

“Build–n–Fly” Contest Rules! (January 24, 2003)

The objective of this event is to assemble an RC aircraft at the field using only a set of materials provided by the Contest Director, and then fly a lap around the runway. The total elapsed time from start of construction to completion of the lap will determine the score, and lowest overall time wins.

1. Two or three person teams will compete. One team member will be the pilot and all will team to assemble the plane.
2. Team pre-registration two weeks before the event will be required to allow CD to purchase the correct amount of materials ahead of time. Entry fee will be collected the day of the event. One or two extra sets of materials will be purchased at the discretion of the CD, if he thinks that a team may want to enter the day of the event.
3. All teams will be given, at the same time, a kit of identical materials (see list of materials below). Must use the materials in the kit provided, and no other materials or adhesives can be used.
4. Each team can bring whatever tools desired for aircraft assembly at the field, but none of the tools can become part of the plane. Club generator will be provided for those that require it. Teams can produce, and/or bring to the event a design drawing, sketches with dimensions, and templates if so desired.
5. Each team will provide their own radio system (transmitter and receiver, and computer type radios are OK), servos, battery pack/s, and propulsion system including propeller, fuel tank, and fuel line. Motor can be electric or glow. Engines should not exceed .40 cu in.
6. Any design aircraft can be used, but must be deemed airworthy and safe to fly by the CD only. The CD will use three minutes to verify that each airplane is airworthy, in other words, every one has 3 minutes tacked on for verifying airworthiness, and it will be applied in its entirety to every time score. Safety is of the utmost importance. If the CD asks you to correct something...just do it!
7. The clock starts when the teams are given/pickup their set of materials simultaneously. Each team will be timed to completion of their airplane. When the aircraft is deemed complete by the team they will yell out complete, the CD will record the time for that team and the team will not touch the airplane again until engine startup. A maximum time of 45 minutes will be allowed to complete the aircraft.

At the end of 45 minutes all the teams will go to the flight line for timed engine run-ups and shutdowns, then restart and launch.

- 8. Aircraft will be Hand launched and must include a throttle control and shut off. The shut off must be demonstrated before launching the aircraft. Thus, the motor must be started and run up, then shut down by radio input, and then it can be restarted for the launching. Timing begins on the signal “start your engine” and stops when the one lap is completed and the airplane comes to a complete stop on the ground.**
- 9. No more than three attempts to launch and complete the lap will be made; clock will continue to run between attempts.**
- 10. The team with the lowest time to build will go first, and so on. This way everyone is watching the flight line, and it reduces the risk of uncontrolled landings without people being on the lookout. It will also be a good way to control frequencies.**
- 11. The low total time score wins for completing the plane and flying a lap. No score applies if the full lap is not completed within three attempts. Spotters at each end of runway will be used to ensure that you go the distance.**
- 12. If no team completes a circuit around the runway, winners or rankings will be determined by the shortest time, then the next shortest time, etc. to complete building the airplane.**

Bill of Materials: (may be modified at discretion of CD)

- One 24” x 36 “ 5/16” thick foam board**
- One set of hard wood engine mount rails 3/8” x 1/2” x 12” ea.**
- One set of engine mounting nuts and bolts/ washers**
- Two 1/4” x 1/2” hard balsa strips, 36” long**
- One 2” wide roll of Duct Tape**
- One small bottle of CA gap filling adhesive and accelerator**
- Double sided servo mounting tape sufficient for four servos**
- One strip of 1/8” plywood, 1” x 12”**
- Four 12” long 2-56 threaded push rods with clevises**
- Three nylon control horns with mounting screws**