OBJECTIVE:

To design & fabricate a manual multi-copter(Quadcopter, Hexacopter, Octacopter) which can complete given tasks.

MODEL SPECIFICATIONS:

- The maximum dimension of the vehicle(excluding the propellers) should be lesser than 50cm and greater than 25cm.
- Metal Propellers are not allowed.
- Any material can be used for construction.
- Arduino and other boards can be directly used. You may or may not use preprogrammed boards.
- Exchanging of models is strictly not allowed. Each team must have its own model.
- Throughout the event, in all the rounds only one model must be used.
- RTF models will not be allowed.

TEAM STRUCTURE:

A team can consist of maximum 5 members. Students from different colleges can form a team. Each student must have the ID card of their respective institute.

RULES:

- There will be no trial in the first & second round.
- You can have a short trial of 2 min before attempting the third round.
- Each team must have its own model. Exchanging of models is not allowed.
- You should not lift the bot to improve your position.
- Any failed attempt of landing (touch to the ground), which do not get you a point will lead to the end
- of the round.
- RTF models will not be allowed, however pre-programmed boards may or may not be used.
- Already built frames can be used.
- No restriction on material used in making the machine but metal propellers are not allowed.
- A team can use only one model throughout the event in all the rounds.
- The organizers reserve all rights to change any or all of the above rules.
- Changes will be highlighted on the website and will also be mailed to all the registered participants. However, you are suggested to keep checking the website regularly(www.effgknit.com).

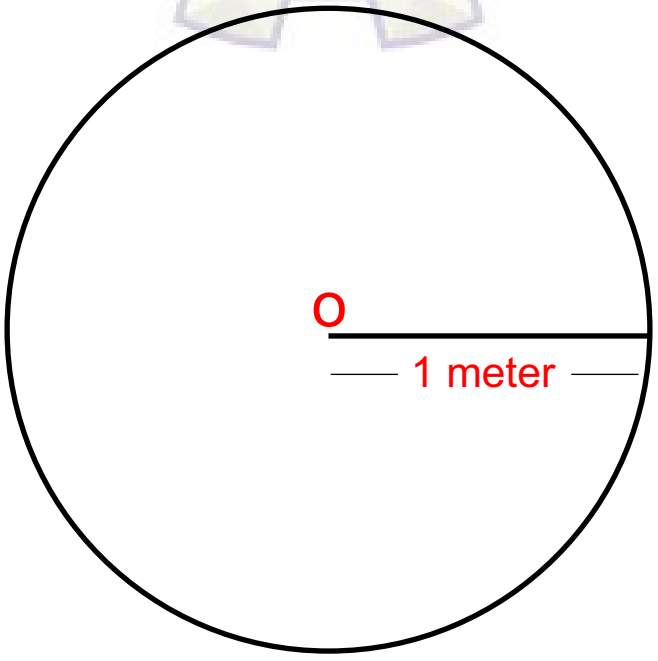
RESOURCES

- Only Two Electric Sockets (220-230V) will be provided per team for charging the batteries, radio set etc, in case you need more, you have to inform us beforehand.
- We strongly recommend you to bring your own toolkit.

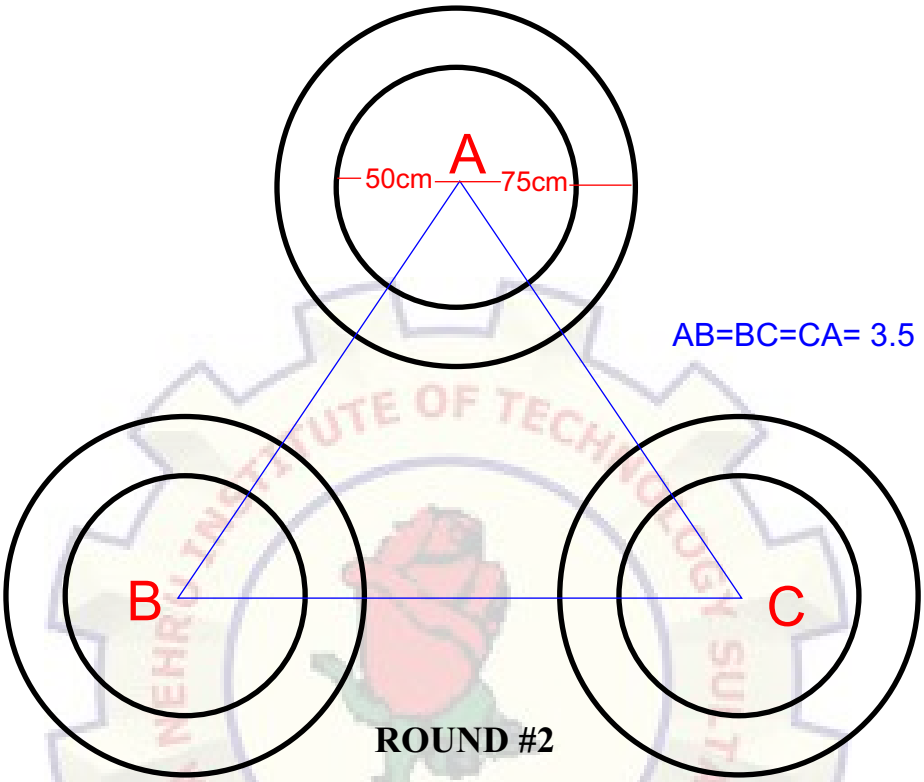
GAMEPLAY:

- The whole competition will be divided into three rounds.
- In the first round your basic skills will be tested like hovering in the specified area at a constant height from the ground.
- In the second round your multi-copter have complete the given equilateral triangle ie, starting from center of first circle, travelling in air & then landing in the next circle. Like this you have to complete one cycle & finally return to the starting point in least time.
- In the third & final round obstructions will be created between the starting & end points. By clearing all hurdles it should complete the task in minimum time.
- Points will be awarded on the basis of stability & control in the first round. While in the second & third round, your multi-rotor will judged on the basis of time for
- completion of task.
- Extra points will be awarded on the stability & pilot driving skills.
- Negative points will be awarded for any foul committed between the gameplay.
- Some of the fouls are- Damaging the arena in any manner, interaction of the multirotor with obstructions, touching the ground between the gameplay, etc.
- Extra points will be awarded for precise landing of your multi-rotor.
- Coordinators have the right to change any of the above mentioned gameplay rules. In case of any conflict, decision of the judges will be final.

ARENA

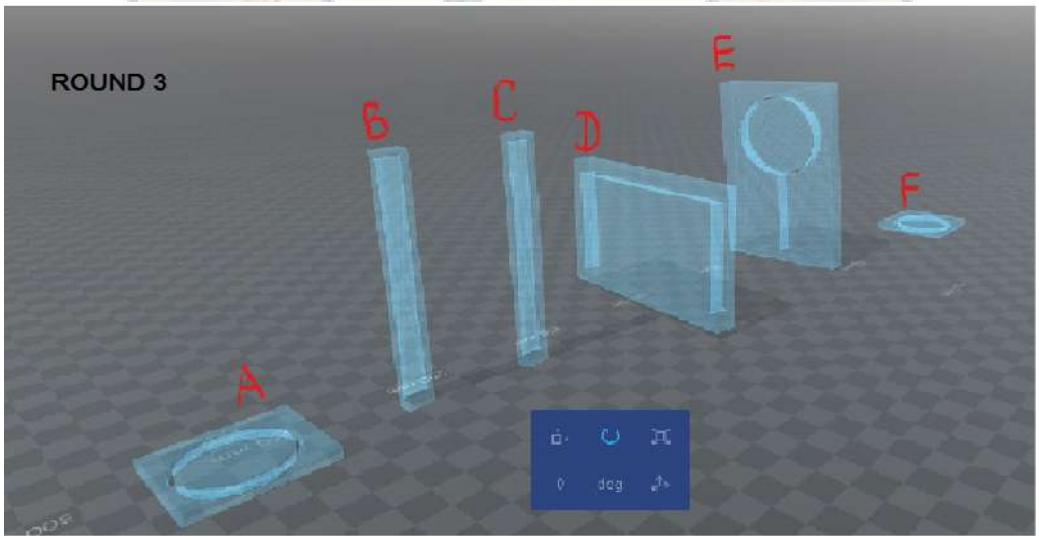


ROUND #1



AB=BC=CA= 3.5 meter

ROUND #2



A = Take off circle(diameter=1 m)
B,C = Poles(height=2.5m)
D= (height=1.5m; width=2m)
E= (Circular diameter= 1.5m)
F= Landing circle(diameter=1m)

CONTACTS

ABHISHEK SINGH(FINAL YEAR)
-70685009885
ANUP TIWARI(9451585472)
ALOK PAL(7054134148)