



Astronomy Club, IITK

Summer Projects 2021



Space: The Final Frontier

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Week 1

24th – 31st May, 2021

Overview:-

In this week we will cover the basics of rocket design and will look at the history behind it. We would look at the early designs by Dr. Von Braun and Dr. Robert Goddard and how they helped in laying the foundations for the present rocketry. We will get acquainted to the various design aspects like Aerodynamics and Structural integrity and will also see how Staging and Ascent of a rocket takes place during its launch.

Background Reading:-

You may go through the following videos and notes to get a brief idea about the topics of Week 1 before our first lecture.

- Rocket Principles
- Dr. Goddard Rocket Experiments From 29:15 onwards. This archival footage of his experiments. [Optional]
- Wernher von Braun
- Atlas Rocket Evolution
- Apollo Mission Documentary
- Apollo 11 Flight Plan