

# GPA-UWT-788

Variant: [No Variations]

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s.11

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## Introduction

This board manages power control and distribution for my Octapod.

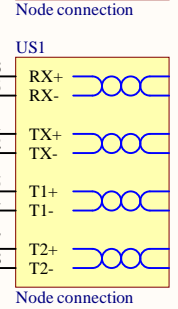
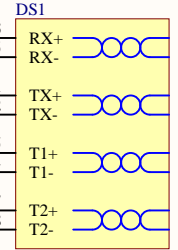
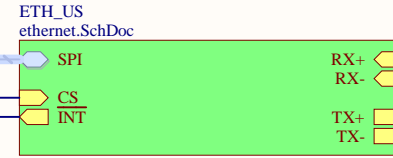
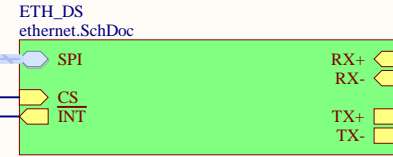
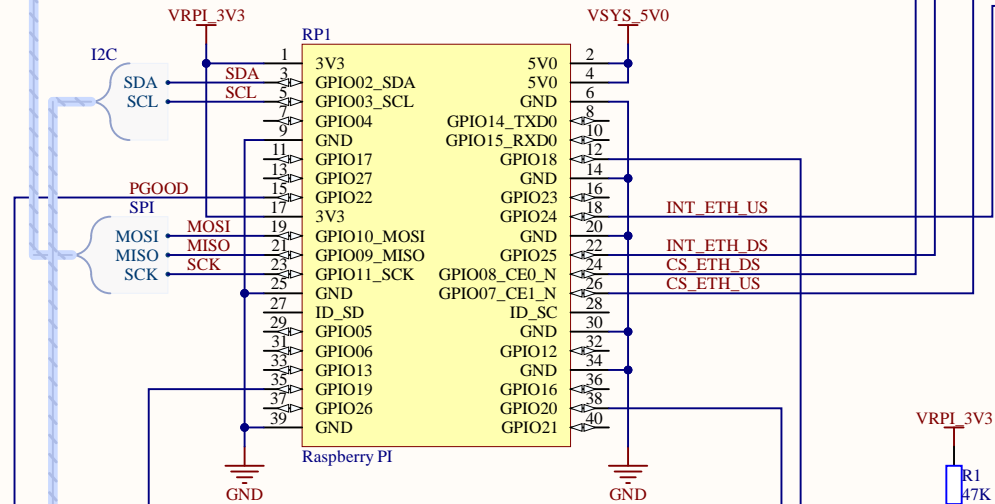
The power board has the following responsibilities:

- \* Regulate servo voltage from 2 or 3S Li-ion battery packs.
- \* Measure voltage and current to servos.
- \* Supply the main board with power (not regulated).
- \* Provide soft-start functionality for servos.
- \* Control power on/off to servos.
- \* Protect batteries with UVLO and OVLO.
- \* USB-C supply.
- \* Provide an interface for both main board MCU(I2C) and NVM(serial-SCPI).

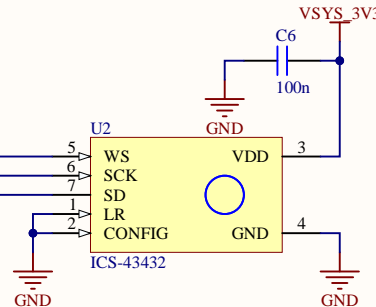
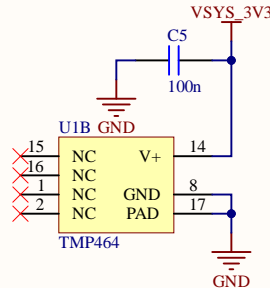
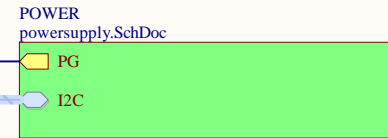
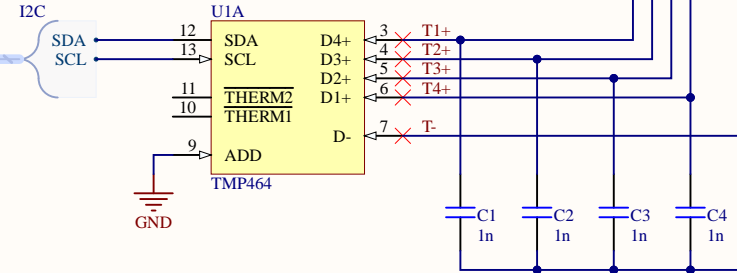
## Specifications

