ABOUT THE TEAM

Alex Miller (10th grade, Garfield High School\textsuperscript{1}, 6th year of MATE competition): Chief Product Officer, pilot
Clara Orndorff (12th grade, Ingraham High School\textsuperscript{1}, 6th year of MATE competition): CEO, tether manager
Nicholas Orndorff (10th grade, Ingraham High School\textsuperscript{1}, 6th year of MATE competition): Chief Technology Officer, pilot

Seattle, WA, USA to St. Johns, Newfoundland, CA: 7192.3km/4469.1mi

ROV SPECS

Cost: Total value $8931; Amount spent $3194.25
Dimensions/Weight: 0.33m tall by 0.8m long by 0.5m wide; 22.67kg

Special features:
- Custom printed circuit boards (PCBs)
- Custom thrusters which use brushless motors to maximize the power-thrust ratio and are cost-effective compared to brushed motors
- Remote programming feature for easy troubleshooting
- Built in simulator LEDs enable testing of the control system without being connected to the ROV
- 24m-long tether, braided for minimum size and maximum flexibility
- Interlocking manipulator can retrieve objects of various shapes and sizes

Safety features:
- Anti-leak vacuum testing system and danger labels for moving parts
- 25A fuse within 25cm of power on the positive line, main power shutoff switch
- Inboard, shrouded thrusters and strain relief on tether and all cables
- Voltage and amperage meters at the surface, isolated switching power supplies to protect all electronics, no sharp edges
- A comprehensive JSA that meets the HSE standards for all necessary safety practices

\textsuperscript{1} AMNO & CO is not affiliated with any school or organization