

GPS LoRaWAN Tracker



22.08.2020
Andreas Kurm

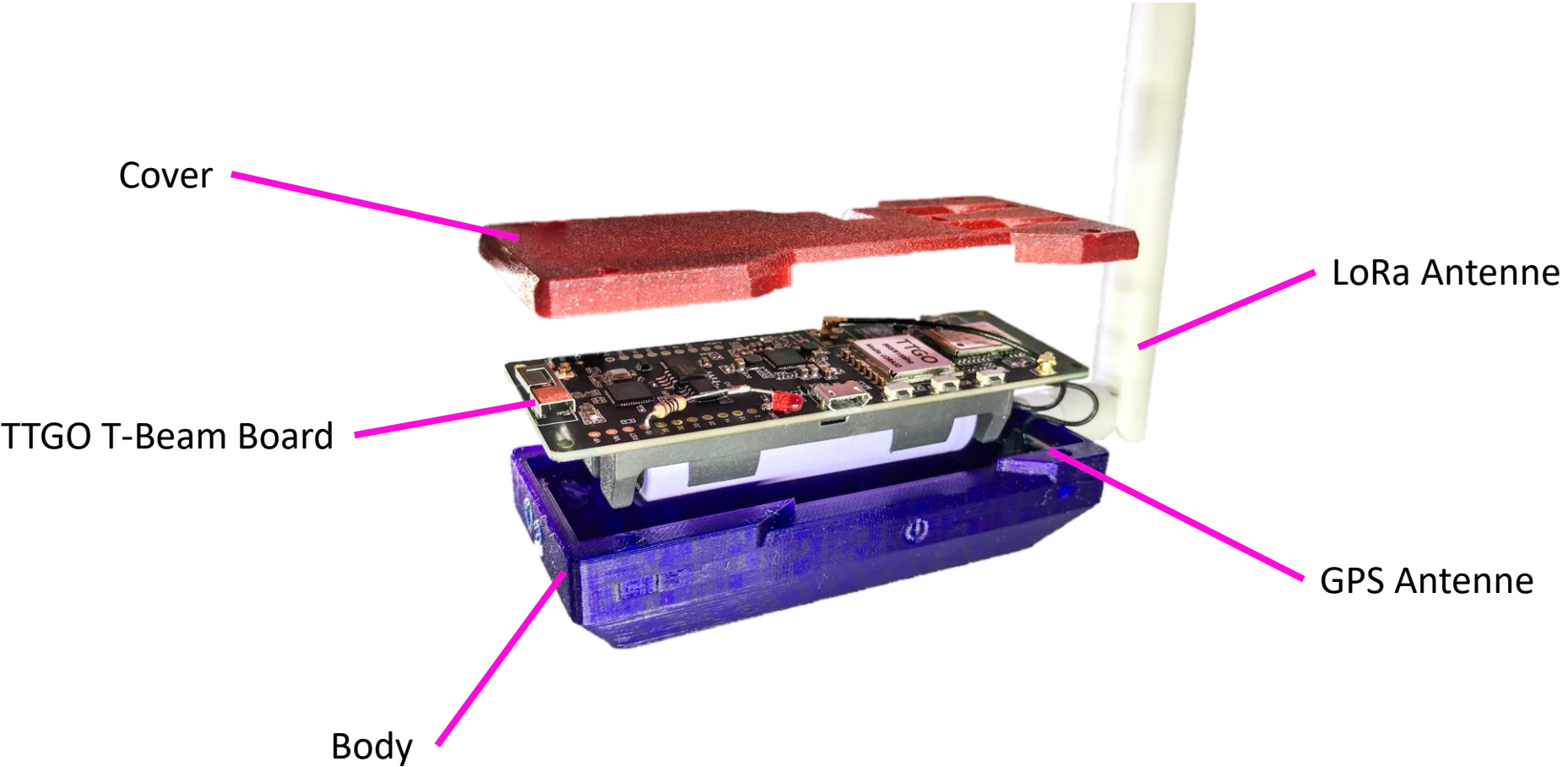
Reichweite eines Gateways?



