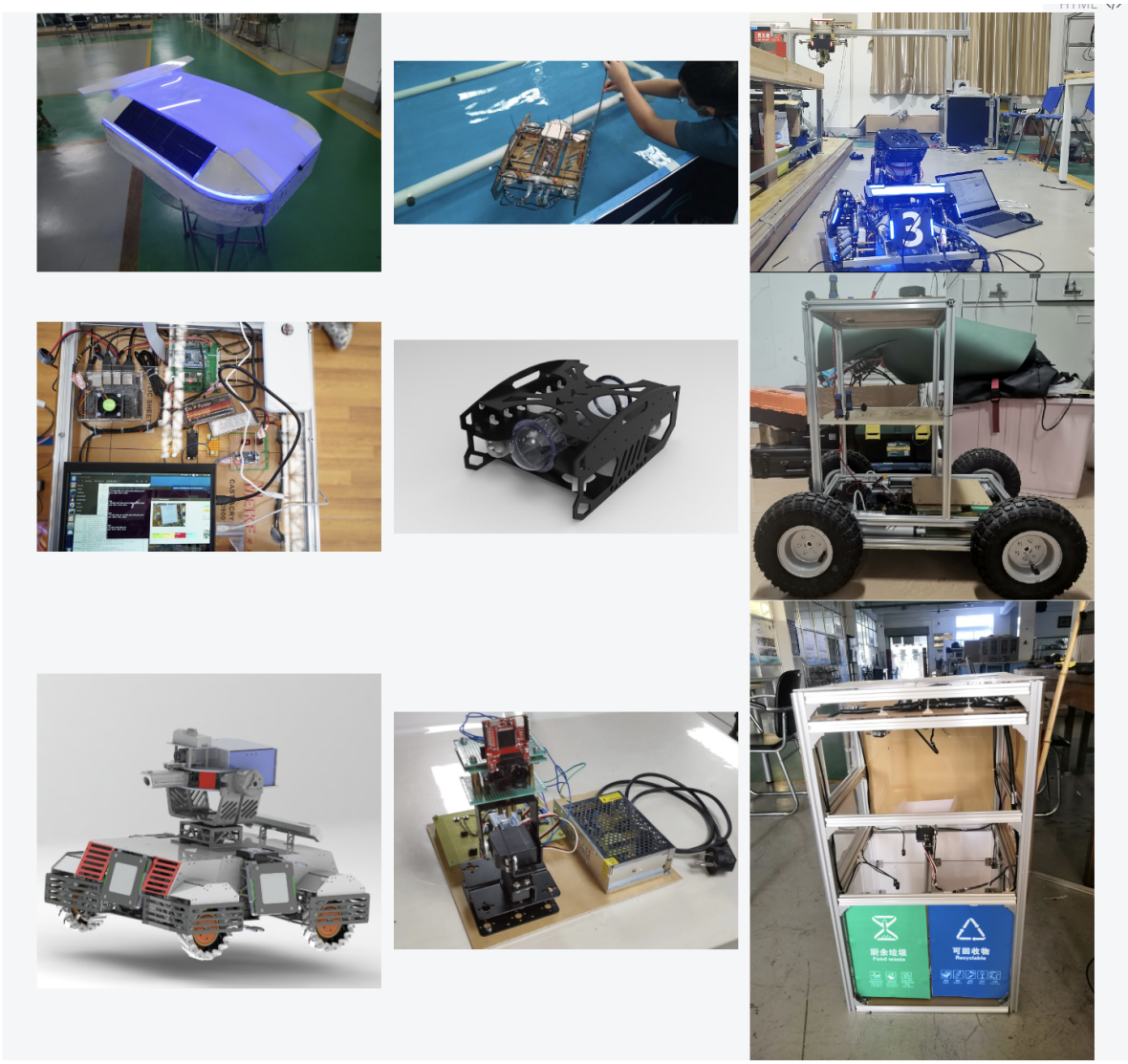
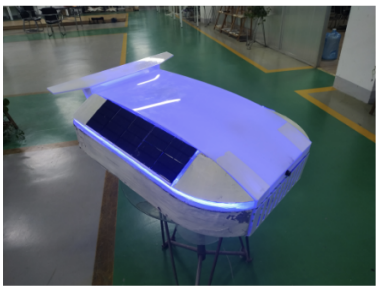
Undergraduate Project

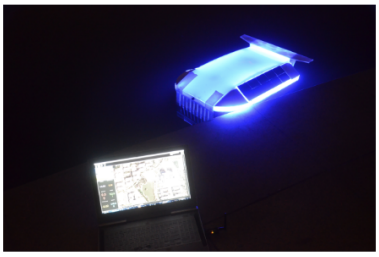


1.USV(Unmanned Surface Vehicle)

Date: 2019.10 - 2020.3 Doc PPT Video

Introduction: The project designed an **Unmanned Surface Vehicle(USV)** with functions such as surface path planning, autonomous cruise, surface image monitoring and return, and autonomous recognition of surface garbage; In 2020, our USV Project participated in the **National University Student Social Practice and Science Contest on Energy Saving Emission Reduction** and won the **third prize**.

