# 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

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