ELECTRIC POWERED INDOOR PYLON RACING FIX WING MODEL AIRCRAFT

Technical Specifications

a) Model Aircraft
Maximum weight (AUW) = 500 g
Minimum Wingspan = 18"

b) Battery
Battery is limited to 2 cells – 7.4V nominal voltage.
Type of battery allowed = LiPo / LiIo / LiFe

c) Motor
Any brushed or brushless motor below 20 grams (Not including gearbox, mount or Prop hub).
Modification of the motor is not permitted

d) Each competitor may have a spare model aircraft during the contest.

e) Any one model aircraft may not be used by more than one team, nor may roles be interchanged in a team.

Safety Rules

a) All officials (Timer/lap counters and Pylon judges) must stay behind the pilots on the competitors/piloting area.

b) Pylon judges will be posted behind the pilots, they will record any pylon cutting, flying over the piloting area or No-fly zones.
Any models straying into the piloting area or No-fly zones are instantly disqualified.

c) Any models which hit or lands on the ground is considered end of flight for that model. Any attempts to take off or retrieve the model would instantly disqualify the pilot of the downed model. Models can only be recovered after the official end of the heat or final.

d) The racecourse specification may be modified in the interest of safety.

e) The Contest director has the right to request any competitor to make a flight to demonstrate the airworthiness of his model aircraft and/or his ability to fly the aircraft around the course. If during the race, the contest director considers any model aircraft to be flying erratically, dangerously or too close as to endanger the other competitors, spectators and officials, he may disqualify the competitor from that heat or from all heats and require the model aircraft to be landed immediately.

f) Pilots are not allowed to self-launch their models at the start, they are to engage the assistance of a helper. At the end of the heat or finals, Pilots are to land their model a safe distance prior to retrieval, any pilot catching the model in mid-air will be disqualified.

g) Only 2.4 GHz radio control systems will be allowed.

Racing Course Specification

The course will be laid out as follows: the distance between the 2 pylons is 25 m.
The start/finish line is in the middle of and parallel to the 2 pylons. The course
is ten (10) laps with individual length of 50 m. Total distance length is 0.5 km. The race starts at the start/finish line. All takeoffs will be hand launched; no mechanical device will be used. The race is terminated at the start/ finish line 10 full laps later.

Helper

a) All competitors must be accompanied by one helper for reasons of safety. The helper can be the team manager, another competitor from the same team, or a third party. The pilot or mechanic of one team may act as helper in one or more teams.

b) He may release the model aircraft at the start and recover the model after the official end of the heat or final.

Officials

a) Each competitor shall be assigned officials who will function as Timer/lap counter and Pylon judges during each heat:

b) They will time the competitor's aircraft for the required ten laps.
In doing so, they will count the laps flown and advise the pilot by visual or audio means when he has completed the necessary ten laps. They will keep the recorded timing on the stopwatch until it have been entered into the competition score sheet by the Scorekeeper.

c) They will also be the infringement spotter looking for and recording any pylon cuts committed by the pilot, they will immediately inform the pilot when an infringement has been committed.

d) The Pylon marshal is in charge of each heat. He will first ensure that all competitors and officials are ready to commence. He will announce the start of the race and pilot will cruise their models around the pylons and try to hit the start line at the starting signal.

e) The Pylon marshal will stand behind the competitors and announce the start via a loudhailer.

Starting Procedure

a) The Pylon marshal will time off the starting procedure as follows:

