

Zhou Minnan

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Tianjin, China



Education

Tianjin University

Sep 2017 - Jul 2021

Measurement and control technology and instrument

- GPA: 3.5/4.0 (85.2/100)
- Major courses GPA: 3.6/4.0 (87.8/100)

Project experience

Development of photoelectric sensor pod for high mobility UAV

Mar 2019 - Oct 2019

- **Main purpose:** Develop the pod within a set of sensors for high mobility UAV, including visible light, infrared light, and lidar, which can recognize and track ground targets. This pod is perceptive to the environment and send a live video stream to the ground.
- **What I have done:** The development of the pod and ground image transmission system. Based on Raspberry Pi, RK3399Pro SoC (OS: Debian 9), and Realtek WiFi Adapter (With AD5606).
- **Goals:** 2km with 1080p@30fps image transmission and data transmission and Linux image broadcasting program (Based on GStreamer)

Development of electronic monitoring system for protective clothing

Jan 2020 - May 2020

- **Main purpose:** Develop protective clothing with a body temperature detector, breathing sensor, heartbeat sensor, air conditioner and video and audio communication system. This system can protect medical staff basing on measured data and build up image and audio transmission system between medical staff and the medical center.
- **What I have done:** I develop a multi user video transmission WiFi network based on esp32 and common wireless router. Also, I completed the miniaturization of the transmission module and the camera to reduce the size to 2cm * 3cm, so as to provide stable real-time video stream without interfering with the normal operation. The working range of the system depends on the coverage of the basic network, which can be easily extended.

Campus experience

Leader of LabVIEW Club

LabVIEW club is a famous club in our school, sponsored by National Instruments. The club often organizes Lab VIEW teaching, team project development and programming competitions. I am in charge of projects guiding and some teaching tasks. LabVIEW is also used in some major courses experiments, mainly for digital signal processing.

Past projects:

- Control of mechanical arm
- Audio signal processing

Skills

- C Programming
- MATLAB Programming
- STM32 Programming
- Verilog HDL