Sharkbait: Unmanned Underwater-Air Hybrid Vehicle
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Problem Statement
To design, build, and test a hybrid unmanned vehicle. The vehicle shall perform as an aerial vehicle, underwater vehicle, and transition between these modes without external intervention.

Objectives
• Dive
• Swim
• Transition from water to air
• Fly
• Transition from air to water
• Provide video footage throughout its mission

Three Phase Mission
• Transitional Phase (Ascent/ Takeoff/ Decent)
  • Duration Time: 3 min
• Steady Swim
  • Duration Time: 3 min.
  • Minimum velocity of 3.28 ft/s
• Steady Flight
  • Duration Time: 3 min.
  • Minimum velocity of 49.21 ft/s

Three Critical Technologies
• Hydrofoil
• Wing Extension Mechanism
• Internal Rail System