Haotao Lai

Phone: (+86) 15913178542 Email: qq584863350@gmail.com Website: laihaotao.github.io

Education

Guangzhou University **S**ept.2012 - Now
Major: Mechanical Automation Engineering (BSc. expected in June 2016)
Overall GPA: 79%
IELTS: 6.5 (no band below 6)

Academic Projects

Internet express system Sept.2014 - Now
- Created intelligence-based interactive system using Java for android
- Implemented communication between android and STM32 as the control unit
- Received 10,000 RMB funding and a patent authorization

A kind of smart home demo base on Android and STM32 Sept.2015 - Oct. 2015
- Completed the whole Android app by myself
- Used the Bluetooth to communicate with the STM32
- Awarded as the first-class project in my class

Obstacle avoidance / remote control robot March - June 2015
- Created using Arduino and Visual Basic
- Independently wrote the libraries using Arduino
- Used three casters for implementing the Omni's moving direction, RS485 communication protocol to organize the sensor network, Visual Basic for master computer's UI and controller, and a wireless video transmit module with the controller

Obstacle avoidance / remote control car Sept. 2014 - Jan. 2015
- Team leader for creating system using AVR resources (including IO operation, interrupt, timer, UART, SPI)
- Integrated system with several sensors (ultrasonic, infrared, and Bluetooth) and two DC motors
- Algorithms applied for obstacle avoidance

Special design projects for blind and disabled people March - June 2014
- Projects funded by Guangzhou Education Bureau

Entertainment based system (dancing mat) for blind children
- Developed (as 2nd author) using STM32, SD card, I^2C communication protocol and DMA
- Through investigative research done at the Guangzhou Blind Children School to better learn how to design communication for children's needs

Search tool for blind children
- Developed (as 2nd author) using Arduino and NRF24L01

Disability assistant page reader
- Applied mechanical engineering design as 1st author for the linkage, and fabrication of the synchronous belt pulley and the motor

Forklift truck system Sept. 2013 - Jan. 2014
- Developed (as 1st author) using Arduino, Bluetooth, android, and 3D printer
- Received a 2nd place in school project competition and a patent authorization

School and Volunteer Activities
- Committee Member and Director in the Student Union
- Volunteer in different capacities at several Canton Fairs
- Student tutor, assisting students to pass math and physics exams

Awards
- Outstanding Student Award (2012)
- Second Class National Scholarship (2015)University's Science and Technology Innovation Contest (2nd place in 2013)
- Guangzhou University Lab Competitions (1st and 2nd place in 2013 and 2014)
- Second Class National Scholarship

Relevant Computer Skills

Programming Languages: C , Java, National Computer Rank Examination Level 2
Computer Aided Design: Solidworks Altium Designer
Stimulation Software: Proteus
Microcontroller Development: Arduino 80C51 AVR Stm32
Integrated Development Environment: Android Studio NetBean Eclipse