

INSPIRE: Expanding Open Innovation Methods to Complex Engineering Systems

PIs: Zoe Szajnfarder¹ and Hila Lifshitz-Assaf²

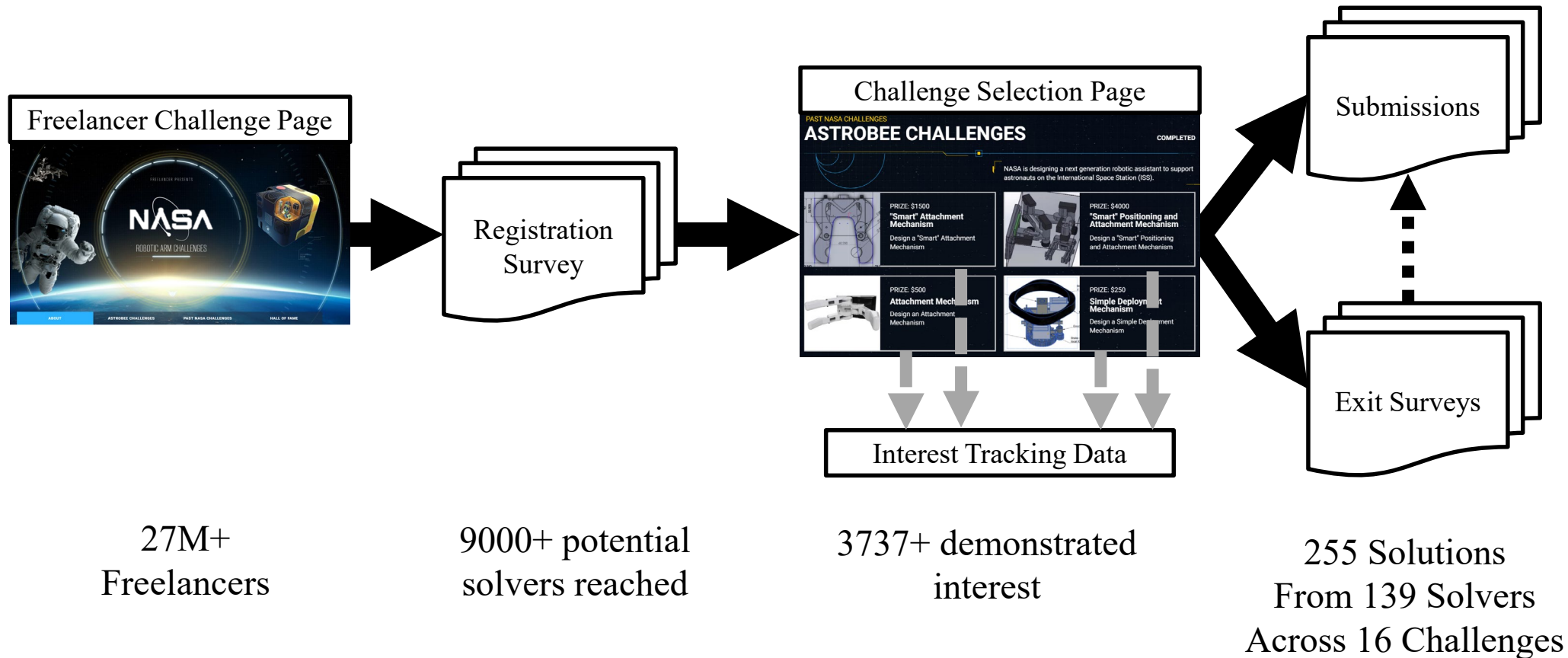
Students: Jason Crusan, Anthony Hennig, Suparna Mukherjee, Lydia Zhang

