Drone Technology

About

Welcome to Drone Technology Course!

This course is an elective course of the Infotronic System Engineering (B.Sc.) at HSRW.

For the first run of this course in summer semester 2022 we decided to build a mini drone based on ESP32. We are inspired by other projects and reference designs.

Our Design

- **Design**
  - System Requirements Document
    - Schematic (⚠ in design process ...)
  - Kicad Project EduCopter PCB (github)

Drone Reference Designs based on ESP Microcontrollers

ESP Drone: Espressif Reference Design

The comprehensive Espressif reference design is based on ESP32 Wrover.

- Espressif ESP Drone web site
- Espressif ESP Drone git repo

ESPcopter

This is a cool company from Turkiye. Their design is based on ESP8266 (I believe). **ESPcopter provides great educational material.**

- https://espcopter.com/

Other Designs

Crazyflie by Bitcraze, Based on STM32

- Schematic

Resources

- PID Controller

External Resources

- ESP32 Introduction
- ESP32 DEV KIT V1 pinout
- Fab Motor Controller

Shops

- https://www.premium-modellbau.de/

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