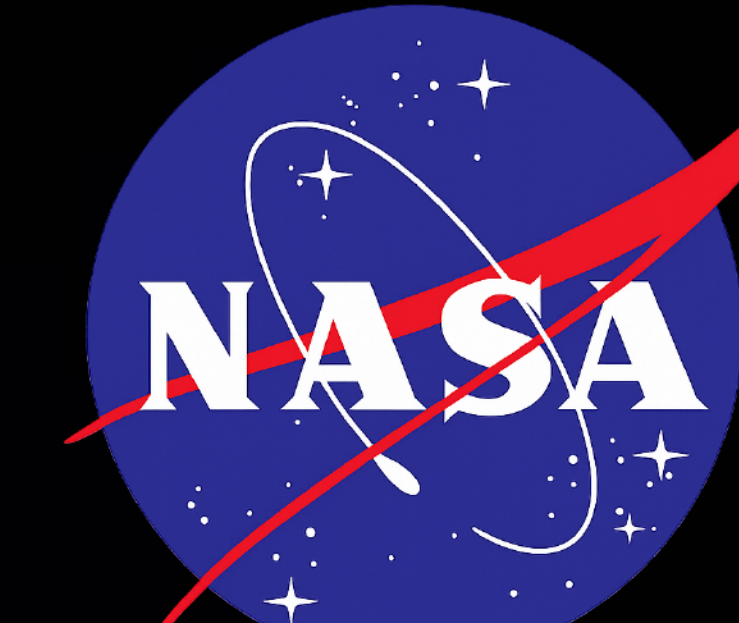




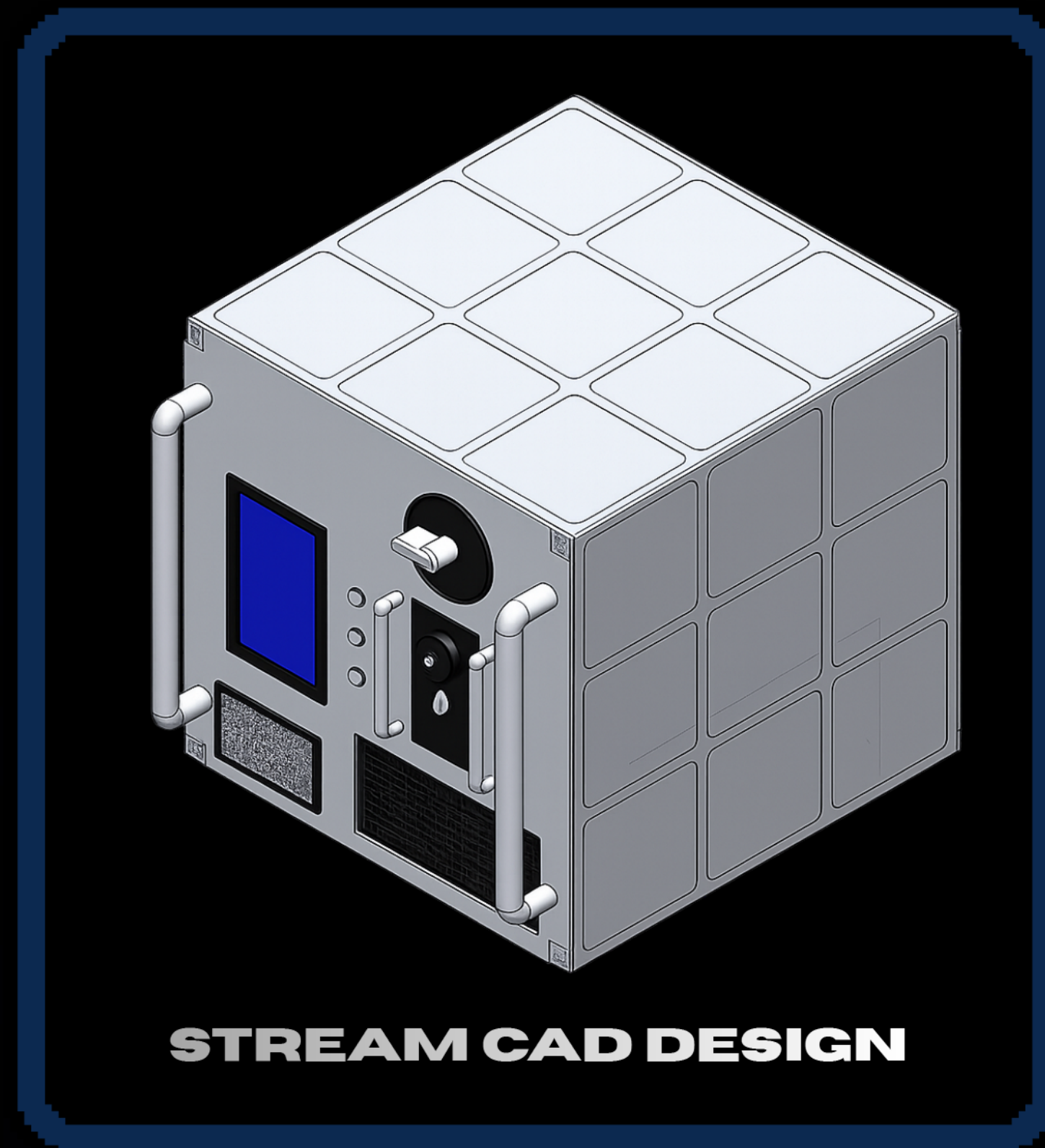
STREAM

SPACE TEMPERATURE REGULATED EFFICIENT AQUA MODULE

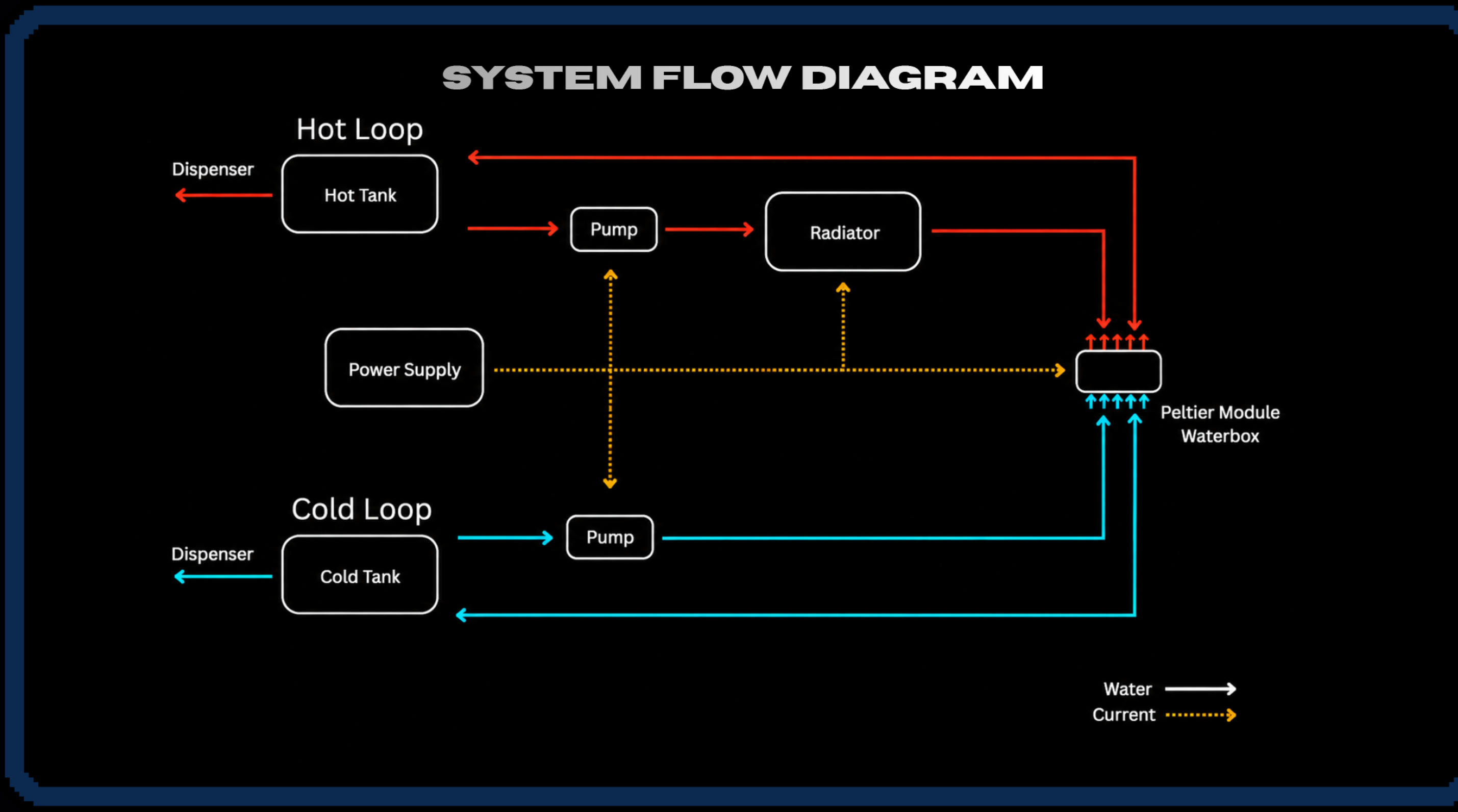


Team Members:
William Jimenez - Project Manager
Landen Skye Sanchez - Project Lead
Iram Betancourt - Quality and Management Lead
Emmanuel Soto - Communication Lead
Cristobal Munoz - Systems Lead
Jaden Cardenas - Systems Testing Lead

