



RC DIRIGIBLE RACES: REGISTRATION REQUIREMENTS, RACE RULES AND DESIGN IDEAS

Registration and Blimp Purchase Info: If you plan to participate in the RC Dirigible portion of the Imperial Games, when you register for the games (or at the very least before the symposium begins) you should contact Caelyn Nagle at caelyn_8@hotmail.com and provide the name of your group, the name of your dirigible, and if you know it yet, information regarding your transmitter frequency. There are several kinds of RC transmitter/receiver setups available, depending on the manufacturer you could have a standard 27Mhz, a 49Mhz, an IR (Infra-Red) transmitter, a Bluetooth or Wi-Fi transmitter, and if you build your blimp with hobby grade electronics, it could be a 2.4 Ghz transmitter or a multi-channel 27Mhz or 94Mhz system. This is IMPORTANT. If you have the same frequency (and/or channel) of another participant, you may not be able to race against them. If you register before you purchase your RC Blimp, be sure to let us know **as soon as you have your Blimp**, what frequency you are flying. Only with as much transmitter frequency diversity as possible, can we have an exciting multiple airship race.

As dirigibles register for the races, a list of those dirigibles will be added online showing the frequency(ies) they will be using, so you can plan your RC Dirigible purchase accordingly.

Buying or Building an RC Blimp: When it comes to pre-made/ready to fly blimp kits, currently all that seems to be available is 27Mhz. They can be purchased from Amazon, or directly through a distributor called <http://rectoys.com>. These are by a company called Dragonfly Innovations, but there may be one or two other brands to choose from for ready to fly indoor RC Blimps. It may take some Google expertise to find them.

Your other choices are to either build your own from “scratch” using hobby grade RC electronics, or to use some other flying toy as a “power plant” and build it into a custom helium lift vessel. (Both were done at the last Symposium) There are flying toys that have multiple propellers for control that with a little engineering can be made to provide steering and elevation control to a balloon based airship.

Understand that ONLY airships with a helium based buoyancy mechanism are allowed in the races (for spectator safety, and for obvious stylistic reasons). We don't want helicopters or airplanes “falling with style” into the tops of people's heads.

Purchasing Helium: At the time these rules were last edited, Helium is in short supply; at least helium for purchase at party stores is in short supply. Make sure you look for and purchase your helium tank well before the Symposium.

PLEASE, if you find ANY other source for ready to fly RC Dirigibles/Blimps that meet the size specifications below, and come in something other than 27Mhz...please share this knowledge with the community to help with dirigible frequency diversity. ☺

DIRIGIBLE DESIGN COMPETITION:

There will be a contest for the best design/modification of a stock RC Blimp, or an RC Blimp built from scratch for those that are more adventurous and technically capable. We want to see you make these very modern looking RC toys look as steampunk or Victorian as you can! Due to the static nature of the design competition, you don't have to worry about transmitter frequency for this part of the competition, as you will not need to fly with other airships to meet the design competition requirements. The rules for this part of the competition are simple:

1. Your Dirigible must meet all the same dimensional requirements as those used in the races.(see below)
2. Your Dirigible must be capable of lighter than air flight, and must be able to navigate. (or at least try to navigate)
3. Your Dirigible does NOT have to take part in the races to be entered in the design competition; it just must be CAPABLE of Remote Controlled flight.
4. If you design any kind of weapons into your dirigible, they must not be capable of causing injury to a person, either due to inadvertently or intentionally being in the line of fire, or by being dropped on accidentally due to a malfunction. No weapons may be used in the RACES, they may only be used as a design element, demonstrated in the design competition*.
5. Your Dirigible must have a name.
6. Victory Conditions: The design competition will be judged by an objective panel to be chosen from attendees of the event that have no ties to the competitors. The design competition takes into account engineering, architecture and artistic design.

DIRIGIBLE RACES:

The Dirigible Races will be taking place in the biggest available room in the hotel/convention center. You can expect a ceiling height of 14 feet or less. Chandeliers may hang lower than that so there are obstacles in the potential flight path. This means the race could consist of a navigation course and/or a simple race around the periphery. Due to the height of the room, we have made a restriction of the physical dimensions of your dirigibles, but we believe this size is well within any reasonable RC airship design on this scale.

1. **Size:** Dirigibles should be no longer than 72 inches from nose to tail (following direction of travel). They should be no wider than 72 inches. They should be no taller than 72 inches from

gondola to the top of the balloon(s). Please remember these aren't a target to shoot for. An airship that's a 6 foot cube or sphere isn't going to fly well in a room with 14 foot ceilings. ☺

2. **Type:** All Dirigibles should be of helium filled/lighter than air type. No hot air dirigibles, flammable gas dirigibles (no Hydrogen) or heavier than air vehicles (helicopters or airplanes) allowed. This is to keep the field competitive speed and maneuverability wise, but also for spectator and facility safety.
3. **Propulsion:** Your primary propulsion must be through electric motors and propellers (or ducted fans). Other inventive, non-volatile propulsion is allowed/encouraged. Keep it safe. If you aren't sure, ask.
4. **Weapons:** Due to the possible expensive nature of remote control dirigibles, and the amount of work that may go into designing and building one of these airships, there will be no "combat" competition at this year's symposium. However, if you wish to design some kind of working "weapons" into your dirigible for exhibition purposes (such as for the design competition), these must be disabled or removed for the races.
5. **Name:** As with the design competition, your vessel must have a name.
6. **Victory Conditions:** TBA – Due to the nature of race pairings caused by the transmitter frequency issue, victory conditions will need to be determined once we know the full number of participating dirigibles. For each race heat, the dirigible whose nose passes the finish line first will win that heat.

In Summary, we hope to see several groups enter an RC Dirigible into the Steampunk Empire Symposium Airship Races and/or design competition. Please abide by the rules listed above and if you have any questions please feel free to ask. And just remember to keep property damage liability and personal safety in mind when designing or modifying your RC Blimp.

*If two airships decide that they want to "joust", utilizing their approved weapons systems, they may do so as an exhibition event, but this combat will not be included in the competition points.