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BASIC TRANSPORTATION



DEFINITION OF TRANSPORTATION

Means of conveyance or travel from one place to another

PROBLEMS INVOLVED

Energy economics

Environmental impacts

Regulatory problems

Safety and Vehicular issues



TRANSPORTATION MODES

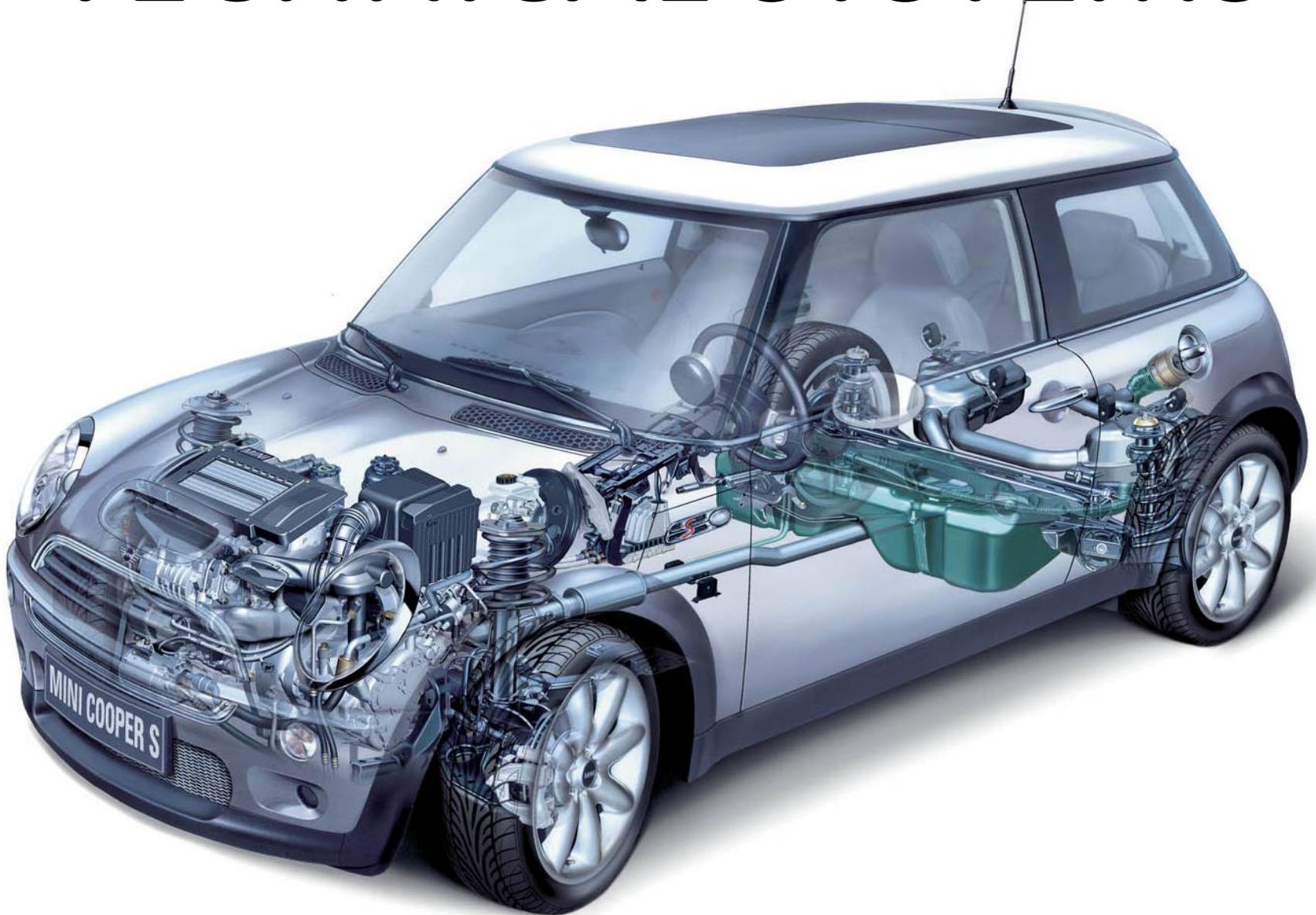
LAND - Land

SEA - Marine

AIR - Aerospace



TECHNICAL SYSTEMS



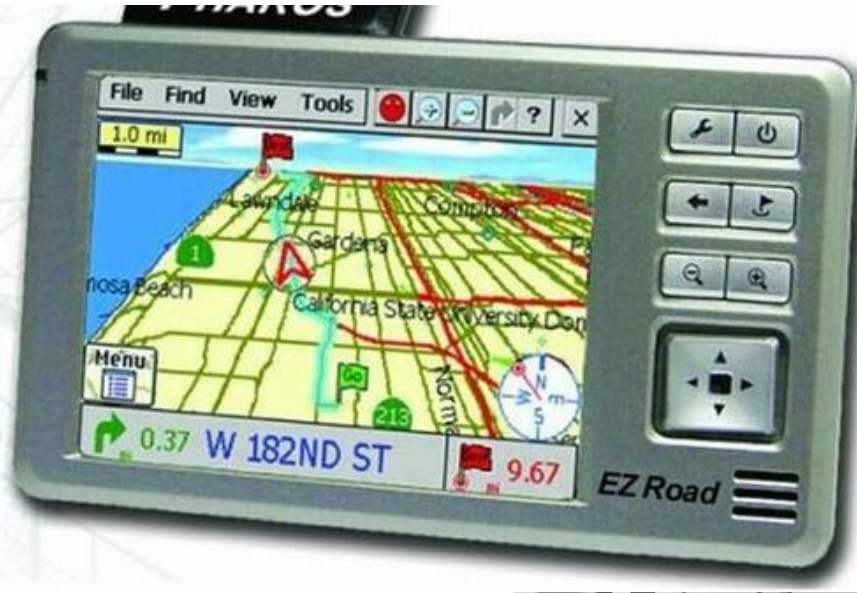
PROPULSION

What is used to move a vehicle



GUIDANCE

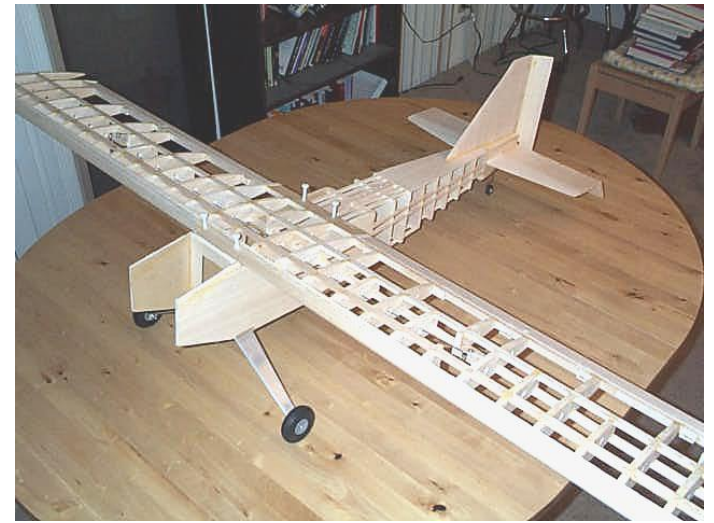
What is used to help guide the vehicle



STRUCTURE

The vehicle's structural manner

- Ultra High Strength Steel
- Extra High Strength Steel
- Very High Strength Steel
- High Strength Steel
- Mild Steel / Forming Grades
- Aluminium
- Magnesium



SUSPENSION

What provides comfort / control



CONTROL

What provides control of the vehicle



SUPPORT

What connects the systems together



WHAT NEEDS TO BE CONSIDERED???

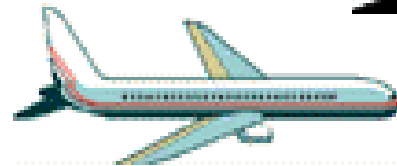
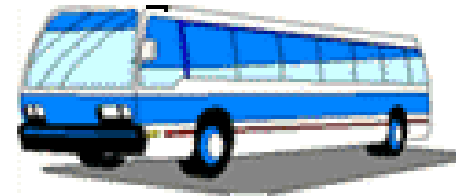
1. What is being moved?