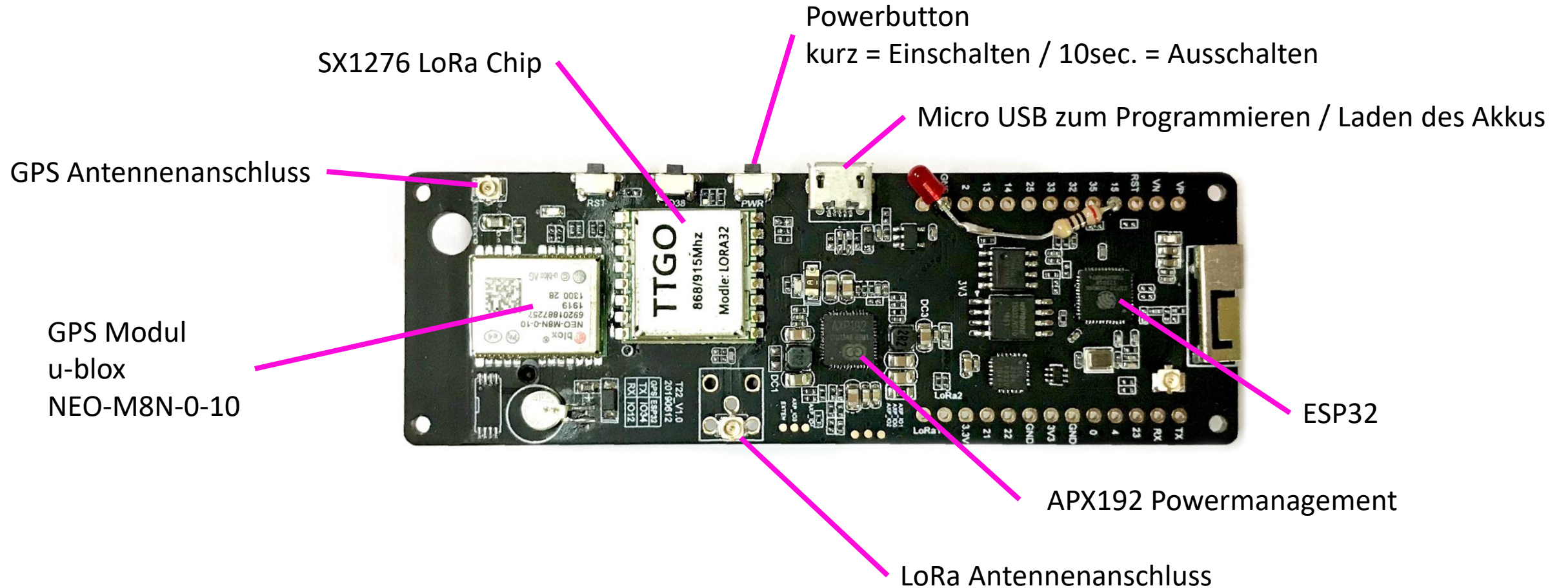
Mikrotik lora8, in Troisdorf Spich



Aufbau des Trackers



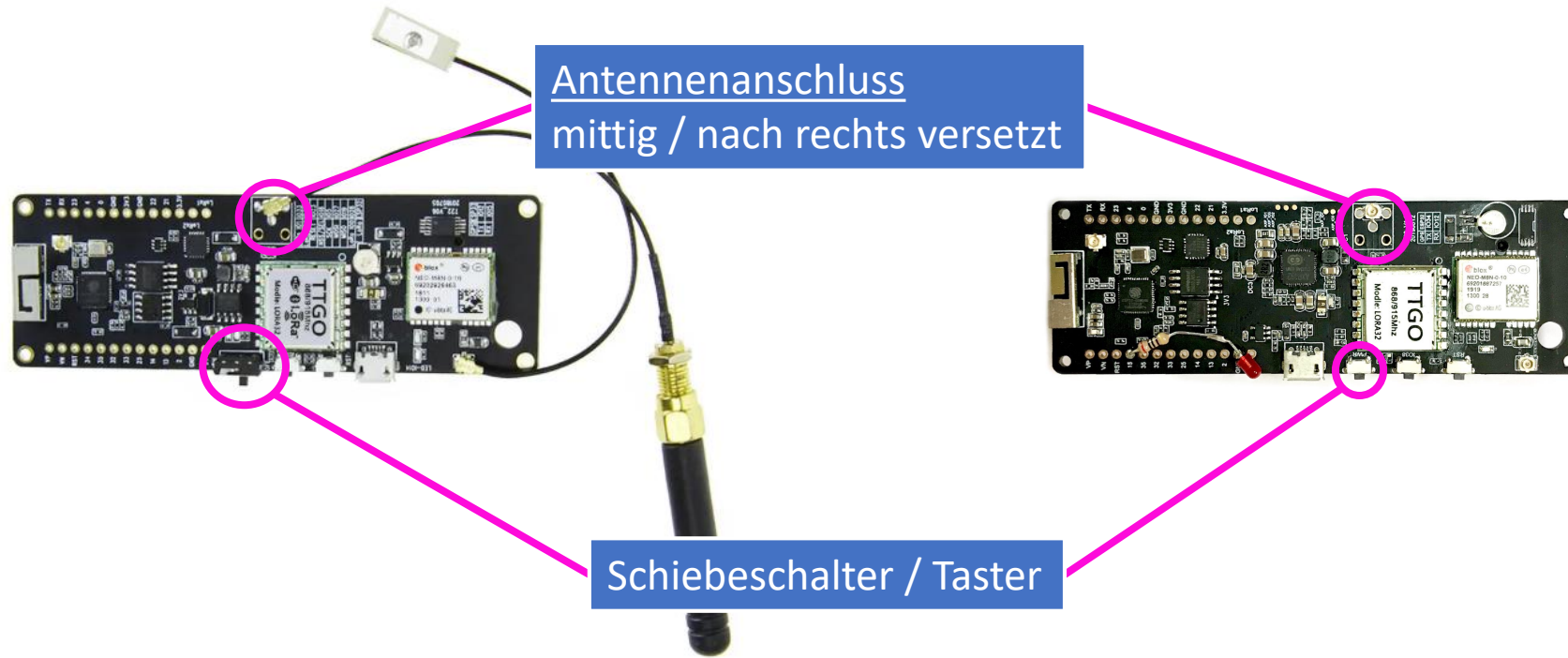
Das TTGO T-Beam Board



Unterschiede der verschiedenen Board Versionen

Rev 0.9

Rev 1.0 & 1.1



Unterschiedliche Antennenanschlüsse

Fest eingelöteter seitlicher Anschluss



Connector für Antennenkabel



Software über die Arduino IDE hochladen

<https://github.com/kizniche/ttgo-tbeam-ttn-tracker>



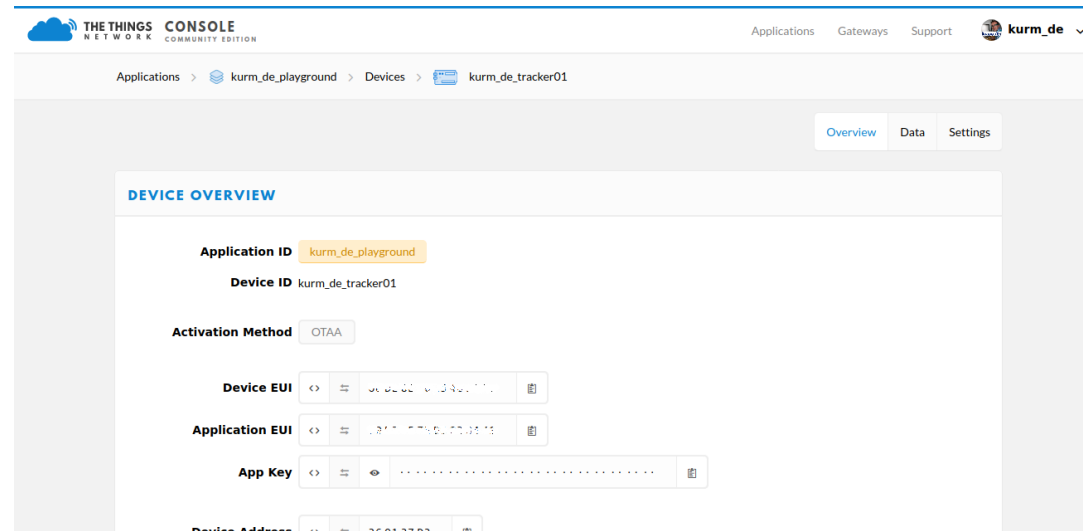
```
main - configuration.h | Arduino 1.8.12
Datei Bearbeiten Sketch Werkzeuge Hilfe
main configuration.h credentials.h fonts.h gps im es.h
// If using a single-channel gateway, uncomment this next option and
