



南京工程学院

NANJING INSTITUTE OF TECHNOLOGY

Our company is called deep sea explore. we are from Nanjing Institute of Technology ,a popular university in Nanjing ,Jiangsu province ,China. It is a fairly long way from Nanjing to Alpena, it is the second time our team is participating in the MATE competition.

Our ROV has a pretty inspiring name --- SOARER, whose total expense is about 29256.5 Yuan. In the perspective of design rationale, the revolutionary change of the ROV comes to the shift of the robot's major structure from the plate to the 420mm*420mm*380mm framework. and use the aluminum alloy which meet the requirements of the solid structure and also reduce the weight of the robot, make it possible to accomplish the explore and search and rescue mission more flexible .



Triangles Structure are widely used to ensure the stability of the robot structure. Furthermore, Symmetric layout strategy makes the robot is more convenient to translation and rotation. Camera section contains four cameras, a USB camera and three AV wide Angle, so as to have a comprehensive understanding of the underwater environment point of view. There are nine brushless thruster control of the robot. Use the STM32 as master, the control system is the use of C language. The data transmission system consists of CAN bus and USB bus. We are looking forward to the fascinating competition, and we are ready to participate in it and leave an unforgettable memory.

Team member:

Haojue Luo	CEO (year 3)
Zhongqiang Tang	CTO (year 3)
Yue Wu	CFO (year 2)
Siyu Chen	Public Affair Officer(year 1)
Xiaoxiao Zhu	Public Affair Officer(year 1)
Ke Zhang	Mechanical Engineer(year 3)
Yanqing Zhuang	Mechanical Engineer(year 1)
Yonglei Zhou	Mechanical Engineer(year 2)
Biao Yang	Mechanical Engineer(year 2)
Pengfei Miao	Electrical Engineer(year 2)
Biao Jin	Electrical Engineer(year 3)
Yu Sun	Electrical Engineer(year 3)
Liwen Wan	Soft Engineer(year 2)
Ping Zhang	Robot Manipulator(year 3)

Teacher guild:

Hanqi Yu	Doctor
Wei Chen	Associate Professor
Xianglin Ma	Associate Professor
Jun Zhang	Doctor
Ximing Xia	Lecture
Lu Chen	Lecture
Li Cui	Lecture

