific design we advise that you send drawings/pictures for confirmation prior to the contest.

Q: Could you please describe the payload#2 (soda bottles)? Would it possible for you to tell me how much it weighs and what size it is?

A: Apparently the 2-liter soda bottle, while common in the US, is not a standard in Europe. I've include a picture of a typical 2-liter soda bottle. The bottle is Approx 300mm (11.8 in) tall and 110 mm (4.3 in) in diameter. Distance from the constant diameter region to the top is Approx 70mm (2.75 in) and the cap diameter is 25mm (0.98 in). The payload bottles will be filled with water, so will weigh approximately 4.4 lbs each.



Q: Does the 1 fuse "per motor or battery pack" restriction mean you can have two motors, two packs, and two 40 amp fuses? How does that affect the "Safety Arming Device"?

A: You may have a twin engine configuration with two battery packs whose total weight meets the battery weight limit, each with it's own fuse and motor. Both fuses will need to be removed to "safe" the aircraft for payload changes etc. You must locate the arming fuses so that a team member is able to reach both arming fuses without leaning over or coming near to a propeller.