RealTime Systems Project

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Project Introduction

Team Size: Up to 4 People

Project Theme: Enhancing and Innovating with the "Devastator Tank Robot"

Project Goal:

Optimizing the Robotic Platform with Advanced Hardware Integrations. **Boost the functional capabilities** by augmenting it with innovative sensor and actuator integrations, using the C/C++ programming language.

Overview

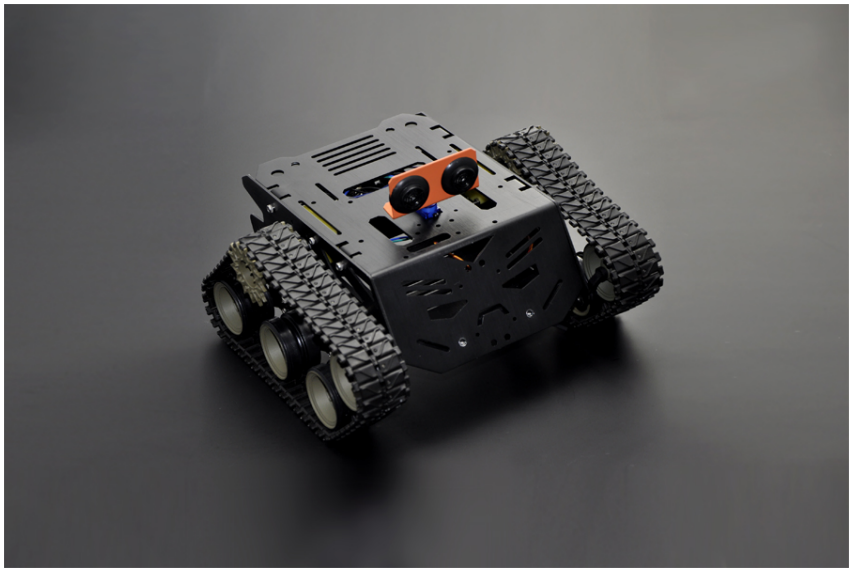
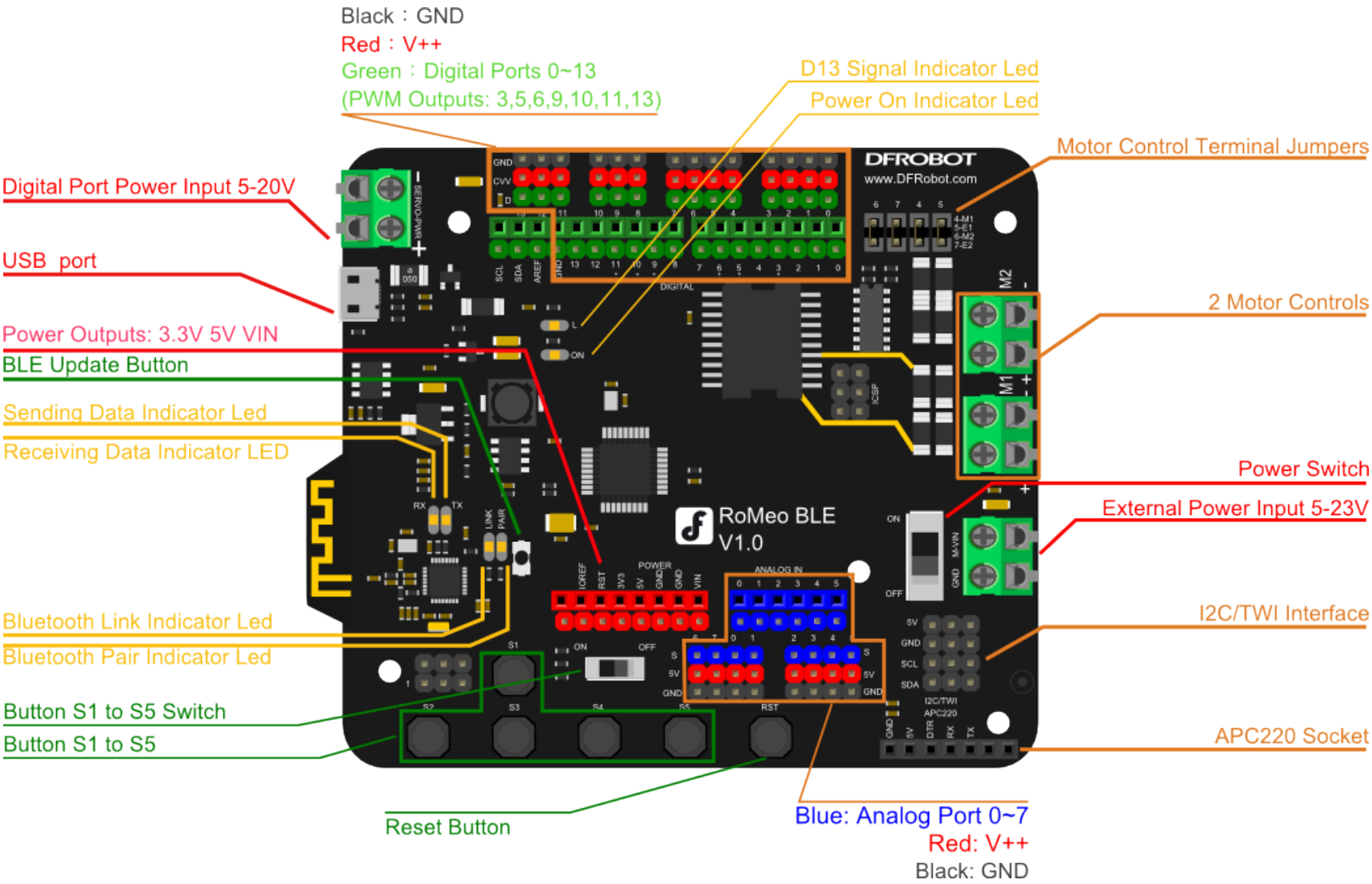


Figure: robotic platform: DFRobot Devastator Tank

The DFRobot Devastator Tank is a mobile robot kit suitable for both educational purposes and hobbyist projects.