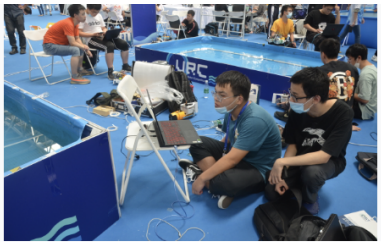


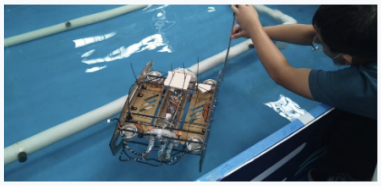


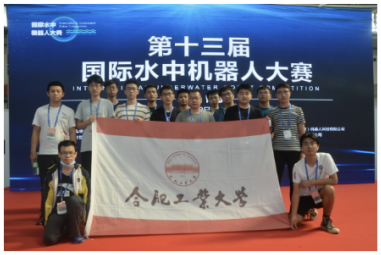
2.Underwater Robot

Date: 2020.6 - 2020.10 [Code]

Introduction: We designed an Underwater Robot that can **adapt to dive** in the underwater environment and **detect and track the pipeline**; In 2020, our **Underwater Robot Project** represented Hefei University of Technology to participate in the **International Underwater Robot Competiotion**, and finally won the 3rd.



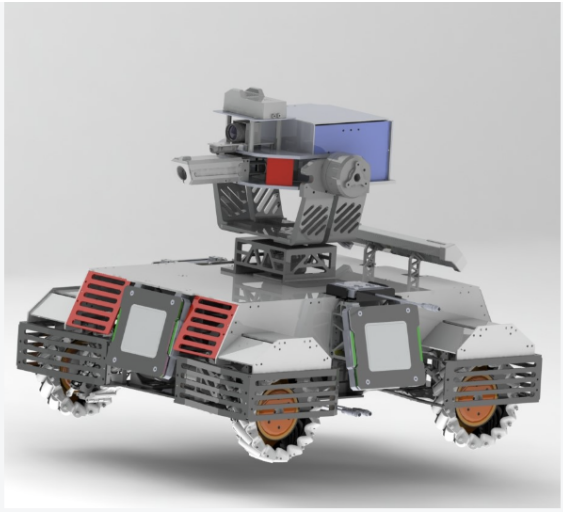


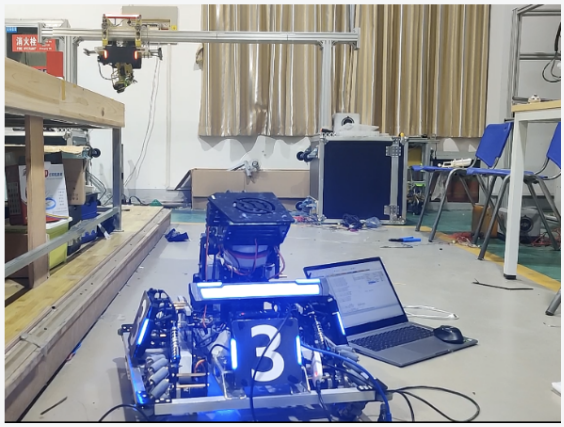


3.ROBOMASTER

Date: 2019.9 - 2021.4 [Code]() [Video]() [Doc-2021]()

Introduction: In 2019, my friends and I established the robot team of Hefei University of Technology to represent Hefei University of Technology in the **RoboMaster Robotics Competition**. I served as **the leader of the vision team** for two years, and our team won the **second prize** for two consecutive years, the entire robot team consists of **more than 60 students**.





4.Intelligent Sorting Trash Can

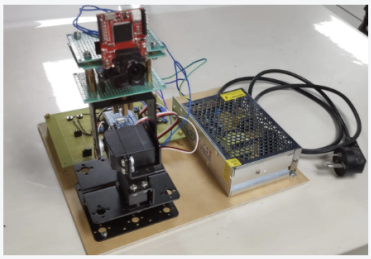
Date: 2020.3 - 2020.6 [Code]() [Video]()

Introduction: We have designed an **Intelligent Sorting Trash Can**, which can recognize thirty kinds of items, divide them into four categories (Recyclable waste, Kitchen waste, Hazardous waste and Other waste), and automatically classify them; The project won the third prize of **Anhui Province in the China College Students Engineering Practice and Innovation Ability Competition**.

