

Umit Levent Erol

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To whom it may concern:

I am thrilled to apply for the for the Dorado AUV Operations Engineer (mechanical) position. I am a competent engineer and designer, a maker, and problem solver. I believe my experience, enthusiasm, and approach will make me a valuable addition to the AUV group.

I got introduced to underwater robotics in 2018 when I joined the freshly minted ROV team at CWRUbotix, the student-run robotics club at Case Western Reserve University. There I served as the fabrication lead: I helped design our mission-specific tools, manipulators, ROV frame, and control station. My primary responsibility, however, was managing manufacturing, finishing, and assembling the robot. I also worked extensively on developing our micro-ROV and integrating it into the main ROV. We showcased *Wobbegong* at the International MATE ROV competition in 2019, where it received a lot of attention for its unique powder-coated aluminum construction, robust design, and highly successful mission performance.

Although *the Wobbegong* is the only underwater robot I built, my engineering and robotics experience is not limited to it. Over the past 10 years, I've worked in machine shops, academic research labs, makerspaces, and woodworking/fabrication studios. I worked with sensors and digital instruments, repaired and maintained scientific and industrial equipment, and worked on integrating multiple systems together. As part of my hobbies and extracurricular activities, I've built robots, database systems, shop tools, furniture, and even art. For my master's thesis at CWRU, I developed, built, and tested a hip power unit for a robotic exoskeleton.

Outside of work, I enjoy woodworking, building and repairing boats, and spending time in or on the water. My latest large-scale project is building the final version of a kayak I started designing in 2019. Since my first model, I used computational tools to improve my design and built prototypes to evaluate the in-water performance and overall handling.

Working on AUVs is an amazing opportunity where I can combine aspects of my professional experience and my personal interests while learning more about the cutting edge of underwater robotics. I believe my diverse background, engineering and research experience, and interest in marine applications makes me an excellent candidate for this position. Thank you for your time, and I look forward to hearing from you.

Sincerely,
Umit Erol