

# Aero Innovators



**Club project spotlights :** The Aero Innovators Club continues to push the boundaries of creativity, science, and applied physics. This month, our spotlight shines on a project that merges curiosity with engineering – building a functional drone prototype using PVC and modular components.



**Aero Innovators**  
Dream It. Build It. Fly It.



**Student Voices :** “It’s exciting to see how theory becomes reality.”- Chetan

“Building this drone taught me patience, precision, and how important alignment is in engineering.”- Jasmeet

**Club Name:**  
Aero Innovators

**Motto**  
Crafting the future of flight technology

**Manager**  
BalwinderKaur

# Project Report and Skill Development

## DEEPER DIVE

Balwinder Kaur- 09/12/2025



- Project Goals:**
- Our objective is to design and assemble a lightweight, modular drone prototype using:
  - PVC Pipes for Frame
  - Aluminium Motor Mounts
  - Minimal Cost, Maximum Efficiency

- Process/ Steps:**
- **Research & Brainstorming:** Understanding drone mechanics: thrust, lift, center of gravity, aerodynamics, and power distribution.
  - **Material Selection:** Identifying light, strong, and accessible materials—PVC and aluminium provided the best strength-to-weight balance.
  - Design Drafting
  - Framework Assembly

- Skills Learned:**
- Applied Physics & Aerodynamics
  - Measurement Accuracy & Geometry
  - Engineering Design Thinking
  - Tool Handling & Fabrication

- Challenges and solutions :**
- Difficulty understanding advanced aerodynamic concepts like induced drag and lift coefficient.
  - **Solution:** Students used slow-motion animations, diagrams, and simplified models to break the concepts into understandable parts.



### Meet the Team :



Rashmeet Kaur- 11A



Gurmanat Kaur- 11A



Jasmeet Kaur- 11A



Chetan Kumar- 11A



Arham Jain- 11A



Gurpreet Singh- 11A



Brahmjot Singh- 11A

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