

Licensed under CERN OHL v.1.2 or later

**AdaCore**

Sheet: /Motor/

File: motor.sch

**Title: O'PAVES Mk-I**

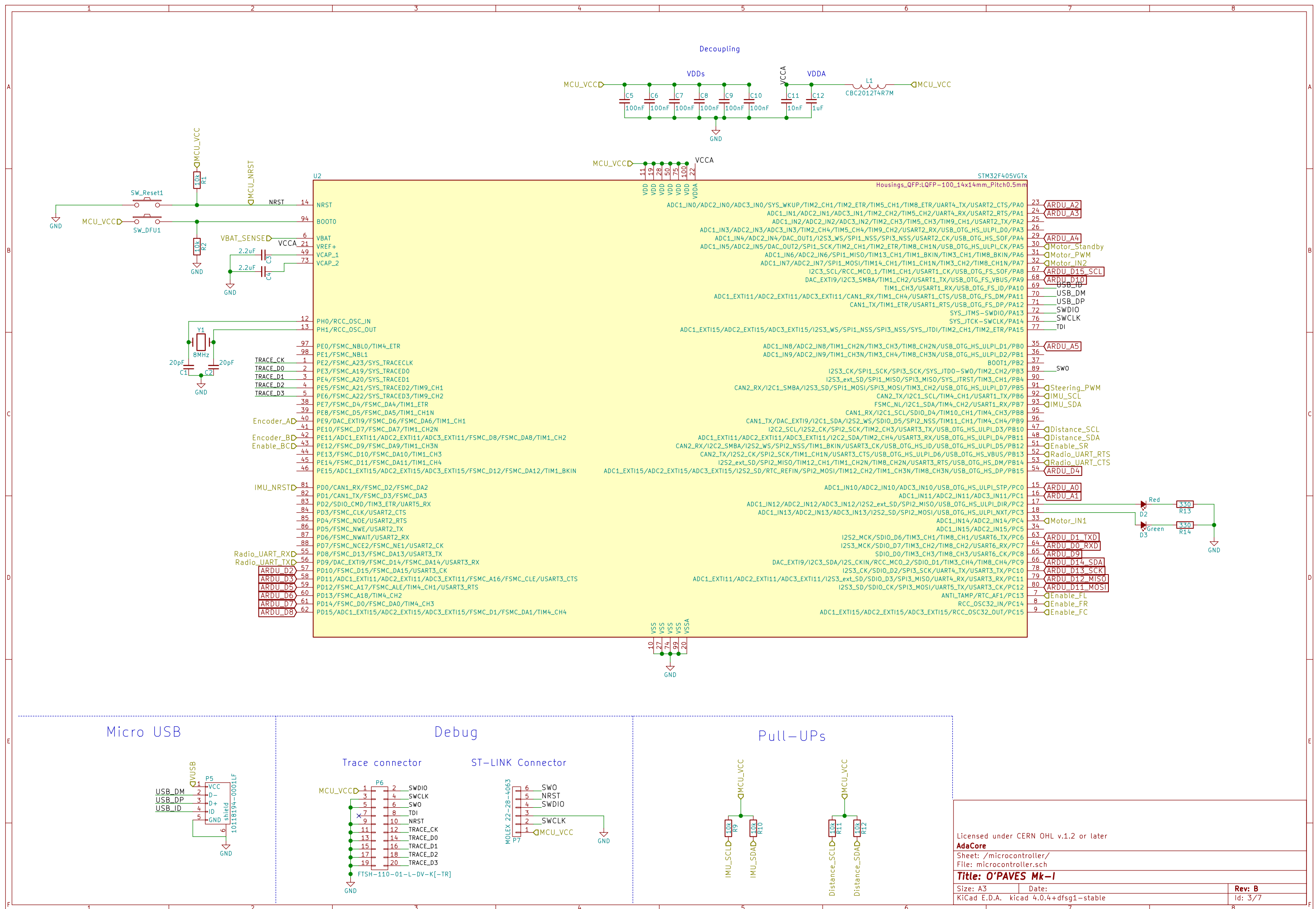
Size: A4

Date:

KiCad E.D.A. kicad 4.0.4+dfsg1-stable

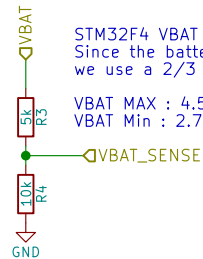
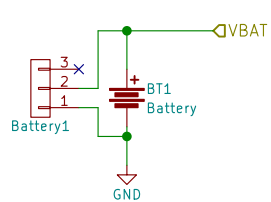
**Rev: B**

