



Club Aeromodelling

IIT Kanpur

"Its neither theory nor experience, its curiosity, patience, hard work and determination which make something airborne."

ACTIVITIES

- Lectures and workshops on Boomerang, Styrofoam glider, Water rocket, Hovercrafts and Remote controlled planes
- Regular Flying Sessions
- Air-shows



WORK DONE THROUGHOUT THE YEAR

- Tricopter, Quadrotor, biplane, Ornithopter, 3D planes, flying wing
- Number of RC plane Flyers has been increased manifolds



ACHIEVEMENTS



- Grabbed 1st, 3rd and 4th positions in Techfest'12 IIT Bombay
- Won 1st and 3rd prize in Cruise Control, Techkriti'12
- Won 1st and 2nd prize in Hoverbots, Techkriti'12 (won by 1st yearites!)
- Won 2nd and 3rd prize in Sky Sparks, Techkriti'12
- Secured 2nd position in Eagle, Techkriti'12

SUMMER PROJECTS

- RC planes with different special features or any other type of RC aero models are taken as summer projects.
- The previous projects include Sea plane, Two stage Water Rocket with parachute, Hovercraft, F14 fighter plane, RC plane with slats and flaps, RC kite, Canard plane.
- The next few slides contain details of these projects.



Some previous projects

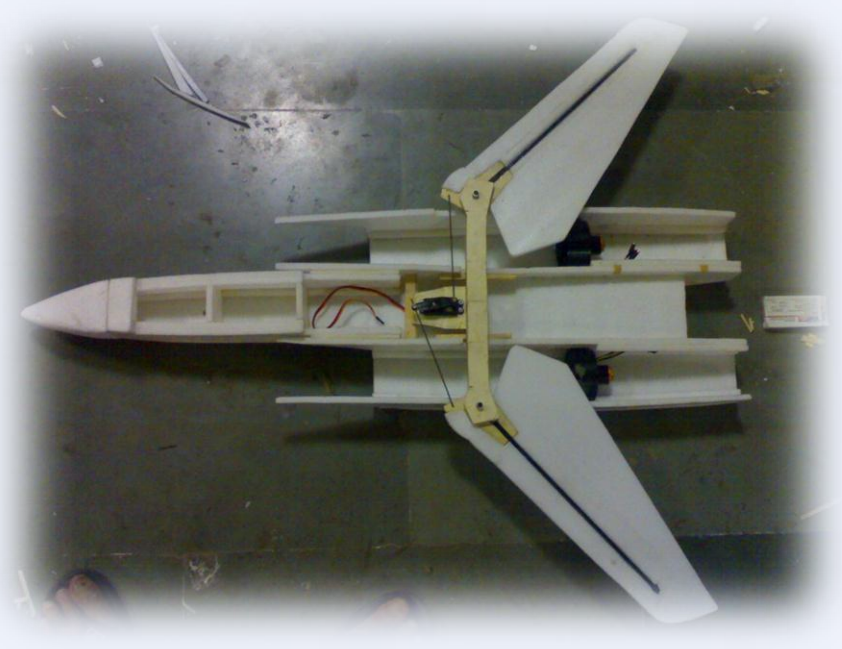
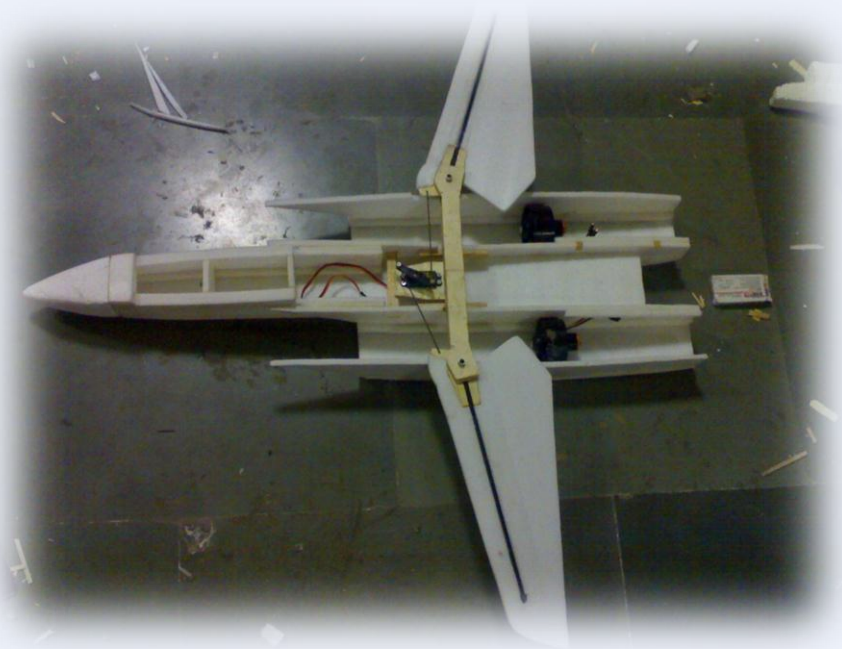