- Its Size
- Its Shape

2. Is safety an issue?

3. Is comfort needed?

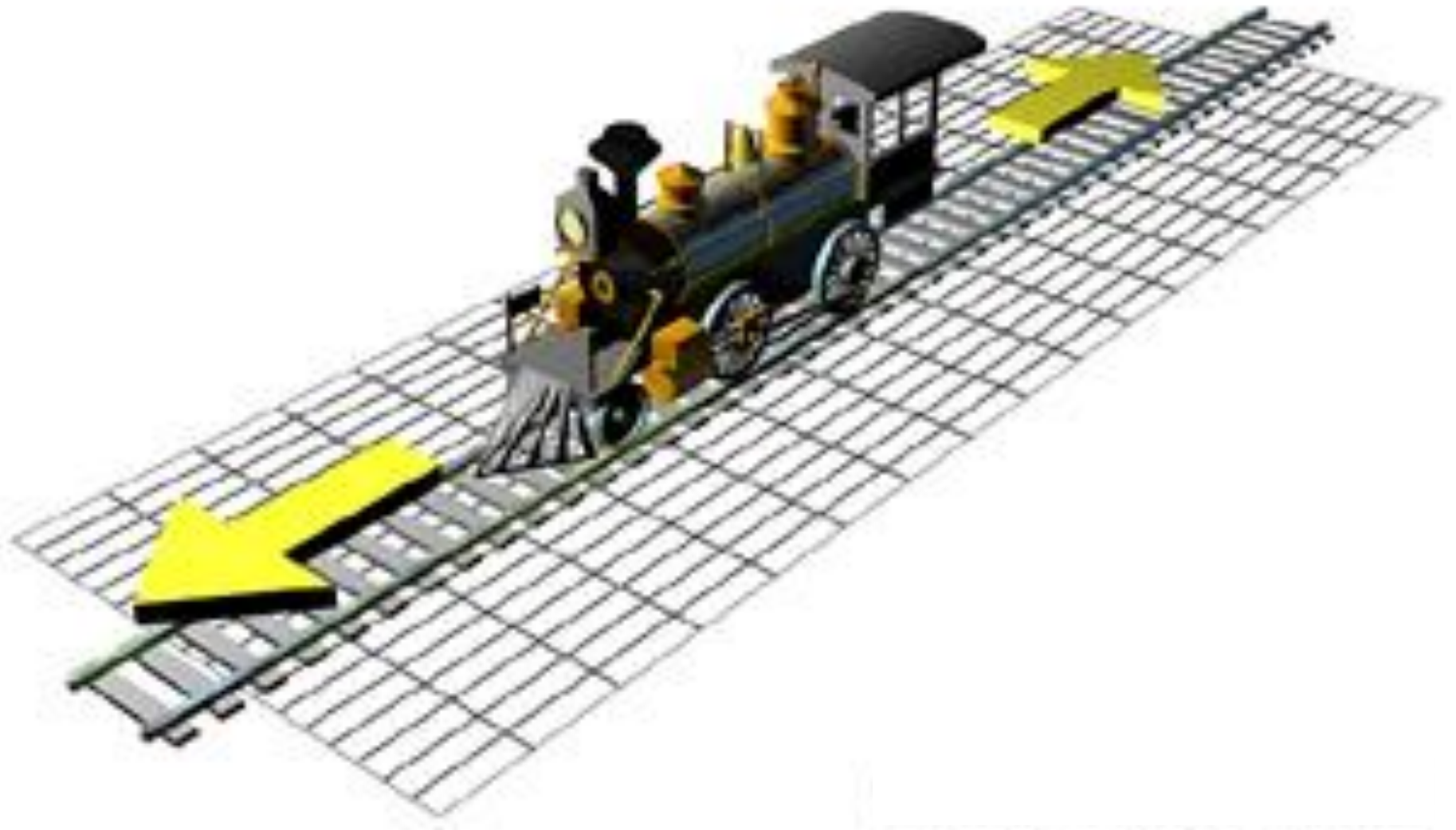
4. What time do you need it delivered?