- \* Serial interface
- \* I2C control address:
  - CONTrol: 0x70
  - EYEs: 0x48
- \* I2C slave addresses:
  - USB-PD: 0x28
  - AUX-isense: 0x8A
  - Mux: 0x70 (1,2)
    - Reg-isens: 0x80
    - Leg-control: 0x60-0x63
    - Leg-isense: 0x70-0x73

# Raspberry PI Zero



## Temperature sense



Title **GPA-UWT-788 - Node**

GPA Robotics

Size: **A4**

Number: **2**

Revision: **1**

Date: **2021-07-14**

Time: **23:26:55**

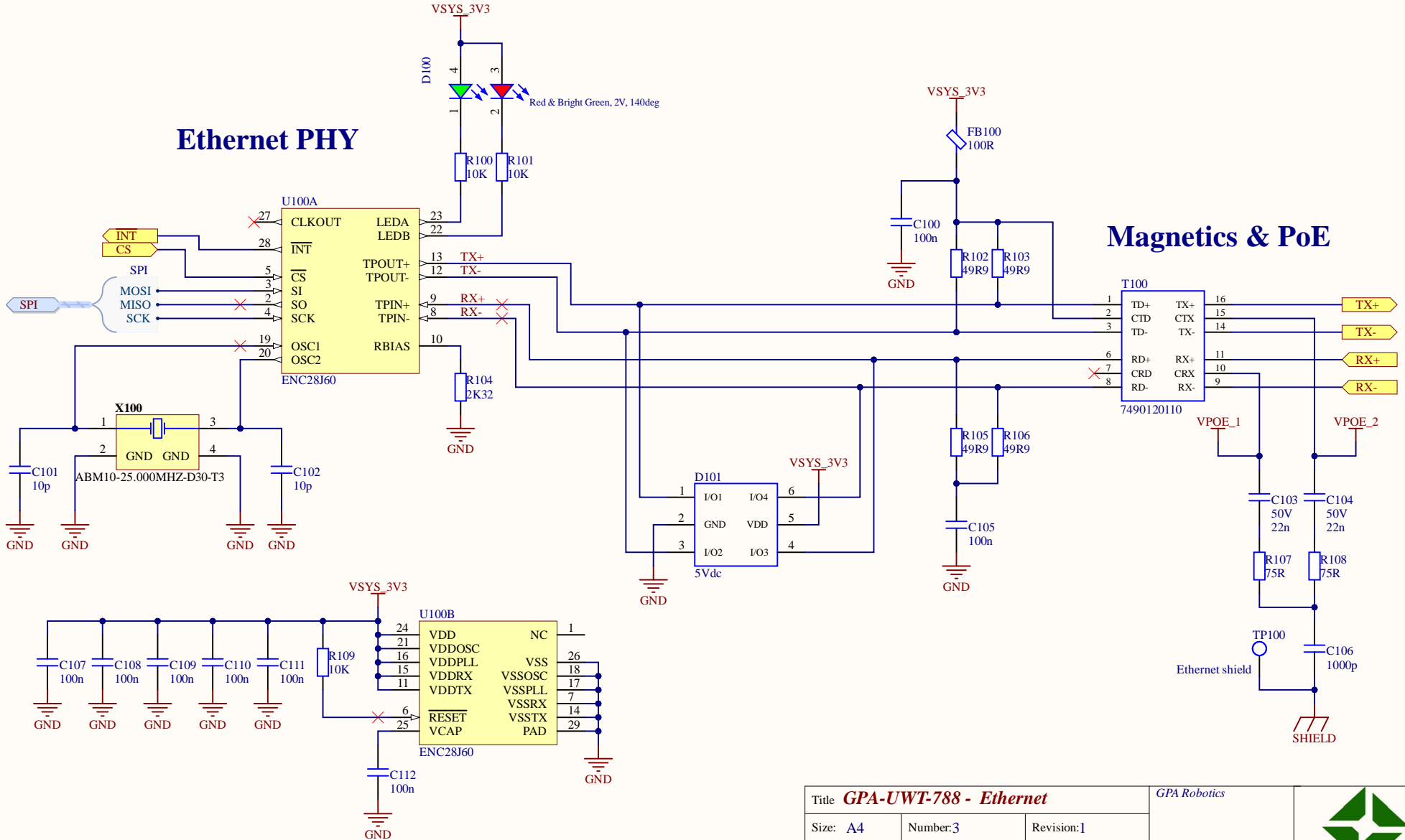
Sheet **2** of **4**

Repo: **TODO**