- Versatile and robust
- Adaptable and expandable
- Suitable for various age groups and skill levels

RoMeo BLE V1.0



Technical Specifications

Microcontroller: ATmega328
Wireless Communication: Bluetooth 4.0
Digital I/O Pins: 14 pins
Analog Input Pins: 8 pins
PWM Channels: 6 pins
Serial Communication: UART interfaces
Connectors: Various connectors for sensors, servo motors, etc.

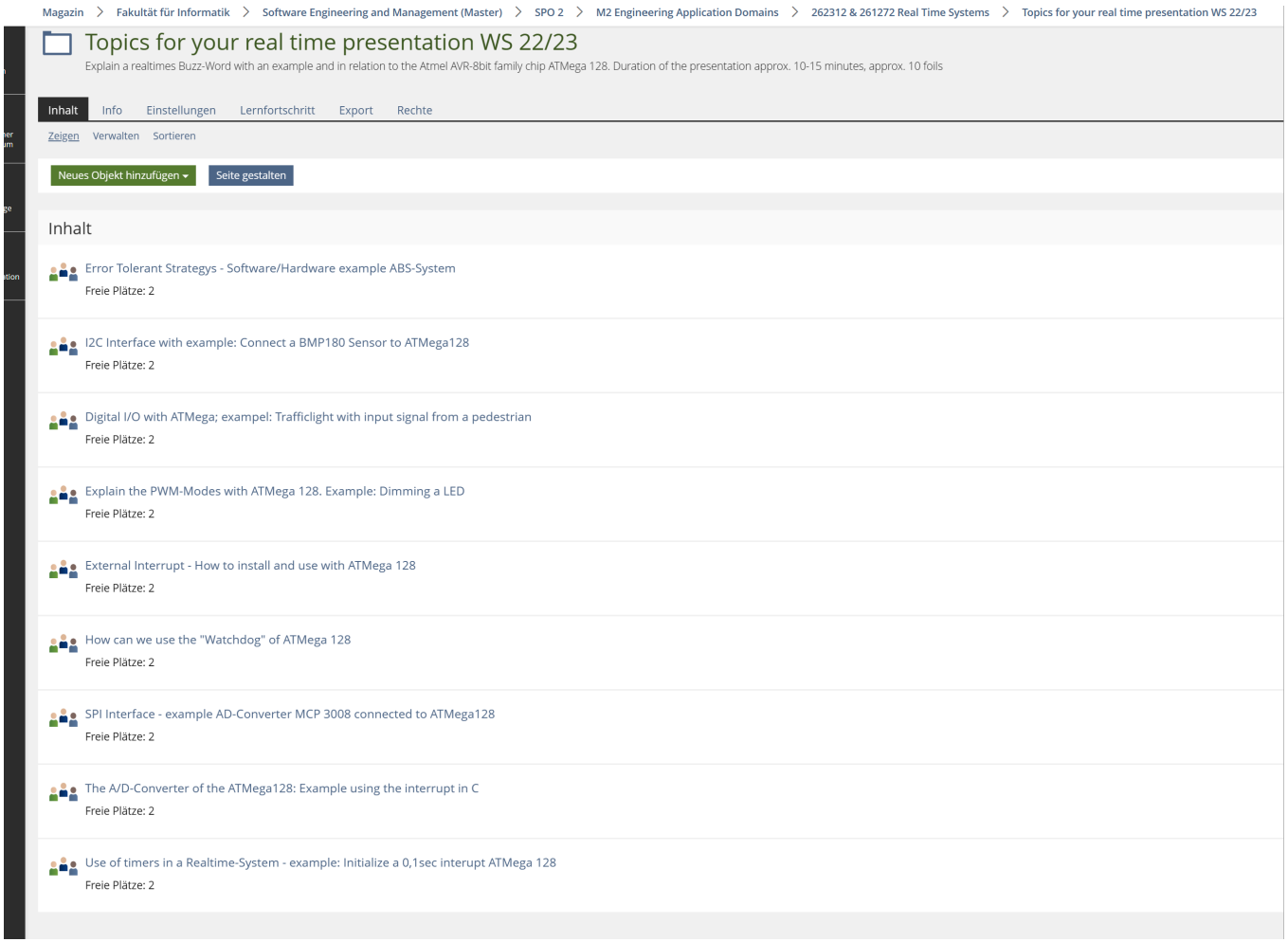
Important links

Documentation Board: DFRobot RoMeo BLE
Documentation Assembly: Instruction Manual
Platformio and Bootloader : UNO (RoMeo Board)
Tutorial : Bluetooth Connection
I/O Pins : Youtube Same µC

Dates

Documentation Submission: January 19th.
Semcon: January 19th. 15:00-17:00
Presentation Date: To be announced.

Little Showcase



Tutorial supervision

Office Hours: Tuesdays, as per the schedule.
Office Location: A328
Appointment Scheduling: Marc.Nauendorf@Hs-Heilbronn.de