<< 1 minute to start, Pilots please take your positions >>
<< 30 seconds to start, Pilots please launch your models >>
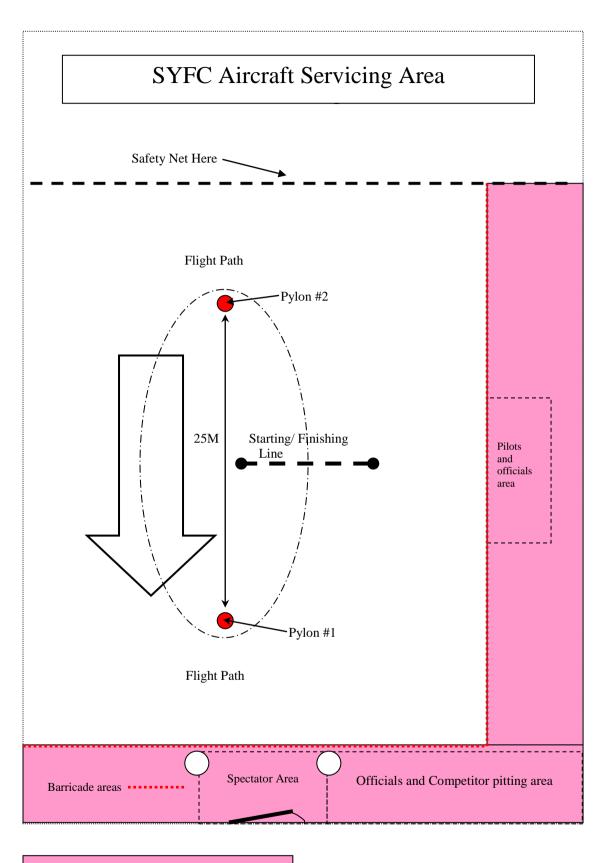<< 10 seconds >>
<< 5, 4, 3, 2, 1 >>
<< GO ! >>

b) A maximum of one minute will be allowed after identification of all model aircraft of the heat at which point the race will commence. A competitor whose model aircraft is not ready to fly at the end of the one minute period, will be disqualified from the heat.

c) No competitor shall be permitted to launch once the Pylon marshal has started his 5 seconds countdown and no time shall be given to him for that heat.

d) After the race is started, any contact between two model aircraft shall be considered a collision and the model aircraft involved must land immediately. The Contest director may allow the competitors involved, a re-fly in order to record a score for that round, provided that in his opinion the aircraft is still airworthy or the competitor has an airworthy reserve model aircraft.

e) A penalty will be incurred if the competitor's model crosses the starting line before the starting signal or cuts a pylon. Three infringements constitute disqualification for that flight.

f) The flight is officially ended after 5 mins from the launch signal or when all 3 competitors has landed.

Operation of the Race

a) A maximum of three (3) model aircrafts per heat will be allowed.

b) All laps are to be flown counter-clockwise with turns to the left.

c) At the completion of the flight, the Timer/lap counter must immediately report the competitor's timing or number of laps completed to the Scorekeeper.

d) In the event of a malfunction of the timing, lap counting equipment, the competitor(s) affected by such malfunction shall be given the opportunity for a re-fly so as to obtain a score for that round.

e) The jettison of any part of the model aircraft during flight will render the pilot to instant disqualification, with the exception that it was a result of a collision.

Scoring

a) A minimum of 2 heats will be flown.

b) The flight of each model aircraft shall be timed with electronic stopwatch or timing device measuring up to at least 1/10 second by a Timer/lap counter. Timing shall start at the Pylon marshal's starting signal.

c) The Timer/lap counter will stop his stopwatch or timing device after ten laps have been completed by the competitor. The elapsed time for 10 laps of each competitor will be recorded by the Scorekeeper into the competition score sheet. Competitors who fails to complete 10 laps will not have a timing but the number of laps they managed to complete.

d) At the completion of each heat, the Pylon judges will notify the Scorekeeper on which pilot(s) have incurred infringements. The Scorekeeper will enter the number of infringement as penalty into the scoresheets.

e) The score sheets are then processed by a scorer who will:
- for each infringement incurred, add 10% of the flyer's time for ten laps to give the corrected time;
- if three or more infringements were incurred, Disqualify the flight;
- round the competitor's corrected time to the nearest 1/10 of a second.

f) Points shall be awarded after each race as follows:
- the competitor's score is his corrected time for 10 laps in seconds to the first decimal place.
- if a competitor completes between 1 to 9 laps, his score shall be 400 – (No of laps completed x 10)
- if a competitor fails to complete a single lap, his score shall be 400
- if a competitor is disqualified, his score will indicate DQ
- if a competitor register for the competition but did not show up, his score will indicate DNS

g) On the conclusion of the qualifying heats, the top three competitors in each category (Junior and Senior) will fly off against each other in the finals.

h) The winner of the event is the competitor who has accumulated the lowest score after the conclusion of the finals (for each category)

SYFC Aircraft Servicing Area

Safety Net Here →

Flight Path

Pylon #2

25M

Starting/ Finishing Line

Pilots and officials area

Pylon #1

Flight Path

Barricade areas ••••••

Spectator Area

Officials and Competitor pitting area

No-Fly Zones