¹ The George Washington University, School of Engineering

² New York University, Stern School of Management

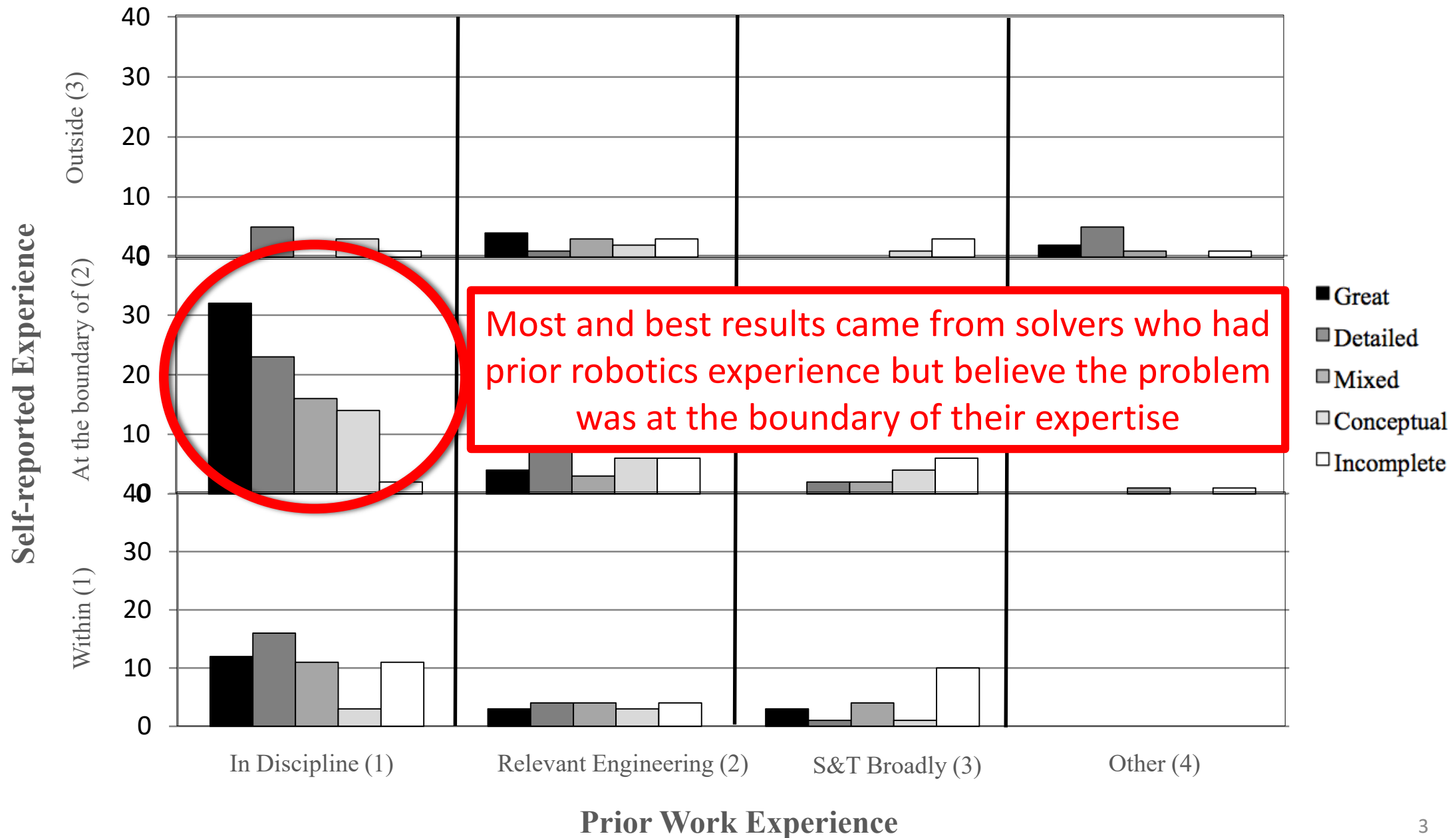
CMMI-1535539

Q: Who is the Crowd? (and can “they” really solve my autonomous robotic design problem?)



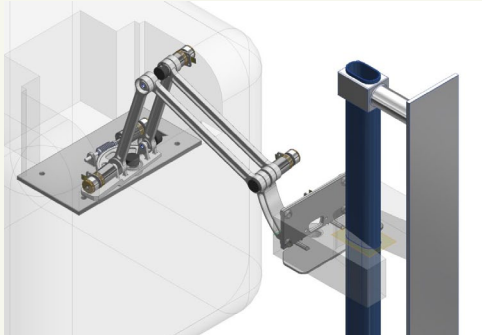
Experimental manipulation: Decomposition strategy + problem complexity

Where do the good solutions come from?

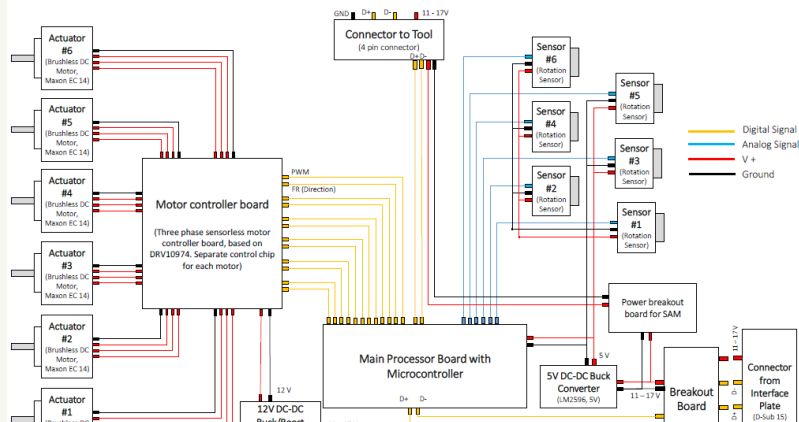


What kind of good solutions did we receive?

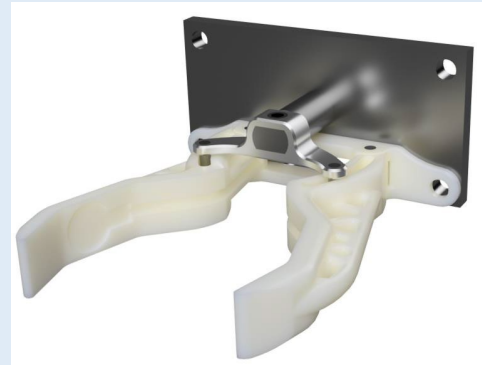
Detailed Design Descriptions



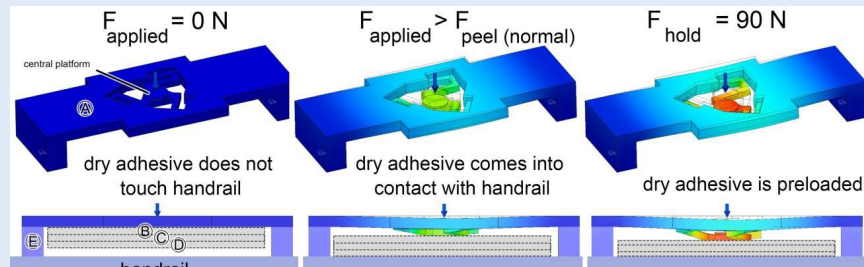
Block Diagram



Design Concept Prototyping



Sophisticated Engineering Analyses



Open Innovation in engineering isn't just about an extreme value point solution. The crowd explored a broad tradespace, shared solving insights and produced serious engineering work that we didn't expect. All for pennies/hour.