TRANSPORTATION SUBSTRUCTURES

1. **FIXED** – vehicles goes **ONLY** where the system is
2. **RANDOM** – **GO ANYWHERE!!**
3. **STATIONARY** – system that encloses the passenger

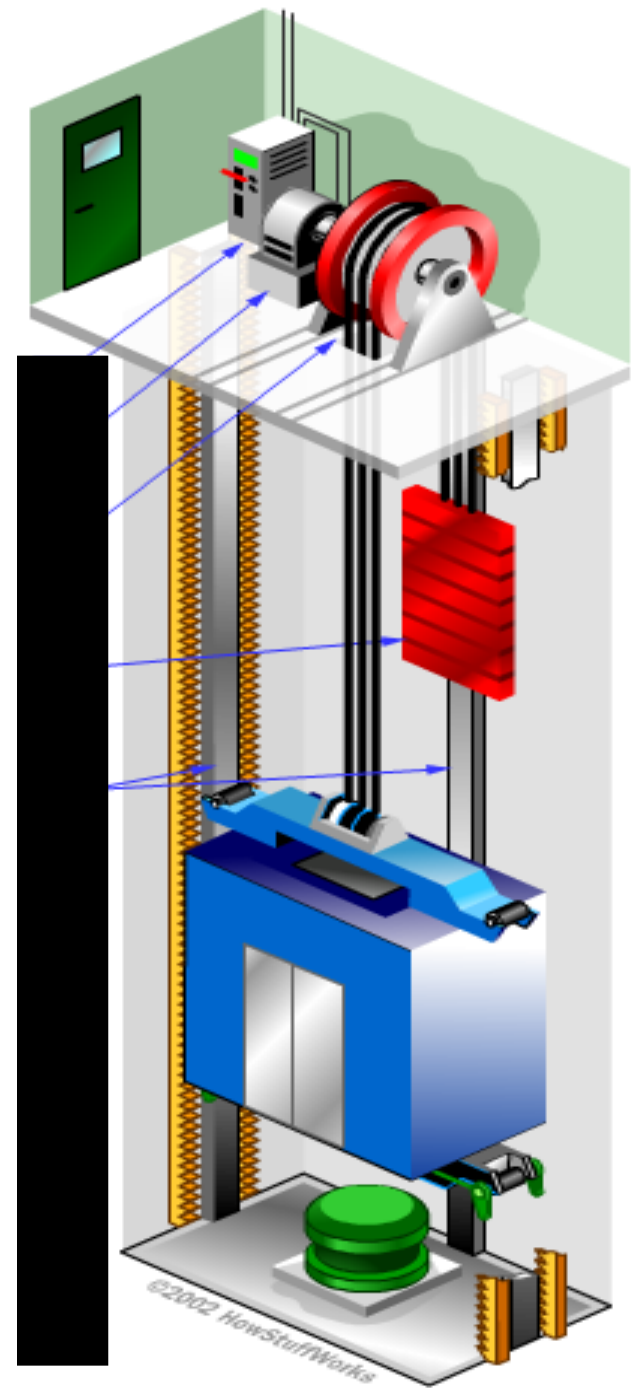
FIXED SUBSTRUCTURE



RANDOM SUBSTRUCTURE



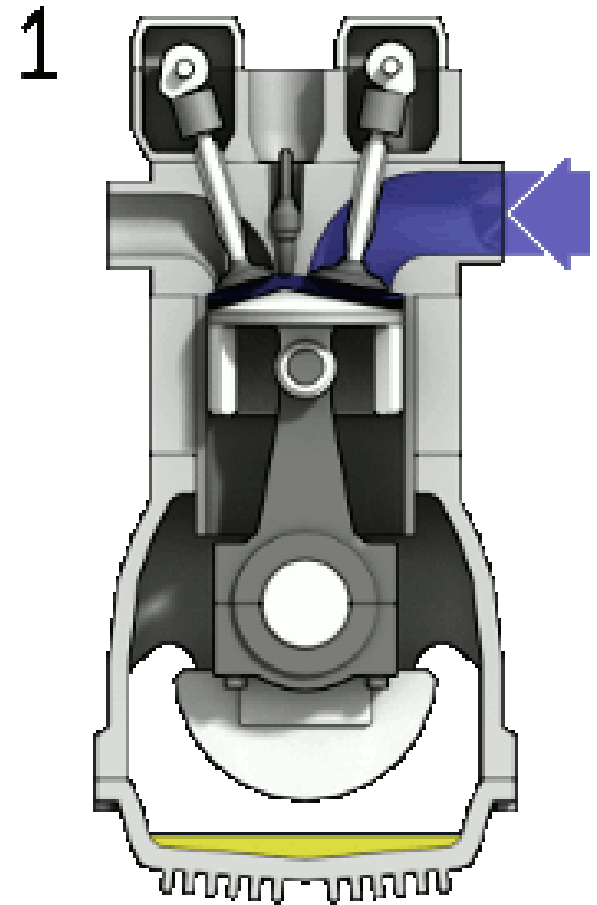
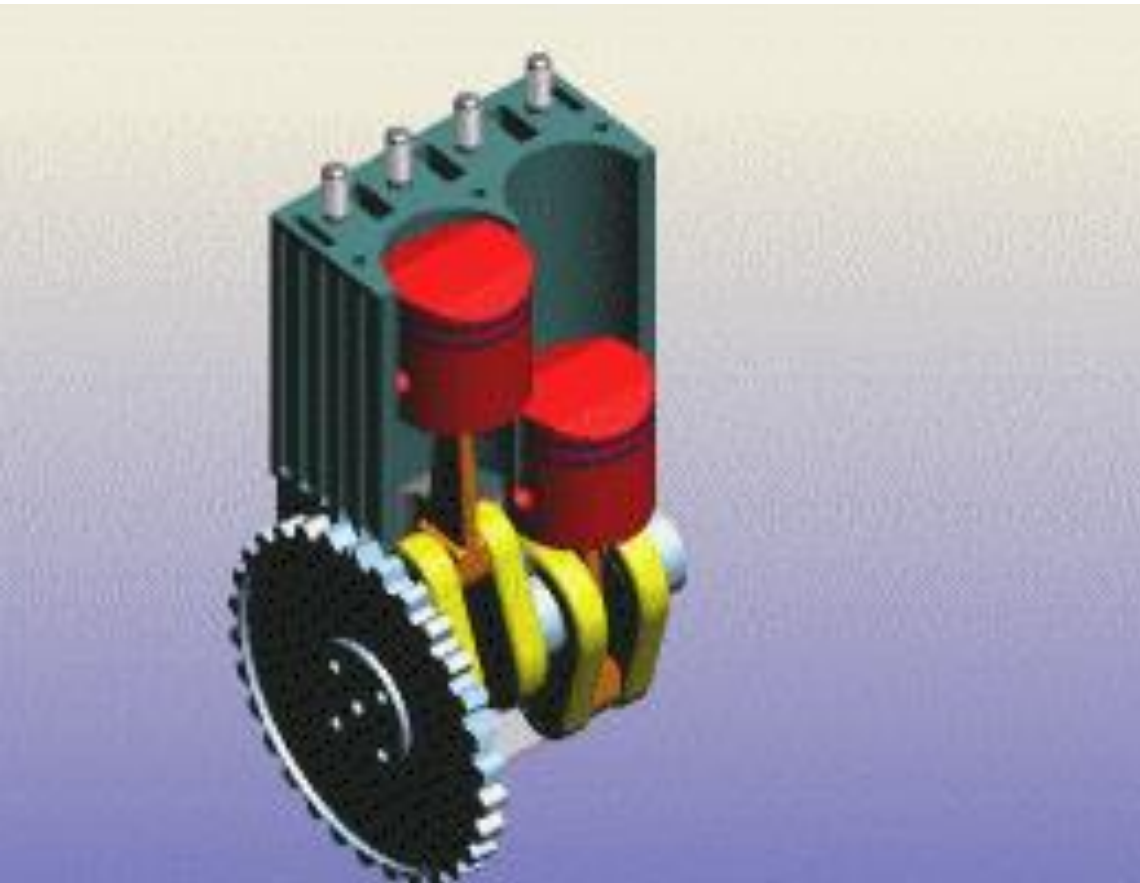
STATIONARY SUBSTRUCTURE



