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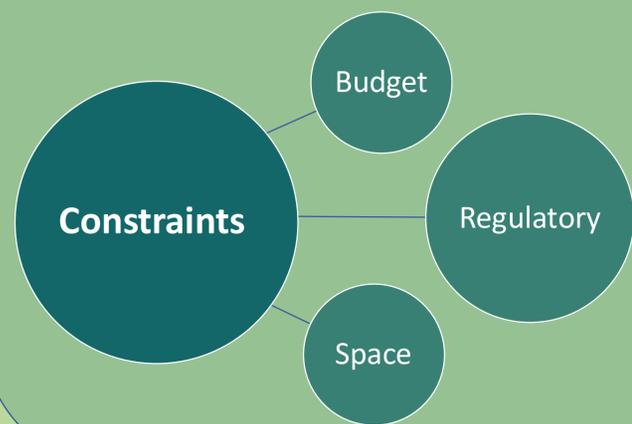


KFUPM Design Expo

Portable Surface to Air Missile (SHIHAB)

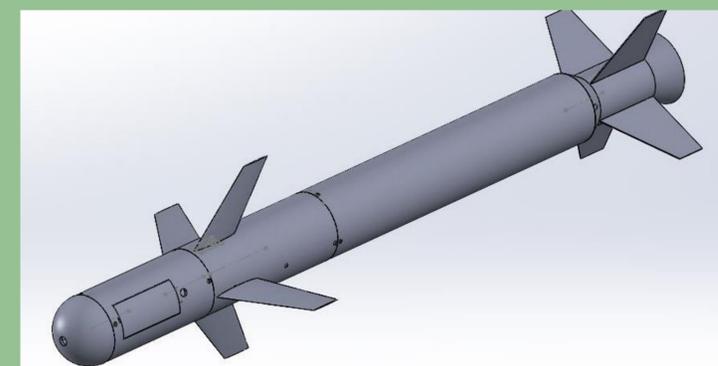
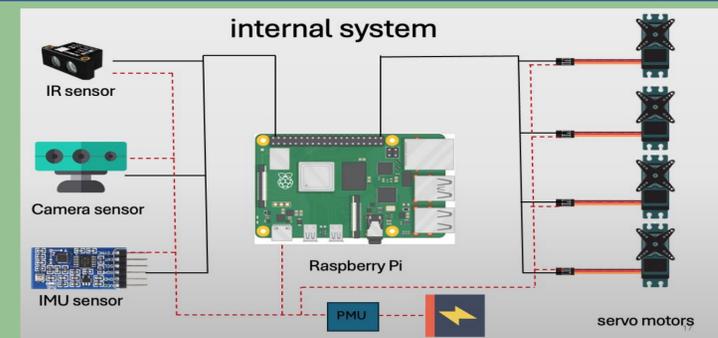
Background

Problem Statement: The Saudi Air Defense Forces rely heavily on expensive, imported missiles, creating a need for a cost-effective, locally manufactured alternative.



Conceptual Design

A locally designed Surface-to-Air Missile with canard featuring a 1kg warhead, infrared sensors, smart camera for tracking, and a parachute recovery system for innovative, cost-effective defense.

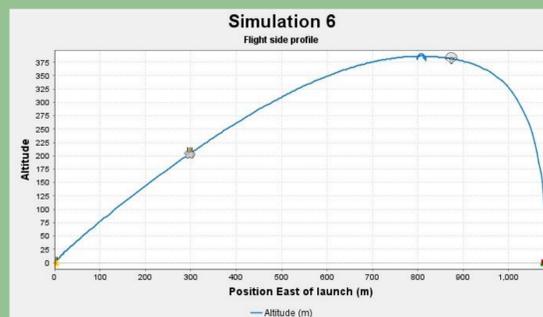


Prototype Design



Testing / Validation

exceeded maximum range and altitude



pitch angle is setpoint is at zero which indicates that PID controller working successfully



Future Work

- Finding a sponsor for the project.
- Getting permission to fly the missile.
- Improving the stability of the missile.