LSM6DSO-ESP8266 IMU
data collection prototype
Documentation

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Introduction

This documentation will guide you through the components list, and how to implement the device in order to collect IMU data from the sensor and send it through MQTT to a broker.

Components

- LSM6DSO [1]
- ESP8266 [2]
- switch [3]
- Voltage regulator 5V [4]
- 0.33 uF capacitor [5]
- 0.1 uF capacitor [6]
- 9V battery [7]
- 9V battery connector [11]
- 3D Case

PCB

- Schematic [8]
- Gerber file [8]

Print the PCB following the schematic or by using the project to generate the file for your printer. Solder the components following the components.

Software

- Data collection and transmission software [9]

Clone the software and do the modifications required in the user manual [12].

3D Case

- CAD Files [10]

[1] - https://www.st.com/resource/en/datasheet/lsm6dso.pdf

[2] - https://www.espressif.com/sites/default/files/documentation/0a-esp8266ex_datasheet_en.pdf

[3] - https://www.lcsc.com/product-detail/Toggle-Switches_SUNGMUN-BSI-10_C411269.html

[4] - https://botland.store/withdrawn-products/1117-linear-voltage-regulator-ldo-5v-lm1117mp-smd-sot223.html

[5] - https://www.donberg.ie/catalogue/passive_components/capacitors/0.33uf-250v.html

[6] - https://www.donberg.ie/catalogue/passive_components/capacitors/0.1uf-100v.html

[7] - https://www.clasohlson.com/se/VARTA-Longlife-Power-9-V-batteri/p/32-2085

[8] - https://github.com/GbrlBln/PCB-Case

[9] - https://github.com/GbrlBln/LSM6-ESP--Git-

[10] - https://github.com/GbrlBln/PCB-Case

[11] - https://www.digikey.se/en/products/detail/keystone-electronics/232/303804

[12] - https://github.com/GbrlBln/PCB-Case/blob/main/S3-DRIIUM-98_AC1.pdf