**COMPANY NAME:** TecXotic

**SCHOOL NAME:** Tecnológico de Monterrey, Campus Cuernavaca

**STATE AND COUNTRY:** Morelos, México

**DISTANCE TRAVELED:** 3,863.5 km

**PARTICIPATION HISTORY:** Since 2015

**ROV NAME:** KOLOP

**SIZE AND MEASUREMENTS:** 42cm height, 54cm width, 42 cm depth

**TOTAL COST (USD):** $3,353.24

**TOTAL MASS IN AIR:** 20kg

**TOTAL WORK HOURS:** 10,000

**SAFETY FEATURES:**
- Custom guards for all thrusters.
- A slim profile tensor relief system.
- Dedicated fuses for the main ROV and micro-ROV.
- An accessible Emergency Stop Button.
- A pressure release valve in each electronic enclosure.
- Sharp edges were considered and eliminated during design phase.
- Each penetrator is sealed with epoxy resin and vacuum-tested to guarantee that they are not a failure point.
- A series of sensors indicating the operators the general status of the ROV and if necessary a safe shutdown.
- In case power is cut off or reconnecting is not possible, all thrusters shut down and due to the slight positive buoyancy of Kolop, an easy retrieval is possible from above the waterline.
- The pressure relief valves allow Kolop to work perfectly at depths greater than the stipulated by the RFP.

**SPECIAL FEATURES:**

**Software:**
- Proprietary UI and telemetry

**Electronics**
- Digital and analogic camera system
- Modular power system
- LED status indicator system

**Design**
- Slim tensor relief
- frame wheels
- Soft adaptive gripper
- Gripper switch
- Easy conversion from 8 to 6 thrusters
- Three levels for tool placement
- Geometry and patterns inspired by mexican folklore

**Safety**
- Safety stickers
- SOPs
- New safety protocols and communication system

**Logistics**
- A new and integral organizational structure
- An improved methodology for design and testing phases