SINGAPORE YOUTH FLYING CLUB
Takes You To Greater Heights

SYFC Electric Control Line Rat Race Competition Rules WEF 2017

(Junior – Sec 1 & 2, Senior - Sec 3 to 5)

1. **Racing Circle – Consist of 2 concentric circles marked on the ground**
   a. Inner circle: 3m radius (9.8ft). This is the Pilot circle.
   b. Outer circle: 9.2m radius (30ft). This is the Mechanic Circle.

2. **ECL Rat Race Model**.
   a. Line Length: 7.62m (25ft). Measured from the axis of the control handle to the axis of the engine propeller shaft.
   b. Power Source — up to 2200kv electric motor max.
   c. Battery Power - **3 cell** Lithium Polymer — max. 11.1V / 1350 mah
   d. Electric Speed Controller — 20 - 40 amps
   e. Minimum total projected surface area — 5.5 dm^2
   f. Total maximum weight — max 400 g
   g. Electronic Timer — Required
   h. Wheels is optional.
   i. Model must fly in the anti-clockwise direction.

3. **Electric Control Line Rat Race Rules**
   a. No limit in the number of teams each school can send to compete.
   b. Best 5 timings from each school will be recorded for School Team Points.
   c. There will be Individual Winners for Junior & Senior categories respectively.
   d. Each team compromises of one pilot one mechanic. Mechanic can be shared or repeated.
   e. Each Team has 2 attempts to post timing. Faster of the two be recorded as the final result.
   f. Each heat covers a continuous flight of 50 laps. No pit stop required. Time limit 2 mins per heat.
   g. For each race, TWO teams will race together in the circuit. The pilots are to remain inside the piloting circle to fly their respective model to complete the race. The mechanics are positioned outside the flight circle to prepare model for launch at or after the signal is given by the Circuit Marshal.
   h. For safety reasons, mechanics will not retrieve the plane when the model plane hits the ground due to technical fault or upon launching, and the mechanic is only allowed to retrieve the model plane upon the vocal signal from the Circuit Marshal. Mechanics are allowed to restart the electric plane as where the model crash landed due to technicalities.
   i. A time keeper and lap counter will be assigned to each team. They are stationed outside the flight circle, near the pitting area of the model that they are assigned to. They will be responsible for the timekeeping and lap counting for assigned team
   j. The flying height must be between 2m to 5m and taking off.
   k. The race ends when the number of laps are completed and the timing taken and recorded. Or the number of laps completed at the end of the 2 mins session.

4. **Warnings and DQ - Eliminations**.
   a. Warning - Pilot applies physical effort to increase the speed of his model during the official flight (whipping).
   b. Warning - For any other flagrant breach of the rules.
   c. Warning – High flying above 5m in height.
   d. DQ – Pilot not having the handle safety strap secured to the wrist while model is in flight.
   e. DQ – Mechanic not wearing helmet and not strapped.
   f. DQ – Pilot flying dangerously.
   g. DQ – Pilot steps outside the centre circle before the mechanic has taken hold of the landing model.
   h. DQ – Jettisoning occurs or if the model is not secured that results in parts disseminating during flight.
   i. DQ – Accumulated three warning during the race. Disqualification is one attempt.
   j. DQ – Arguing with or abusing official.

5. **Protests**.
   Any members of the teams competing in a race may submit a protest to the Contest Director based on the following guidelines:
   a. Protest must be directed to the contest director within half-an-hour from the termination of the race in which the protest is concerned about.
   b. The Contest Director shall decide on the outcome of the protest. The outcome will include dismissing the protest, granting attempt, calling for a re-fly of the race.