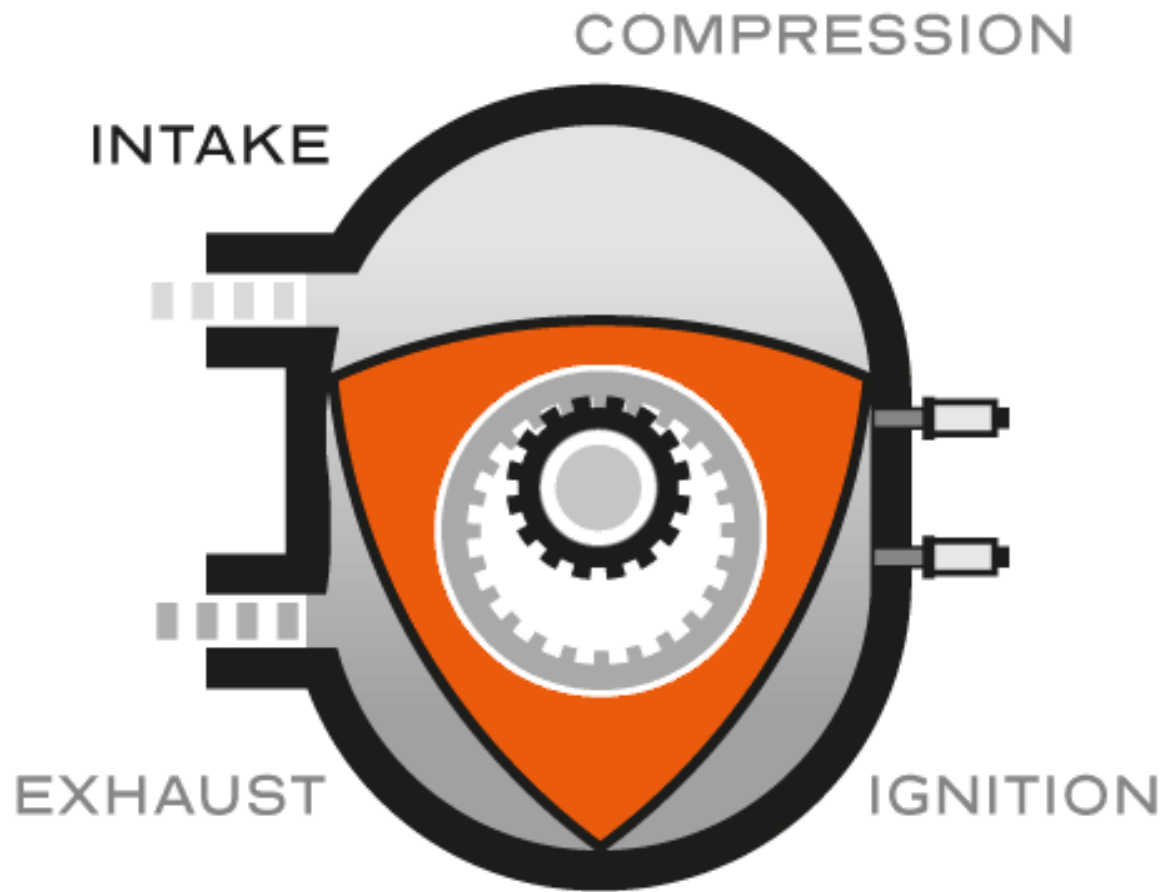
ENGINES THAT MAKES THEM GO



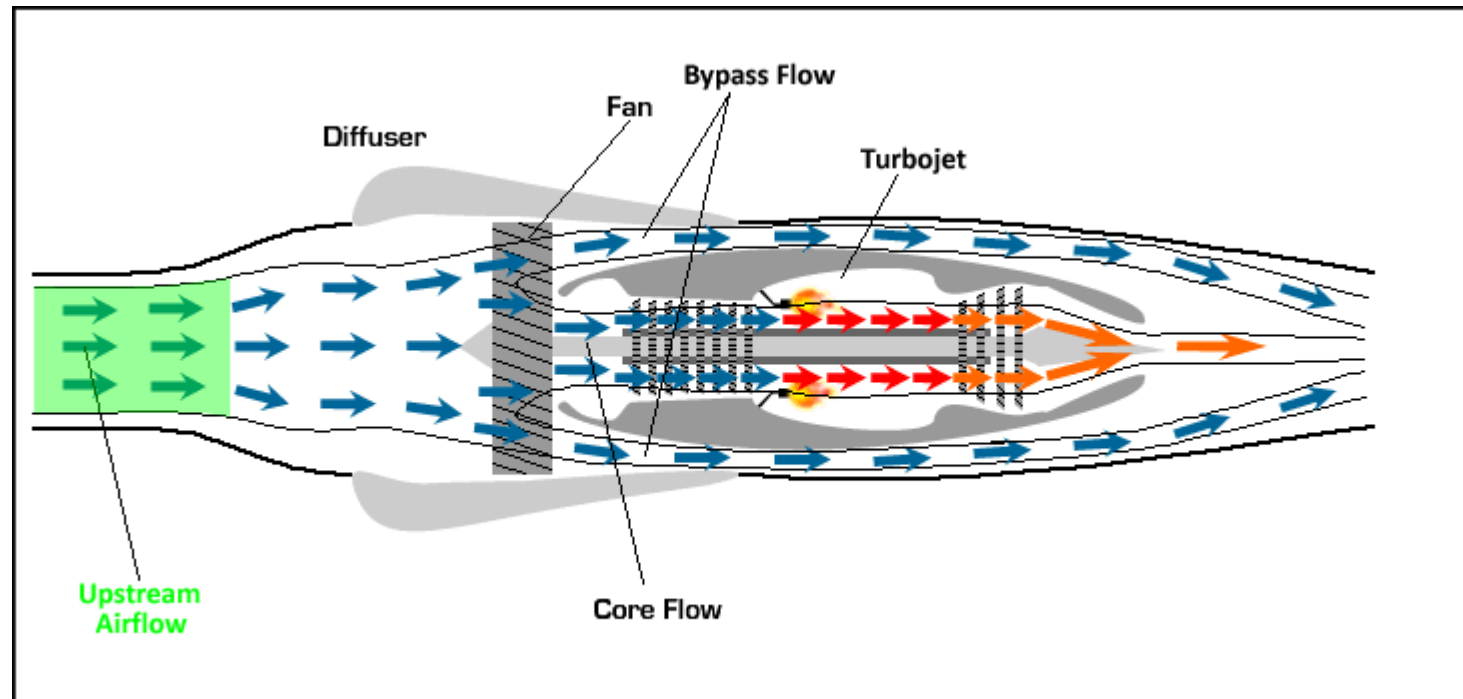