Advisors:
Gregory Potter - Primary Advisor
Jose J Sanchez - Secondary Advisor
Marcos Villarreal - Assistant Advisor



STREAM CAD DESIGN

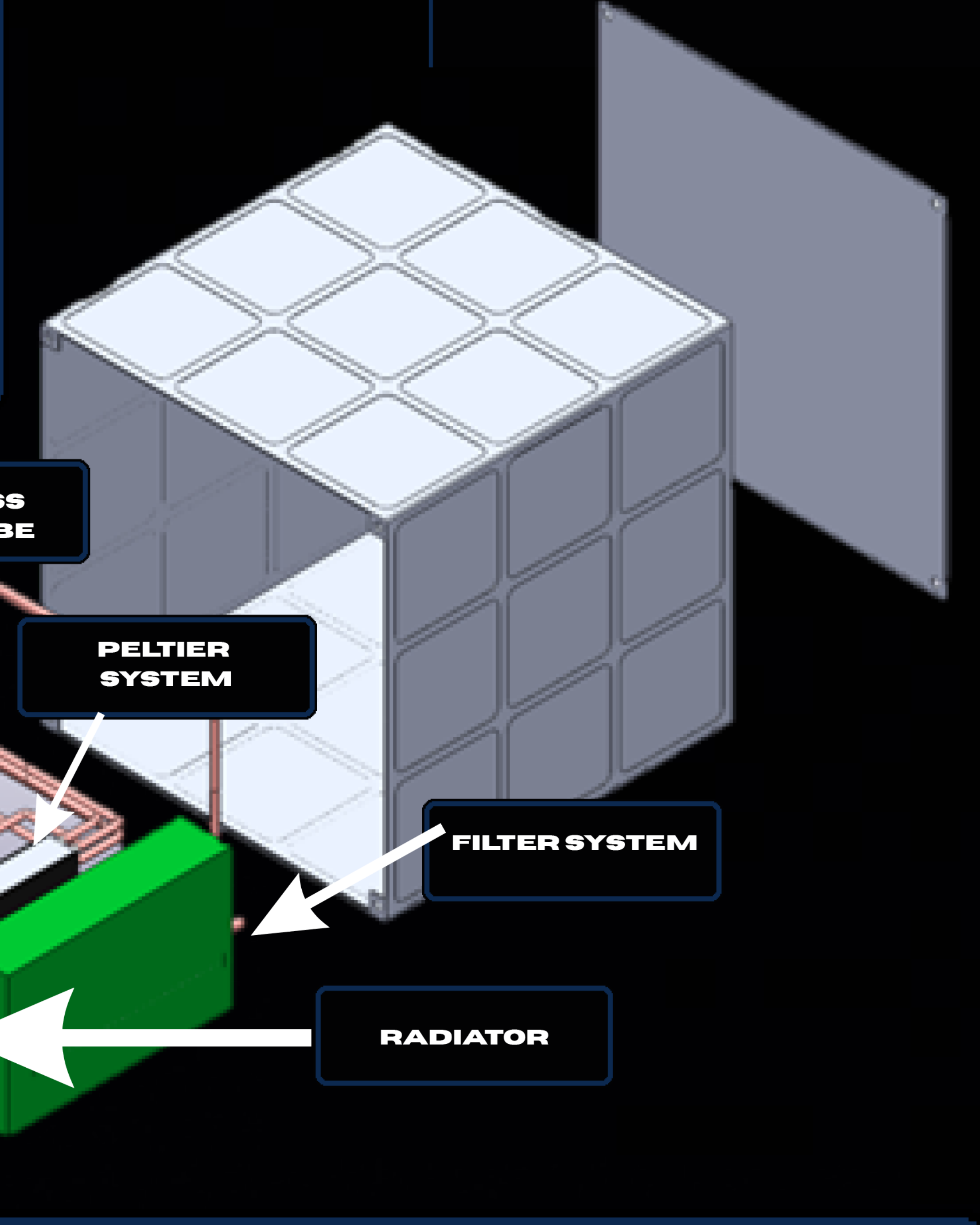


OBJECTIVE

DESIGN A COMPACT POTABLE WATER DISPENSER CAPABLE OF DELIVERING HOT, COLD, AND AMBIENT WATER FOR FUTURE LUNAR AND MICROGRAVITY MISSIONS.