// #define SINGLE_CHANNEL_GATEWAY 0

// If you are having difficulty sending messages to TTN after the fi
// uncomment the next option and experiment with values (~ 1 - 5)
// #define CLOCK_ERROR 5

#define DEBUG_PORT Serial // Serial debug port
#define SERIAL_BAUD 115200 // Serial debug baud rat
#define SLEEP_BETWEEN_MESSAGES 0 // Do sleep between mess
#define SEND_INTERVAL 10000 // Sleep for these many
#define MESSAGE_TO_SLEEP_DELAY 5000 // Time after message be
#define LOGO_DELAY 5000 // Time to show logo on
#define LORAWAN_PORT 10 // Port the messages wil
#define LORAWAN_CONFIRMED_EVERY 0 // Send confirmed messag
#define LORAWAN_SF DR_SF7 // Spreading factor
#define LORAWAN_ADR 0 // Enable ADR
#define GPS_WAIT_FOR_LOCK 5000 // Wait 5s after every b

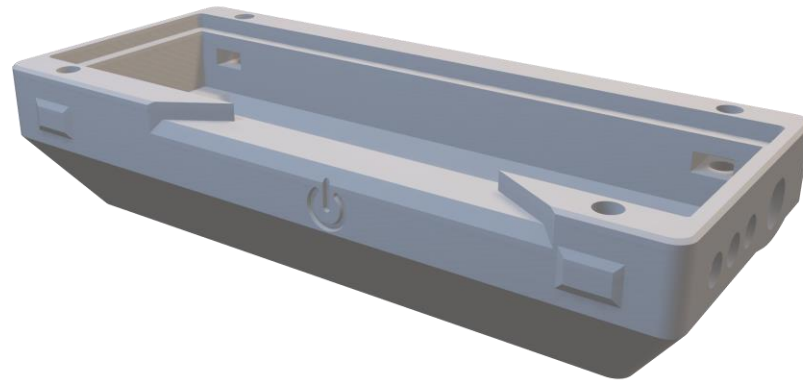
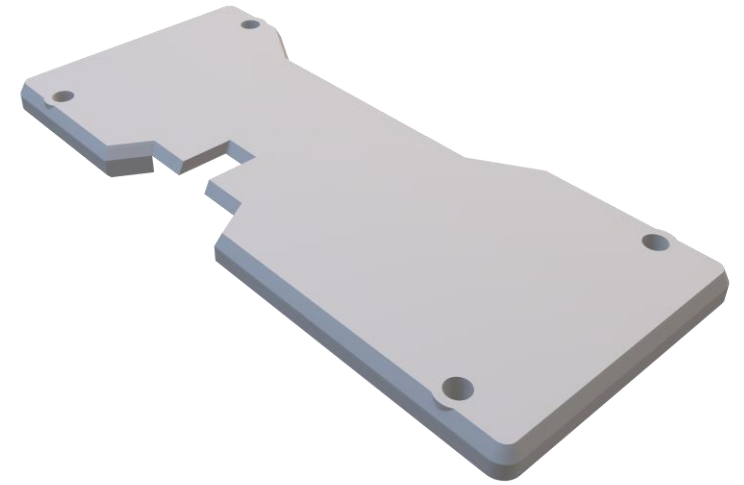
// -----
// DEBUG
// -----

1 Arduino Nano, ATmega328P (Old Bootloader) auf /dev/ttyUSB0
```



Links zu den 3D Druck Teilen

- 3D Druck Teile auf Thingiverse
 - <https://www.thingiverse.com/thing:4576325>
- GCODE Dateien für Prusa Drucker:
 - <https://www.prusaprinters.org/prints/39123-ttgo-t-beam-gps-lorawan-tracker-casehousing>



Links

- nächstes IoT Treffen am 27.08. ab 19:00 Uhr: <https://www.freie-netzwerker.de/community-treffen/>
- Offene Telegram Gruppe: <https://t.me/TTNRheinSieg>
- Community TTN-Rhein-Sieg: <https://www.thethingsnetwork.org/community/rhein-sieg/>