# Ethernet PHY

# Magnetics & PoE



Title **GPA-UWT-788 - Ethernet**

GPA Robotics

Size: **A4**

Number: **3**

Revision: **1**

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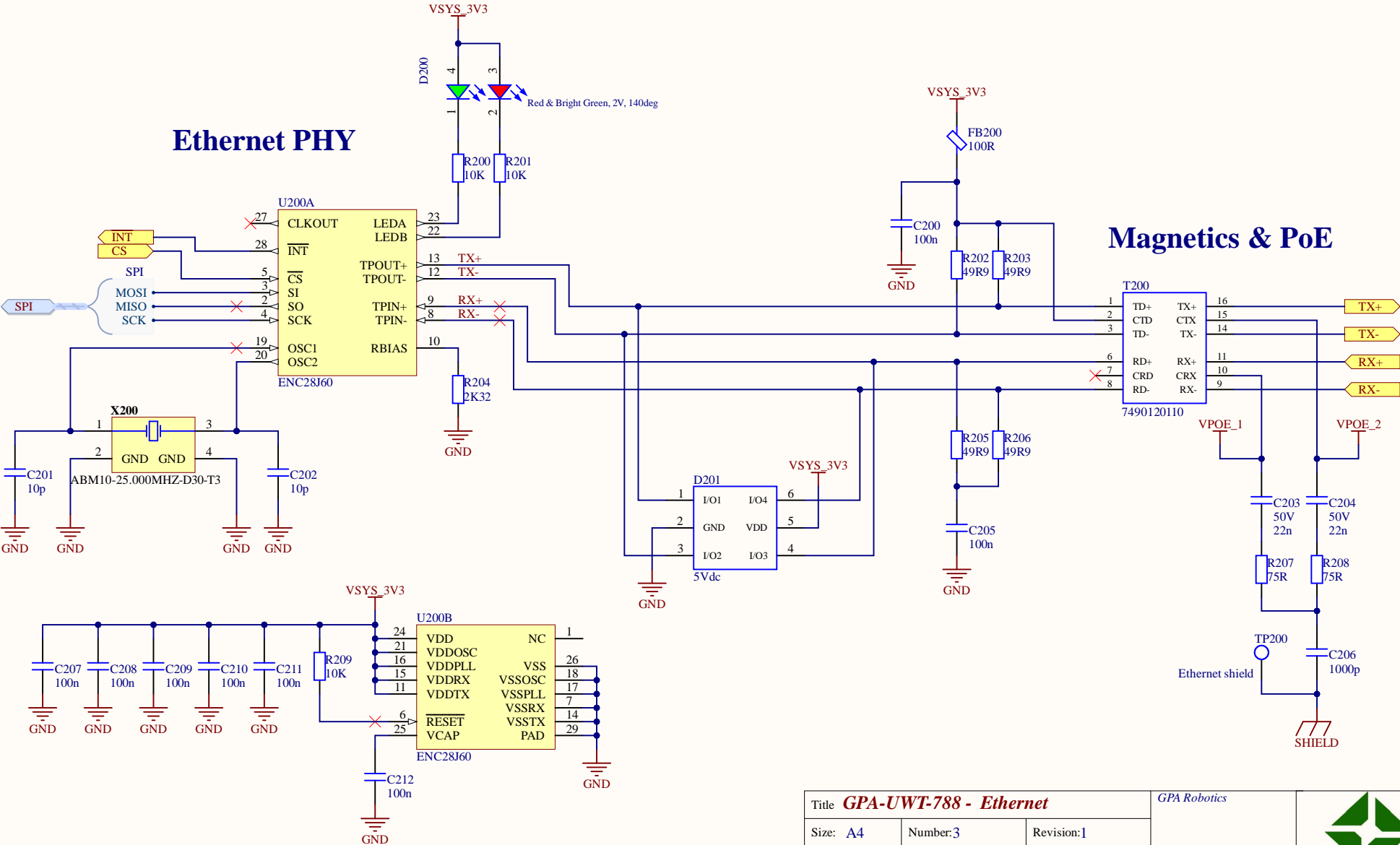
Sheet **3** of **4**

Repo: **TODO**



# Ethernet PHY

# Magnetics & PoE



Title **GPA-UWT-788 - Ethernet**

GPA Robotics

Size: **A4**

Number: **3**

Revision: **1**

Date: **2021-07-14**

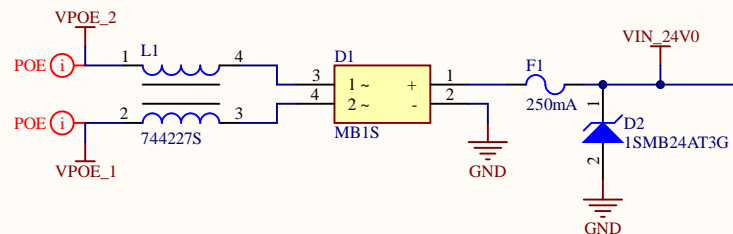
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Sheet **3** of **4**

