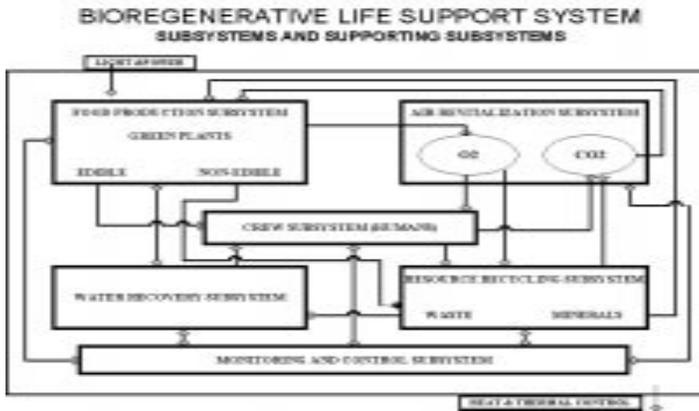


## Thinking Space Systems

# Evaluating the Application of Machine Learning to Control of Advanced Life Support Systems

### Products



### Product Objectives

- Completely autonomous, adaptive control of long-term space habitats
- Experimental evaluation of various machine learning techniques; TRL 1
- Prototypes of adaptive control of closed life support systems; TRL 3

### Participants & Customers

- co-PI: Dr. David Kortenkamp, NASA JSC
- co-PI: Dr. Justin Boyan, NASA ARC
- Dr. Andrew Moore and Dr. Jeff Schneider, CMU; Alan Schultz, NRL; Dr. Devika Subramanian, Rice University
- Unique facilities: BIO-Plex, NASA JSC
- Primary Enterprise Customer: BIO-Plex, Terry Tri, NASA JSC-EC (HEDS)

### Product Schedule & Funds

Product Milestones	00	01	02
<b>FY 00: Report</b>	<b>X</b>		
<b>FY 00: Experiments</b>	<b>X</b>		
<b>FY 01: Prototypes</b>		<b>X</b>	
<b>FY 02: Applications</b>			<b>X</b>
<b>CETDP (\$K)</b>	<b>\$345</b>	<b>\$500</b>	<b>\$500</b>
<b>Co-Funding (\$K)</b>	<b>\$0</b>	<b>\$150</b>	<b>\$150</b>
<b>Total (\$K)</b>	<b>\$345</b>	<b>\$650</b>	<b>\$650</b>

