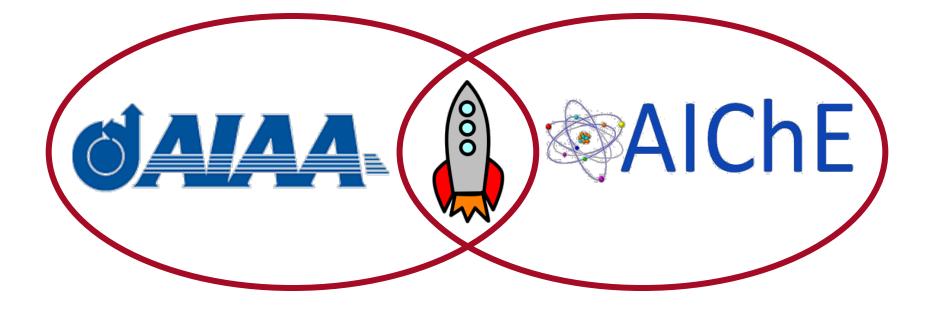


## AIAA/AIChE

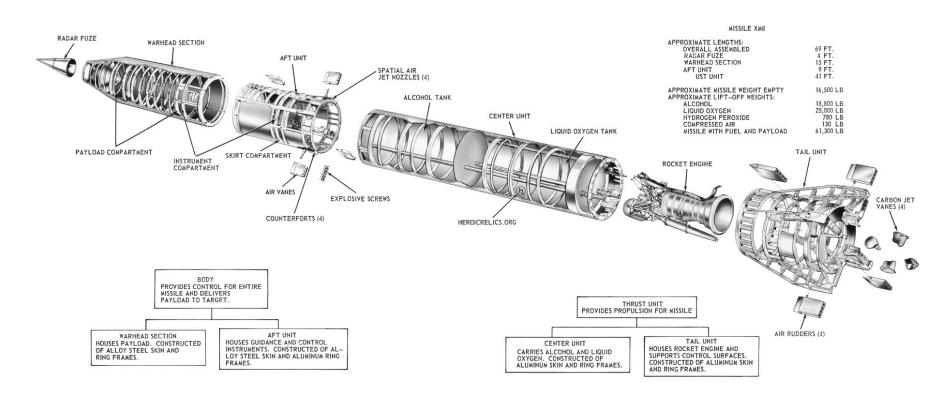


**Rocket Project Kickoff Meeting** 









Ballistic Missile Shell (Exploded View)

(not really)

ORD H10695 -A

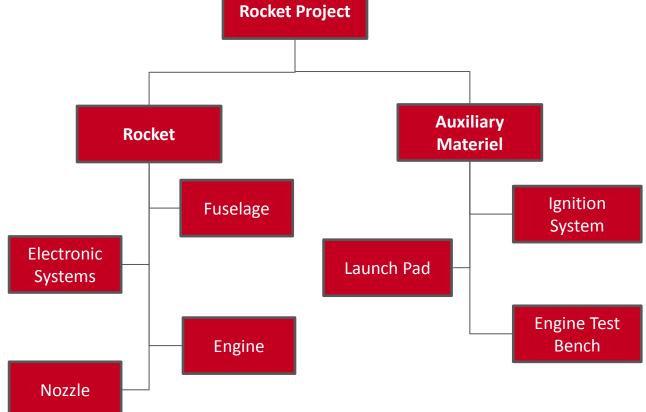
#### **Project Overview**

# Design Rocket(s)

- Make Rocket(s)
- Test Rocket(s)
- Launch Rocket(s)

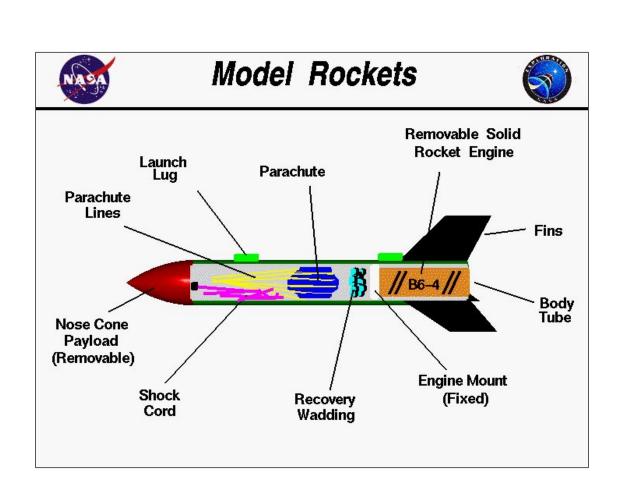




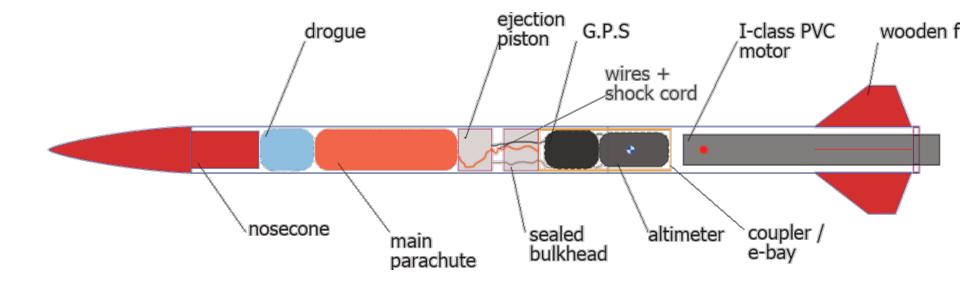


#### Work Breakdown

□Rocket
□ Fuselage
Nose Cone
Body
Fins
Fire Wall
Electronic Systems
GPS
Altimeter
Parachute Deployment System
Power Source
□Engine
Casing
Fuel
Nozzle
□Auxiliary Materiel
□Ignition System
Pyrophore (Igniter)
Cables
Control Box
□Engine Test Bench
Vice
Blast Shield
Control System (Labview?)
□Launch Pad
Anchoring Rod
Base Plate
Adjustable Legs







#### RCandy



- What is rocket candy?
  - Sugar

 $(\diamond$ 

- $-KNO_3$
- Corn Syrup



### Timeline



- Order materials: This week
   Need to finalize MOC choices
- Build and test motors: When Materials Arrive

   Need test stand & ignition system first
- Build fuselage: When Materials Arrive
   Start with designs of fins and nosecone
- Build test stand: ??
  - After designs of motors and fuselage are finished



#### What we need

- Research
- Team Leaders for each subsys
  - Fuselage
  - Electronics
    - Parachute deployment
  - Engine/Testing
  - Ignition System/Launch Tower

#### Other concerns

- Payload
  - An egg?
  - A GoPro or other camera?
  - Science stuff?
  - A rubber duck astronaut?
  - A warhead?
- Parachute Deployment System
  - Evaluate different options.



<u>https://www.youtube.com/watch?v=5NgE6z3</u> <u>rfFY</u> –making fuel

<u>https://www.youtube.com/watch?v=AniMDXI</u> <u>ARiA</u> – k-class rocket launch