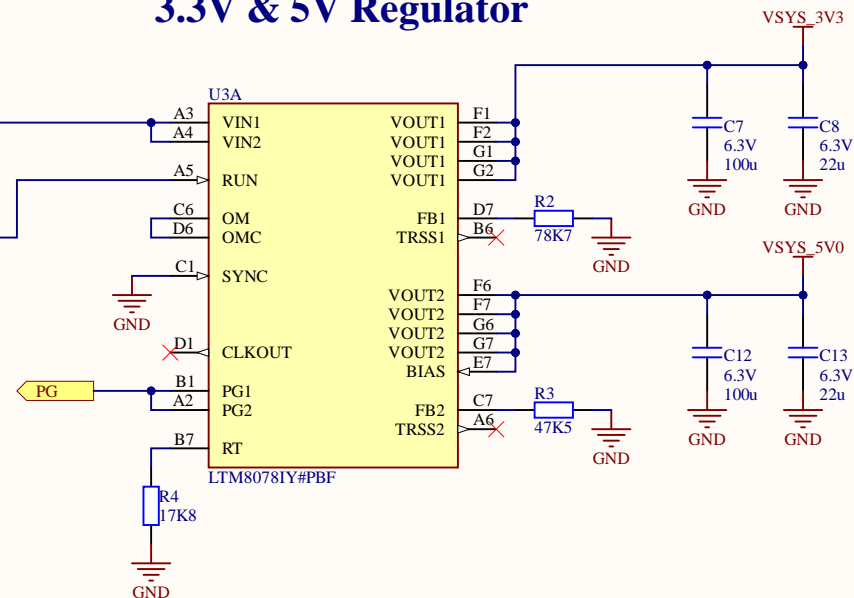
Repo: **TODO**



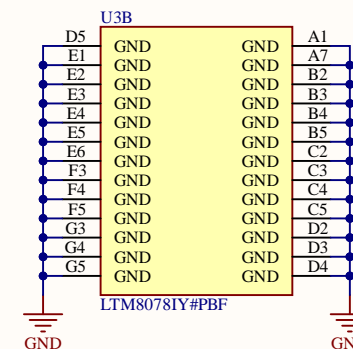
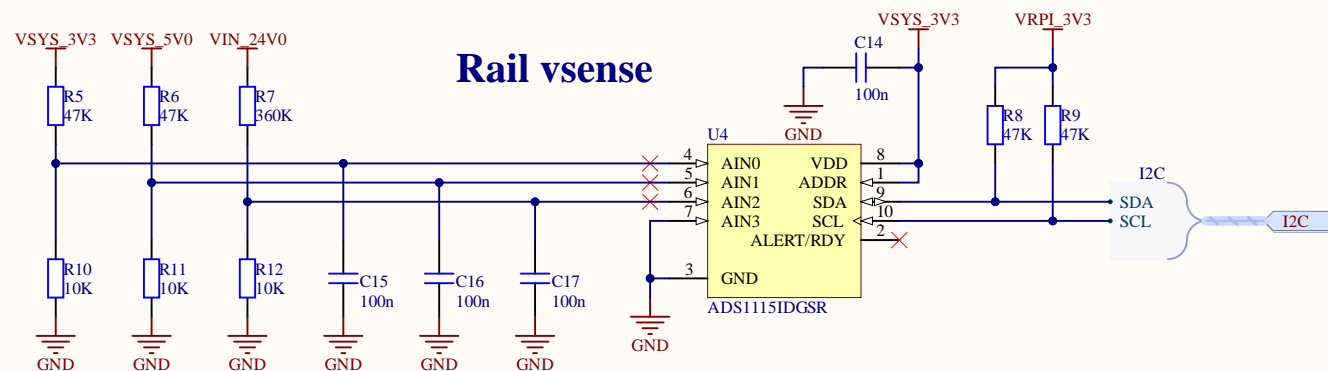
## Input filter



## 3.3V & 5V Regulator



## Rail vsense



Title **GPA-UWT-788 - Power supply**

GPA Robotics

Size: **A4**

Number: **4**

Revision: **1**

Date: **2021-07-14**

Time: **23:26:55**

Sheet **4** of **4**

Repo: **TODO**

