



NASA Space Grant Robotics

Company Specification Sheet

COMPANY NAME	NASA Space Grant Robotics
INSTITUTION	Arizona State University
LOCATION	Tempe, AZ – United States
DISTANCE TO COMPETITION	2,294 Kilometers
MATE SEASONS	2009 – 2013

EMPLOYEE LIST				
Name	Major	College Level	Team Position	First MATE Season
Matthew Plank	Computer Systems Engineering	Junior	Chief Executive Officer	2012
Michael Przeslica	Materials Science & Engineering	Junior	Chief Electrical Engineer	2012
Jonathon Houda	Mechanical Engineering	Junior	Chief Mechanical Engineer	2010
Anthony Hallas	Computational Mathematical Sciences	Senior	Chief Programmer	2011
Josh Miklos	Computer Science	Sophomore	Senior Programmer	2013
Ben Mackowski	Electrical Engineering	Junior	Programmer, Historian	2012
Max Ruiz	Electrical Engineering	Freshman	Senior Electrical Engineer	2013
Joseph Mattern	Electrical Engineering	Freshman	Electrical Engineer	2013
Carl Stevenson	Electrical Engineering	Freshman	Electrical Engineer	2013
Peter Tueller	Electrical Engineering	Freshman	Electrical Engineer	2013
D. Benjamin Teoh	Accountancy	Senior	Mechanical Engineer, Chief Financial Officer	2012
Erick Yanez	Mechanical Engineering	Senior	Mechanical Engineer	2012
Drew Denike	Mechanical Engineering	Freshman	Mechanical Engineer	2013
Vaibhav Menon	Aerospace Engineering	Sophomore	Mechanical Engineer	2013
Tyler Achey	Mechanical Engineering	Junior	Mechanical Engineer	2012
Jonathan Paul	Mechanical Engineering	Freshman	Mechanical Engineer	2013
Emily McBryan	Aerospace Engineering	Senior	Consultant	2009
Alex Kafka	Exploration Systems Design	Senior	Senior Consultant	2009
Mike Veto	Ph.D. Candidate Geological Sciences	Graduate	Senior Consultant	2009
Rob Wagner	Research Technician - Lunar Reconnaissance Orbiter Camera Science Operations Center	Graduate	Senior Consultant	2009



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Primary Competition ROV: Koi

PRIMARY CONSTRUCTION MATERIALS

- Aluminum
- Polycarbonate

DIMENSIONS

Length: 73.66 cm

Width: 45.72 cm

Height: 35.56 cm

WEIGHT

18.8 Kilograms

SAFETY FEATURES

- Power guards
- Automatic shut-off for lost connection
- Emergency stop command
- Power converters automatically shut-off on contact with water
- Keyed connectors to prevent mismatch
- Thruster covers
- Hazard marking tape around moving parts

SPECIAL FEATURES

- High efficiency reprogrammable motor controllers for different power settings
- Gimbaled cameras
- Streamlined hydrodynamic design
- Improved thruster layout allowing five degrees of freedom
- 4 cameras allowing 360 degree view around ROV
- How swappable manipulators and accessories
- Wet-mate connectors
- Backpack attachment for easy transportation to deployment site





NASA Space Grant Robotics Backup Competition ROV: AquaDevil

PRIMARY CONSTRUCTION MATERIALS

- Aluminum
- Polycarbonate

DIMENSIONS

Length: 60.96 cm
Width: 45.72 cm
Height: 30.48 cm

WEIGHT

14.3 Kilograms



SAFETY FEATURES

- Power converters automatically shut-off on contact with water
- Thruster guards
- Individually fused thrusters and manipulators
- Keyed connectors to prevent mismatch
- Automatic shut-off for lost connection
- Emergency stop command

SPECIAL FEATURES

- Gimbaled cameras
- Automatic contrast adjustment cameras
- Backpack attachment for easy transportation to deployment site