KEY FINDINGS

- ACHIEVED 60.1 C HOT WATER
- ACHIEVED 13.5 C COLD WATER
- 12V PUMP PROVIDED OPTIMAL HEAT TRANSFER
- MODULAR DESIGN SUPPORTS FUTURE LUNAR APPLICATIONS

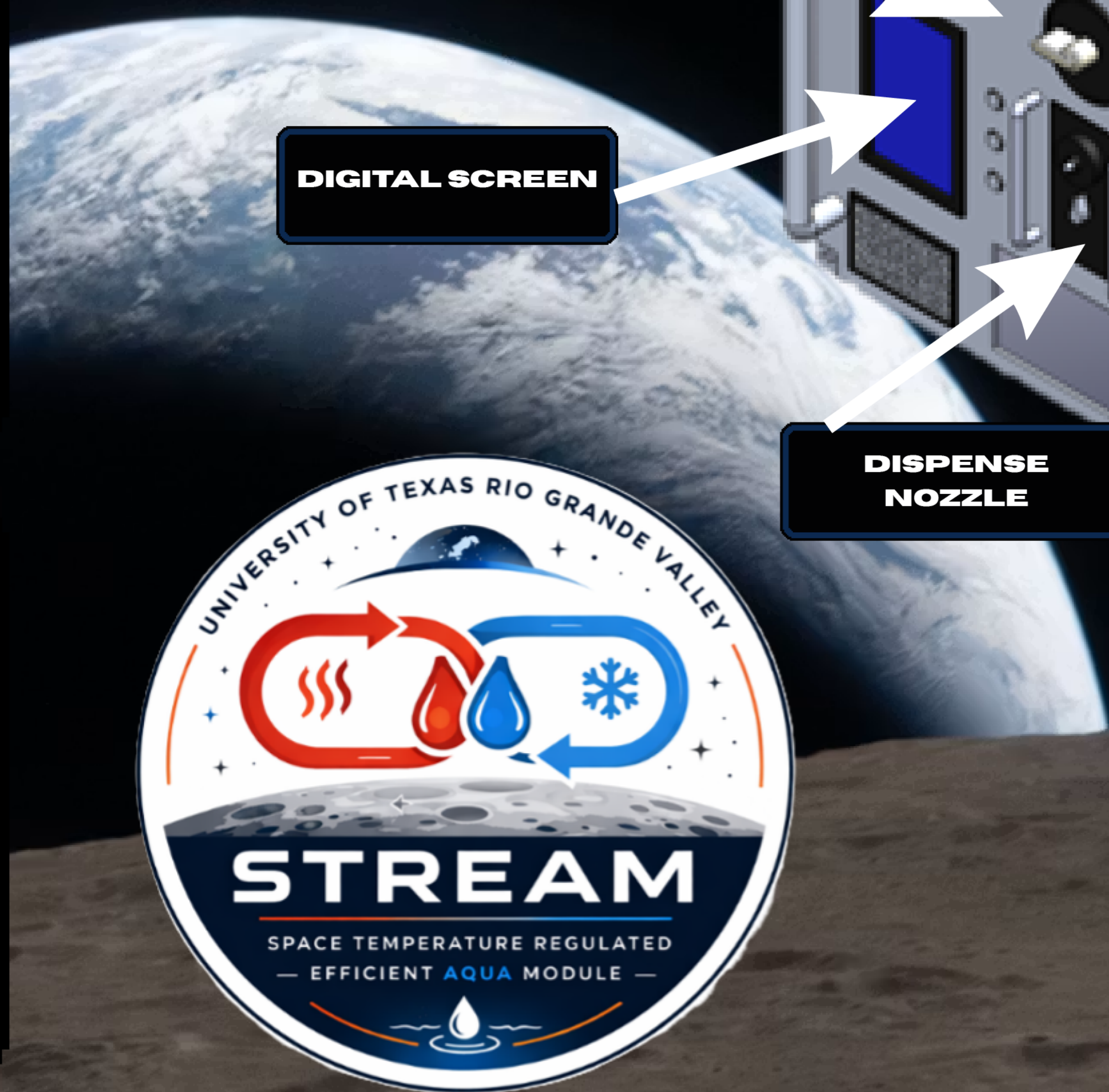


FILTRATION SYSTEM

- UV-C LED WATER STERILIZATION
- CHEMICAL-FREE PATHOGEN REDUCTION
- COMPACT INTEGRATION WITH DISPENSING SYSTEM
- SUPPORTS SAFE POTABLE WATER DELIVERY

DIGITAL SCREEN INTERFACE

- ALLIOWS SELECTION OF HOT, COLD, OR AMBIENT WATER SOURCE
- PROVIDES TARGET VOLUME SELECTION BEFORE DISPENSING
- DISPLAYS DISPENSE PROGRESS USING VOLUME AND PERCENTAGE FEEDBACK
- PREPARED FOR FUTURE INTEGRATION WITH PUMPS, SOLENOID VALVES, AND FLOW SENSORS



INSULATION

WITH INSULATION
Q (HOT) = 10.28W
Q (COLD) = 2.94W

WITHOUT INSULATION
Q (HOT) = 923.5W
Q (COLD) = 263.9W

