

RONGZHEN KAIWU

Beijing Bayi School
Beijing - Canada:
11500km

The 2nd Year Participant
MATE ROV Competition
-- Ranger Class

COMPANY SPECS

COMPANY MEMBER



Ziye Tao
MD
10 Grade



Jinwen Li
CFO
11 Grade



Zibin Lin
Head of Programming
11 Grade



Jiaqi Zhang
CEO
11 Grade



Kangning Shi
CTO
11 Grade



Yutong Wu
Head of Mechanic
11 Grade



Jiaqi Wang
CPO
11 Grade



Tommy Zhou
SSE
8 Grade



Jiayi Lu
Hardware Engineer
8 Grade



Yuehan Miao
Design Engineer
10 Grade



Tanrui Peng
Software Engineer
10 Grade



Tianyu Yang
Test Engineer
10 Grade



Luotong Chen
OD
10 Grade



Yuxuan Luo
Process Engineer
9 Grade



Yukuan Cao
Programmer
10 Grade



Yiqing Gu
Safety officer
10 Grade

ROV SPEC

- ROV Name: OctaXplore pro max
- Total Cost: 13190.20 RMB
- Total Hours Spent: 6 month
- Weight (without cables): 5.83kg
- Weight (cables): 2.3kg
- Length (with Arms): 57.5cm
- Length (without Arms): 40cm
- Width: 40cm
- Height: 60cm

Safety Features

- Input voltage: 12V
- Waterproof step-down module
- Zero-buoyancy cable
- Anti-stretching devices at both cable ends (controller & ROV) to prevent direct pulling and reduce damage risk.
- No sharp edges on ROV
- Double-layer waterproof wiring panel + Vaseline at cable connection point.
- 3D-printed fixing device for sealed cabin, mounted on top frame.
- All thrusters equipped with 3D-printed shrouds (aperture <12.5mm) to prevent underwater entanglement.

Special Features

- The motor position is adjustable.
- The frame shape is similar to the turtle shell.
- The machine framework can reduce the water resistance.
- Main structure uses PVC water pipes – eco-friendly and low-cost.
- The flight control system enables ROV to maintain a stable posture during underwater operation.
- The flexibility of the fin bar claws enables them to more securely grasp target objects.
- Affordable price, high value for money.

