

# Rapid Expeditionary Security Surveillance Solution Retractable Arm



Booz | Allen | Hamilton

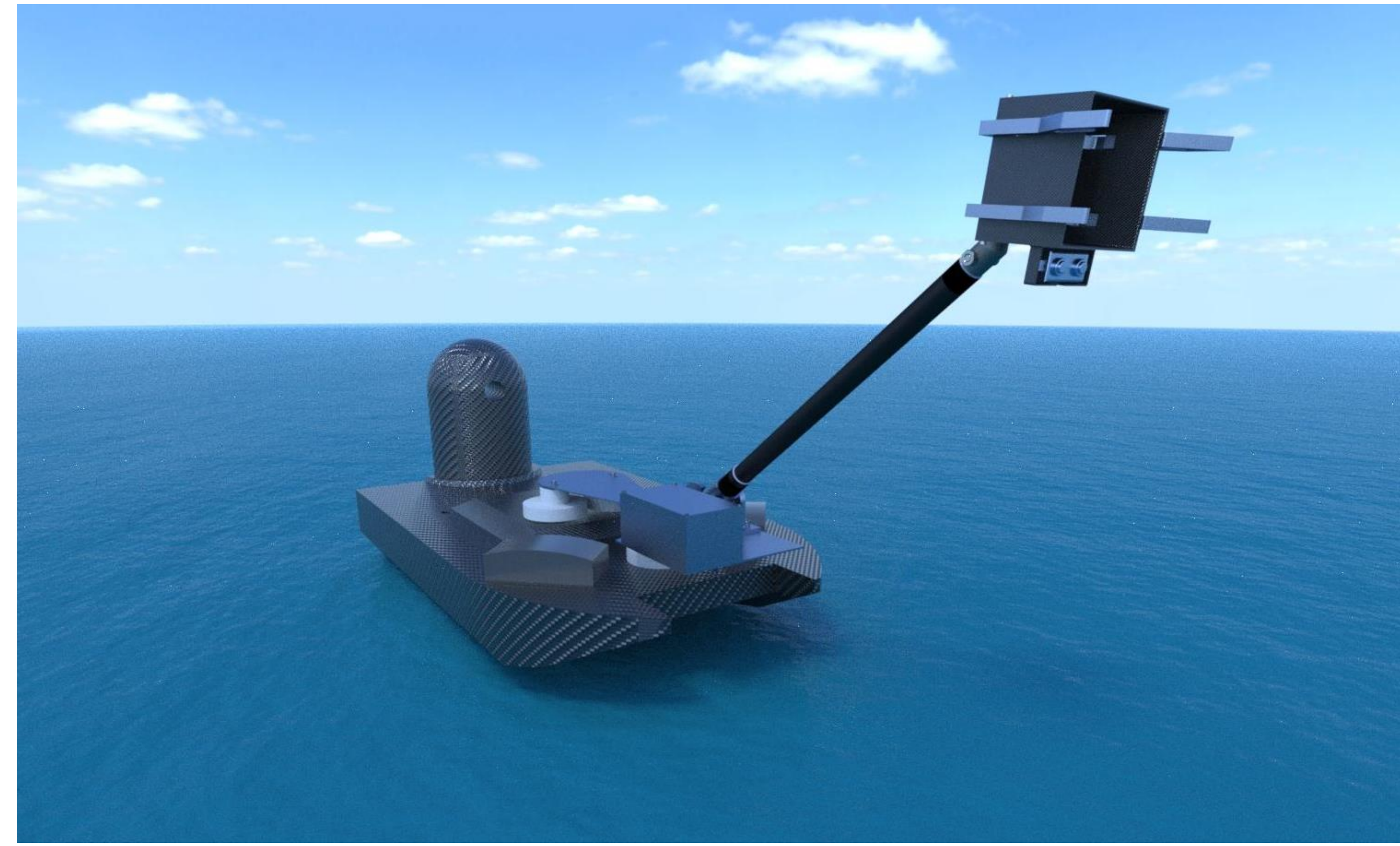
**SDSU** | College of Engineering  
Troops to Engineers

Sponsor: Mr. Alan Kolackovsky, Booz Allen Hamilton, Troops to Engineers, SDSU  
Advisors: Dr. Scott Shaffar and Dr. Barry Dorr, SDSU