F14 TOMCAT FIGHTER PLANE

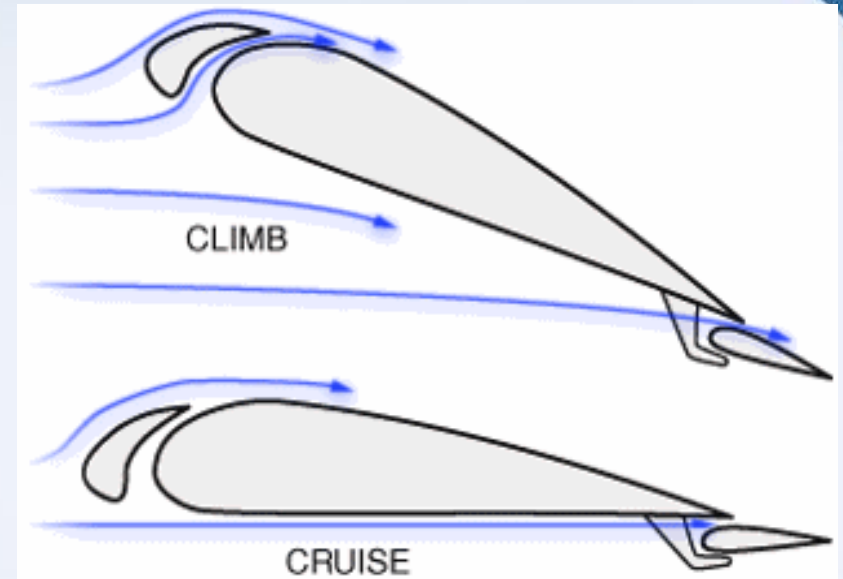


F 14 TOMCAT FIGHTER PLANE

- It uses variable wing geometry
- Power system used was similar to jet engine



RC PLANE WITH SLATS AND FLAPS



- Slats allows the wing to be operated effectively at the higher angles required to produce more lift.
- Flaps are used for smooth landing.



TWO STAGE WATER ROCKET



- Mechanical and Electrical methods were tried to achieve multistaging
- Parachute for recovery

RC KITE



Thrust vectoring was used to control its direction



SEMESTER LONG PROJECTS

- Model Rocketry and guided missile system
2nd phase
- Large scale Jumbo RC plane
1st phase
- UAV (unmanned air vehicle)
1st phase

OTHER SUMMER ACTIVITIES

- ❖ We will be conducting **RC Flying Workshop** during the summer (open participation!)
- ❖ Lectures on basics of aeromodelling and electronics

PROJECT IDEAS FOR SUMMER 2012

- ❖ We expect you to come up with some good and **innovative** project ideas.
- ❖ Visit the club to get an idea of previous projects and materials used. Take help from the senior members of the club.

SOME PROJECTS SUGGESTED BY US ARE:

VTOL



It is a vertical take-off and landing air vehicle.

RC ORNITHOPTER

- ❑ A flying machine which depicts the flying mechanism of birds i.e, flapping of wings
- ❑ The thrust and lift are both generated by the wings alone.



Submarine



It is a watercraft capable of independent operation underwater

Ground Effect Vehicles



It attains level flight near the surface of the Earth



Some other ideas are:

- RC hydrofoil boat
- Multiple object dropping aircraft
- Micro air vehicle

CONTACTS

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Visit: <http://students.iitk.ac.in/aeromodelling>

Other Senior members of the club:

Jeetesh Agrawal		9795669413
Nikhil Upadhye	B309/1	9455133142
Amit Gond		8896131735
Tushar Sikroria		9450683065
Mridul Mishra	F104/5	9453094730
Piyush Negi	343/2	9559753812
Tigmanshu Goyal	E201/9	9559753800
Anurag Kumar	357/2	9532983320
Manish Kumar	353/3	7607448702
Laxmipati Singh	319/3	9616656574
Sravan Kumar	320/3	9005452004
Poonam Raut	GH1	7607454008
Anchal Goyal	GH1	7607457002
Varsha Yadav	GH1	
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