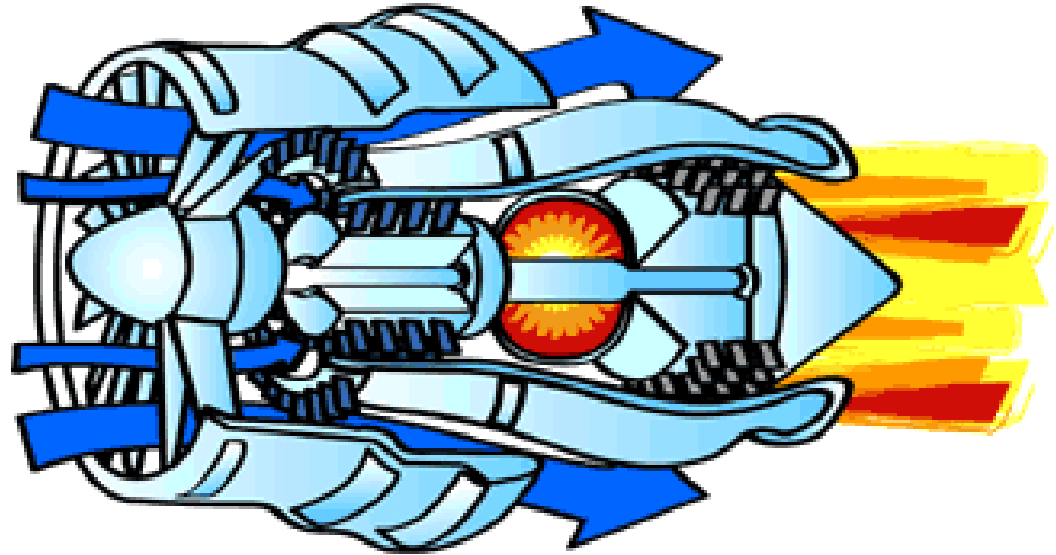
Reciprocating Engine



ROTARY



REACTION



ELECTRIC MOTOR