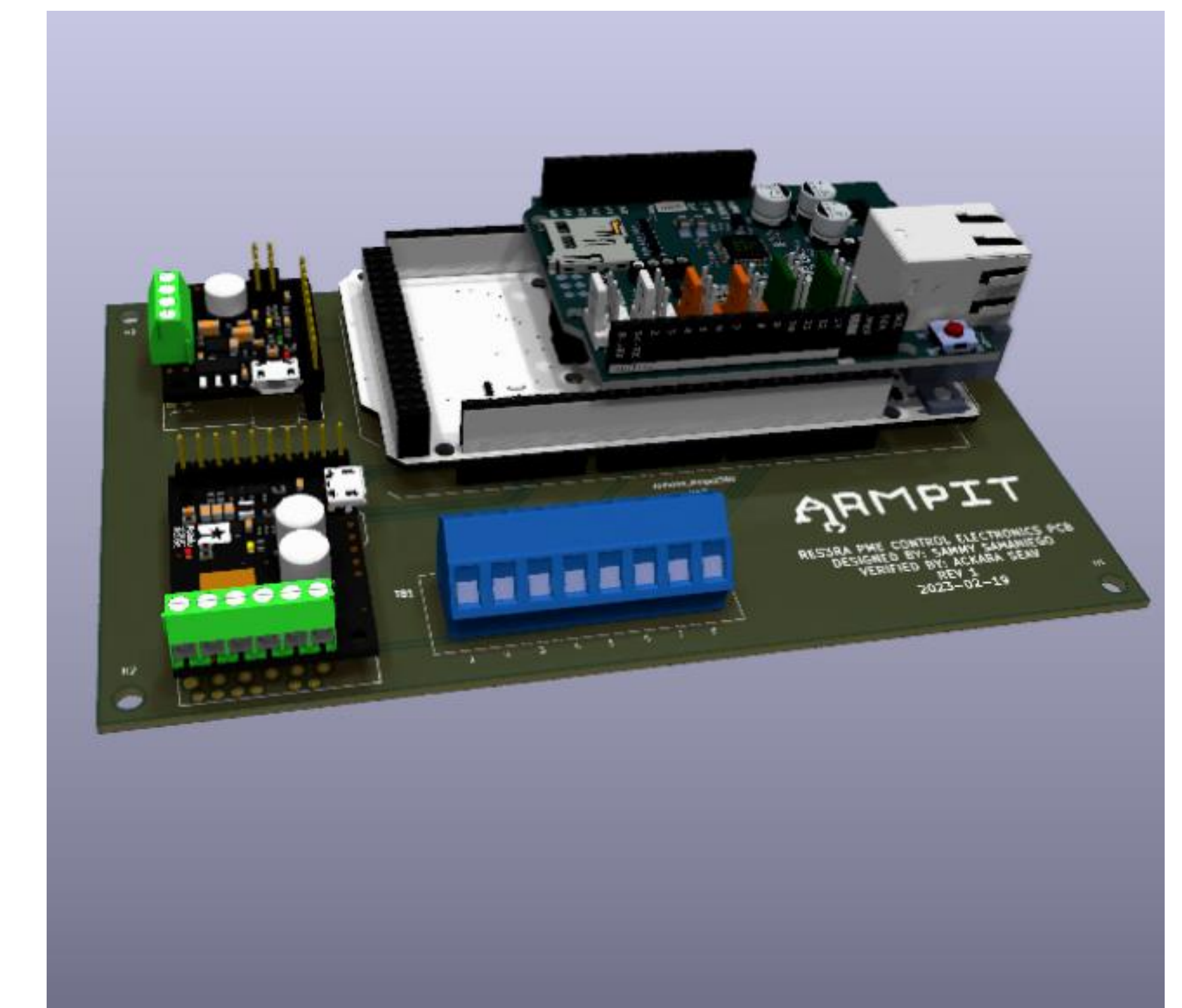
## Project Overview

RES3RA is a deck-mounted attachment for Booz Allen Hamilton's MANTAS (Man-Portable Tactical Autonomous System). MANTAS is an 8-foot unmanned surface vessel controlled remotely by two operators. RES3RA will be mounted on the bow of the MANTAS. The removable attachment will enhance the unmanned surface vessel's ability to perform reconnaissance and surveillance missions. By working in tandem with MANTAS, RES3RA will be able to mitigate the need for manned reconnaissance of this nature.

## Final Design



## Control Electronics PCB



## Our Team

 Nathan Reynolds Project Manager	 Sammy Samaniego EE Lead	 Barry Baker CE Lead
 Nathan Whitford Design Lead	 Andrew da Cunha Structures & Analysis	 Ackara Seav Power Electronics
 Brian Herman Manufacturing Lead	 Trent McGill Procurement Lead	 Oliver Shirley Signal Distribution
 Milan Bujosevic Testing Lead		

## System Level Diagram