5.Automatic Tracking, Identification and Measuring Device

Date: 2020.10.10 8:00 AM -2020.10.13 17:00PM Code Video Doc

Introduction: As the team leader, I led the team to participate in the **National Undergraduate Electronics Design Contest**. We designed an **Automatic Tracking, Identification and Measuring Device** in **four days and three nights**, which can recognize flat objects and three-dimensional objects and automatically measure its size and other information; Our project won the first prize in Anhui Province and is **the champion of this topic**.



6.SLAM-based Mobile Robot

Date: 2019.6 - 2021.6 [Doc]

Introduction: Our **SLAM-based Mobile Robot Project** is funded by the National College Students Innovative Entrepreneurial Training Plan Program(20, 000 rmb), I was the **algorithmic finisher** on the project; In 2021, our Mobile Robot Project participated in The National College Students E-commerce Innovation, Creativity and Entrepreneurship Challenge and won the second prize, unlike other competitions, this is a commercial competition, and I represented my team at the defense in Kunming, China; In 2022, the selected represents Hefei University of Technology to participate in **The 15th National College Student Innovation and Entrepreneurship Conference, (4/1369)**.

Patent

1.Older Care Robot(老年陪护机器人)

- China Design Patent，
- Patent Number：ZL201930437642. 1
- Date：2019.8.13

2.Automated Guided Vehicle(自动运输车(AGV))

- China Design Patent，
- Patent Number：ZL202130003562.2
- Date：2021.1.5

3.Intelligent guide methods and systems based on image cognition(基于图像认知的智能导盲方法和系统)

- China invention patent
- Patent Number：202010803198.2
- Date：2020.10.29

证书号第5618043号

外观设计专利证书

外观设计名称：柔性抓护机器人

设　计　人：李宁;吴天福;唐锐通;向古纵;唐宇;吴际;陈智凯;李东旭;刘威

专　利　号：ZL 2019 3 0437642.1

专利申请日：2019年08月13日

专 利 权 人：李宁

地　　址：230006 安徽省合肥市包河区屯溪路193号合肥工业大学

授权公告日：2020年02月07日　　授权公告号：CN 305596305 S

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局长
申长雨

2020年02月07日

第1页（共2页）

其他事项参见背页

证书号第6604880号

外观设计专利证书

外观设计名称：自动运输车（AGV）

设　计　人：程旭;王学甫;孔慧芳;魏军田;胡蓝;李东;赵钟主

专　利　号：ZL 2021 3 0005982.2

专利申请日：2021年01月05日

专 利 权 人：合肥工业大学

地　　址：230009 安徽省合肥市屯溪路193号

授权公告日：2021年06月01日　　授权公告号：CN 305578328 S

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局长
申长雨

第1页（共2页）

其他事项参见背页

国家知识产权局

102206

北京市昌平区沙河镇百沙路松兰堡村西社南222 北京九诚知识产权代理事务所（特殊普通合伙）
金芝(18910609105)

发文日：

2020年10月20日

申请号或专利号：202010803198.2　　发文序号：2020102608646510

申请人或专利权人：合肥工业大学

发明创造名称：基于图像认知的智能导引方法和系统

发明专利申请公布及进入实质审查阶段通知书

上述专利申请，经初步审查，符合专利法实施细则第51条的规定，根据专利法第34条的规定，该申请在36个月内将自申请日（2020年08月13日）起满36个月，即在2023年08月13日之前随时提出实质审查请求。申请人应当在此期间内提出实质审查请求，并缴纳实质审查费。

根据专利法第35条第1款的规定，国务院专利行政部门可以自行对发明专利申请进行实质审查，也可以指定或者委托国务院专利行政部门设立的专利审查协作机构对发明专利申请进行实质审查。

申请人请求实质审查的，应当提交实质审查请求书。

申请人无正当理由逾期不请求实质审查的，该申请即被视为撤回。

国务院专利行政部门对发明专利申请进行实质审查后，认为不符合专利法规定的，应当通知申请人陈述意见或者进行修改；经申请人陈述意见或者进行修改后，仍然认为不符合专利法规定的，应当驳回该申请。

发明专利申请公布后，申请人可以提前请求实质审查以早日获得专利权。

审 查 员：自动审查　　审查部门：专利局初审及流程管理部

联系电话：010-62084704

210088
2018.10

国家知识产权局专利局受理处
地址：北京市海淀区蓟门桥西土城路6号

提交申请、回函请寄：100088 北京市海淀区蓟门桥西土城路6号 国家知识产权局专利局受理处

电子申请，应当通过电子专利申请系统以电子文件形式提交相关文件，除另有规定外，以纸件等其他形式提交的文件视为未提交。