Id: 2/7



## Battery

3 Cell NiMH:  
 - Max: 4.5V  
 - Typical: 3.6V  
 - Low: 2.7V

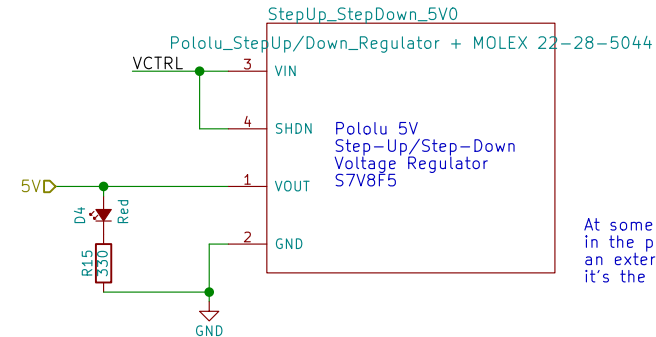


STM32F4 VBAT must be from 1.65V to 3.6V.  
 Since the battery voltage is outside this range,  
 we use a 2/3 voltage divider to adjust it.

VBAT MAX : 4.5V  $\rightarrow$  3V  
 VBAT Min : 2.7V  $\rightarrow$  1.8V

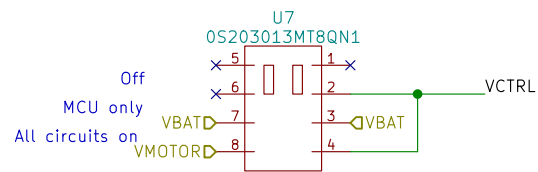
TODO: Reverse polarity protection (maybe)

## 5V step up / step down regulator

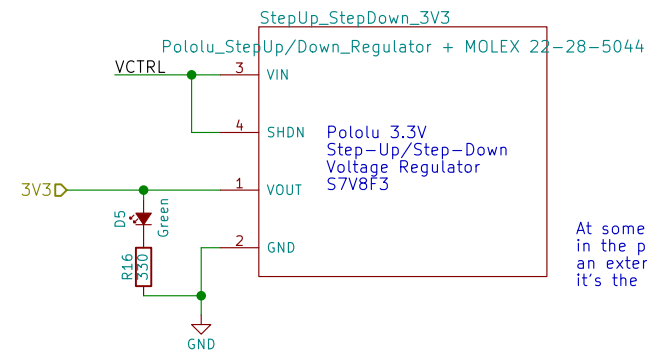


At some point this should be directly  
 in the project rather than relying on  
 an external board. For the moment  
 it's the more convenient solution.

## Master switch



## 3.3V step up / step down regulator



At some point this should be directly  
 in the project rather than relying on  
 an external board. For the moment  
 it's the more convenient solution.

Licensed under CERN OHL v.1.2 or later

AdaCore

Sheet: /Power/

File: power.sch

Title: O'PAVES Mk-I

Size: A4

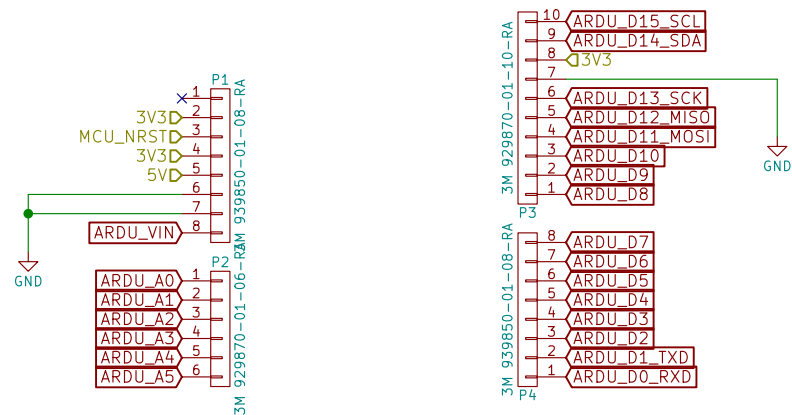
Date:

KiCad E.D.A. kicad 4.0.4+dfsg1-stable

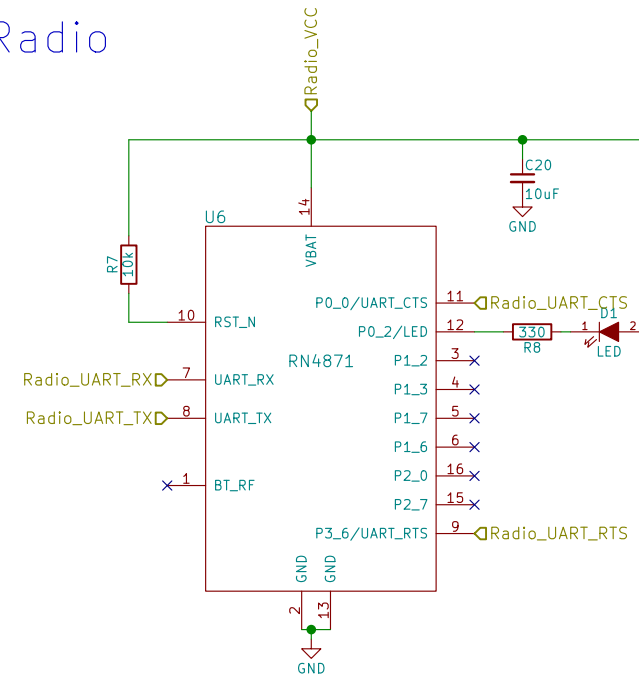
Rev: B

Id: 4/7

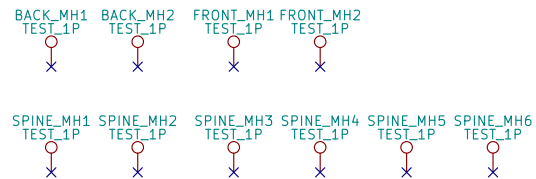
## Arduino UNO like headers



## Radio



## Mounting holes



Licensed under CERN OHL v.1.2 or later

**AdaCore**

Sheet: /Interfaces/

File: interfaces.sch

**Title: O'PAVES Mk-I**

Size: A4

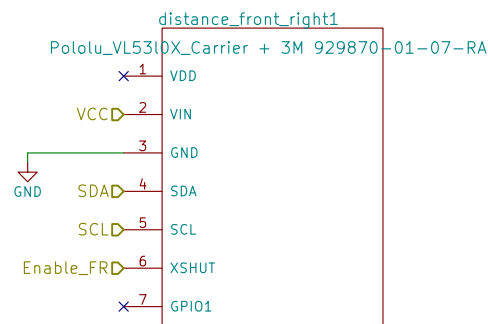
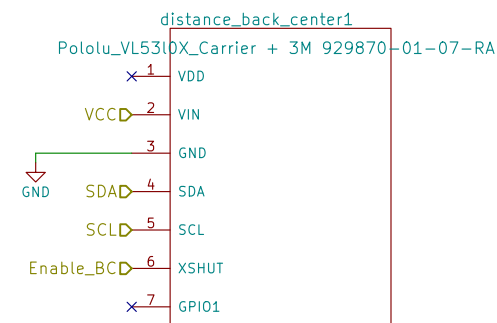
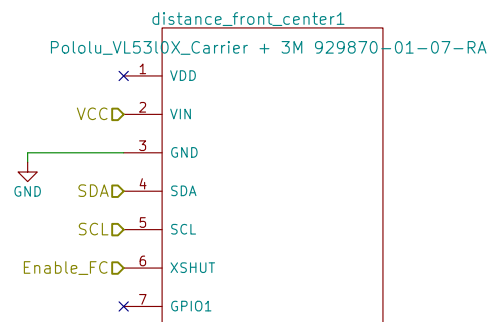
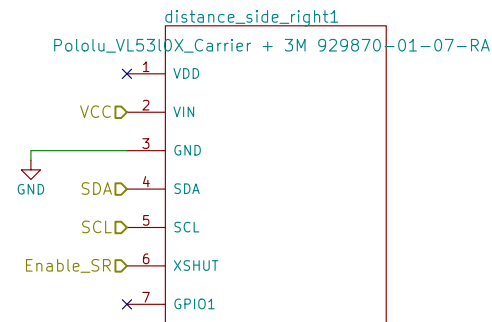
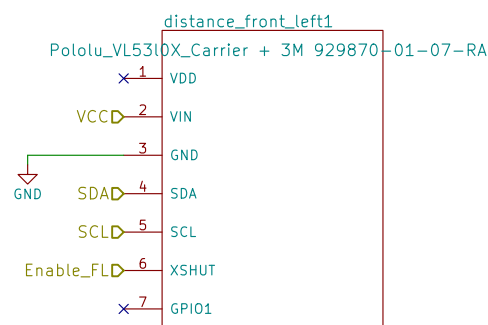
Date:

