



SPECS SHEET

KELPIE ROBOTICS '25

University of Ottawa, Ottawa, ON, Canada

PRESENTED TO

MATE ROV COMPETITION 2025 -
EXPLORER CLASS

COMPANY SPECS

- **Company and school name :** Kelpie Robotics, University of Ottawa
- **Home state and/or country:** Ottawa, ON, Canada
- **Distance required to travel to the World Championship:** 1129 km
- **History of MATE ROV competition participation:** Our company began its MATE journey in 2022, when we participated in our first competition. We returned in 2023 and, in 2024, made the strategic decision to take a one-year break to focus on developing a vehicle we could truly be proud of. This year, we are excited to return with SELK-I. While several members — including our CEO, Electrical CTO, and Float CTO — are returning competitors, and our Mechanical CTO previously participated at the high school level, the rest of our team members are new to the competition. We're looking forward to showcasing our work and engaging with the MATE community once again!

Figure 1: Company photo



From left to right, top: CTO Float - Ethan Bowering , CTO Electrical - Adam Dia Jr., CTO Software - Rafal Rytwinski, Mech Yazan Elmasry, COO - Carolina González G., Logistics Meriem Mostefai, CEO - Juan Hiedra Primera, Software Nizar Zariouh Jr. Float Float - Abdullah Ramadan & Jr. Electrical -Isaiah Kwapisz

From left to right bottom: Jr. Logistics - Mathis H. Barrette, Software Aaditya Shah, Electrical Matias Suvo, Electrical Leo Dionne, CTO Mechanical - Dakota Squires, Electrical Kevin Huang & Electrical Emina Lai

Not pictured: Software: Marianne Aguilar, Rayyan Iodhi, Yassine Moumine; Mechanical: Kirsten Crisp, Samuel Findling ; Electrical: Ahmad Muslat, Akram Atassi, Colin Jack; & Logistics: Sydney Pachal, Rebecca Ly

- **Range of Years of Study:** Undergraduate (1st -5th year) and Graduate (1st year) Students

ROV SPECS

- **ROV Name:** SELK-I
- **Total Cost:** USD 6387.61
- **Size (L X W X H):** 61.5 x 54 x 24.5 cm
- **Weight:** 16.1kg
- **Student hours to build:** 3500
- **Safety features**
 - Thruster cages
 - No sharp edges
 - Strain relief
 - Fuse protection
- **Special features**
 - Angled horizontal thrusters for maneuverability
 - Static and servo-mounted cameras
 - Adjustable buoyancy system
 - 3D printed joints with flexible configurations

Figure 2: SELK-I during pool testing

