

Flying Start Challenge



AIRBUS

ATKINS
Member of the SNC-Lavalin Group

BAE SYSTEMS
INSPIRED WORK

 **ROYAL NAVY
FLEET AIR ARM
MUSEUM**

 **LEONARDO**
HELICOPTERS

MBDA
MISSILE SYSTEMS



 **SAFRAN**

Flying Start Challenge



Introduction

Lesson 1

The plan of action.....

6 lessons to help you design, manufacture and test your own glider:

1. Introduction
2. Basics of Flight
3. Lift & Drag
4. Materials & Manufacturing
5. Flight Testing
6. Summary

Fill out your Log Books as you go along:

- Keeps a record of your work
- Details important information in one place

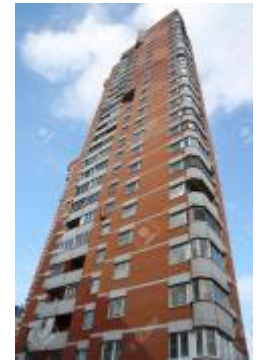
Challenge Overview

- To design a hand launched glider which can fly as far and straight as possible
- Design a poster to present your final design
- Optional Extra: Build a glider and photograph it



What is an Engineer?

Discuss in your teams which of the below pictures you think have been engineered



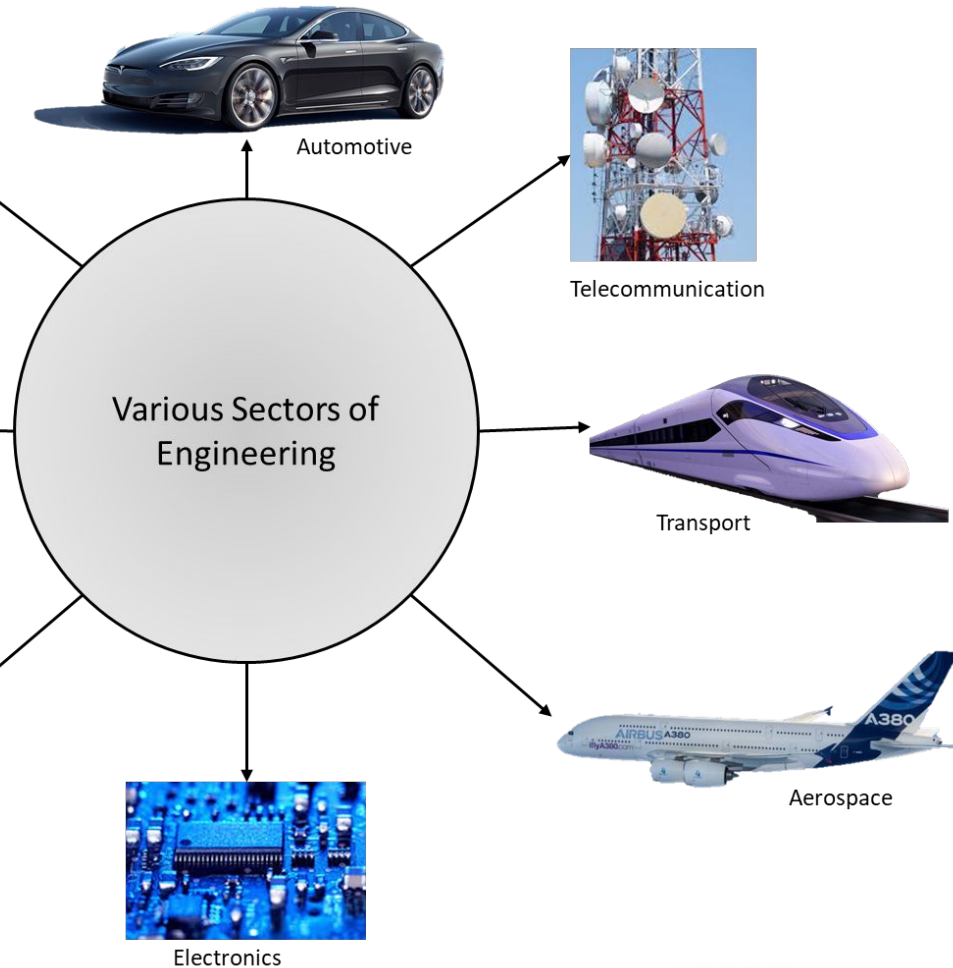
What Jobs Involve an Engineer

- Develop and produce **new and innovative products**
- Develop **new technologies** and improve existing ones



- **Manage** large-scale and challenging **projects**
 - **Teamwork!** – as team leader or member
- An Engineer can work in a wide range on roles:**

- **Electrics/Electronics,**
 - **Manufacturing / industrial production**
 - **Mechanical engineering**
 - **Research & Development**
 - **Systems**
 - **Tests**
- ... and more



Energy



Automotive



Telecommunication



Transport



Aerospace



Electronics



Oil & Gas



Construction

Reason to become an Engineer

10 reasons why it's good to be an engineer:

1. Be creative
2. Work with great people
3. Solve problems on a daily basis
4. Design things that matter
5. Variety within your job role
6. Travel
7. Make a difference
8. Never get bored
9. Love what you do
10. Change the world!!!!



Elon Musk:

He is a technology entrepreneur, investor, and engineer, who has multiple companies including SpaceX and Tesla.



Alicia Boler Davis

She is leading GM's global manufacturing operations and its manufacturing engineering and labour relations organizations.



Isambard Kingdom Brunel:

He was a mechanical and civil engineer. Brunel built dockyards, the Great Western Railway, a series of steamships and numerous important bridges and tunnels.



Tim Peake:

He is a British Army Air Corps officer, European Space Agency astronaut, a former International Space Station (ISS) crew member and author.



Hedy Lamarr :

She was an electrical engineer. Pioneer in remote controlled communications systems, bluetooth and WiFi inventions.



Neil Armstrong:

He had a Bachelor's degree in aeronautical engineering from Purdue and a Master's degree in aerospace engineering from USC.