KiCad E.D.A. kicad 4.0.4+dfsg1-stable

**Rev: B**

Id: 5/7

# Distance sensors



Licensed under CERN OHL v.1.2 or later

**AdaCore**

Sheet: /Sensors/

File: sensors.sch

**Title: O'PAVES Mk-I**

Size: A4

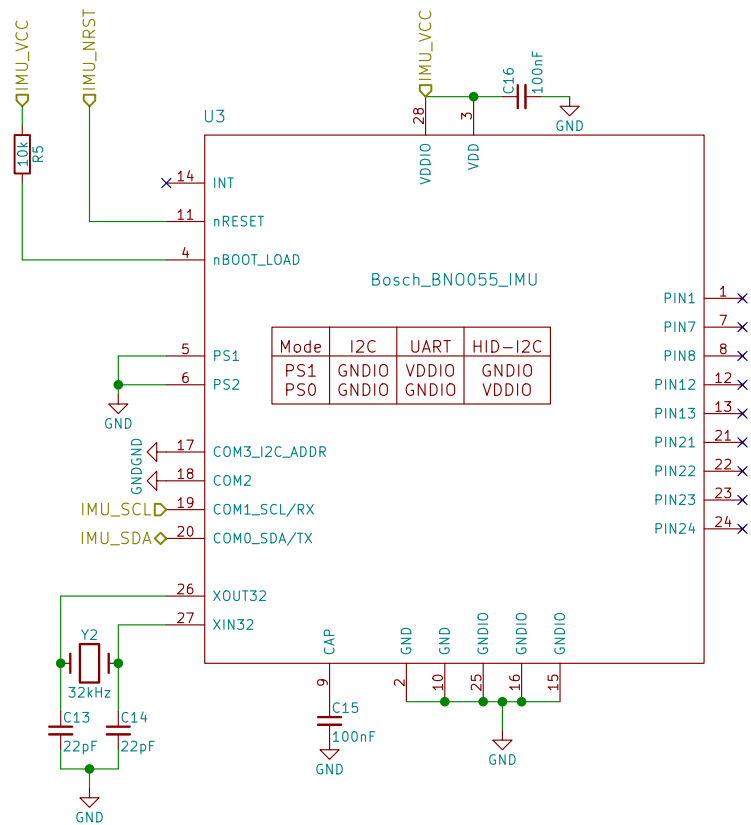
Date:

KiCad E.D.A. kicad 4.0.4+dfsg1-stable

**Rev: B**

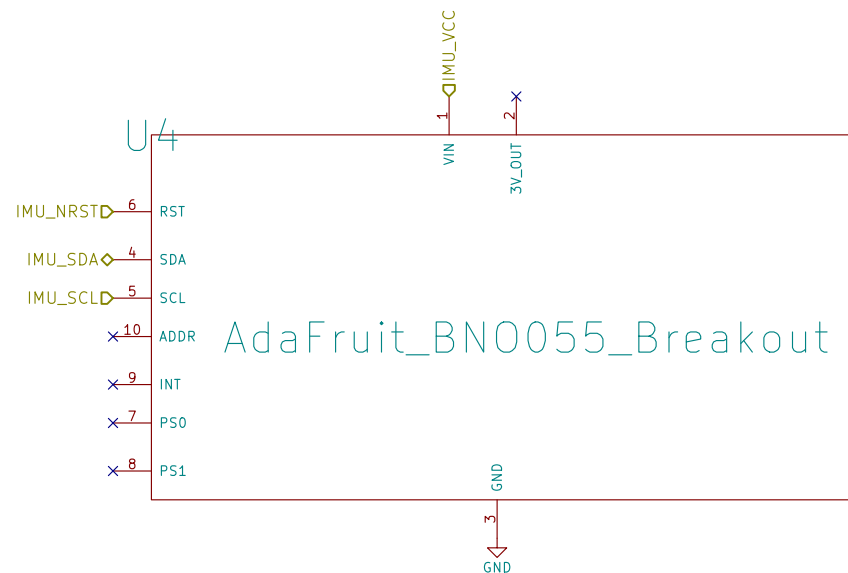
Id: 6/7

# IMU



## Breakout backup

If for some reason it's not possible to use the on-board IMU (bad circuit, too difficult to solder, etc) we will use a breakout board from AdaFruit.



Licensed under CERN OHL v1.2 or later

**AdaCore**

Sheet: /IMU/

File: imu.sch

**Title: O'PAVES Mk-I**

Size: A4

Date:

KiCad E.D.A. kicad 4.0.4+dfsg1-stable

**Rev: B**

Id: 7/7