

jlab

Sheet: /  
File: Soil Power Sensor.kicad\_sch

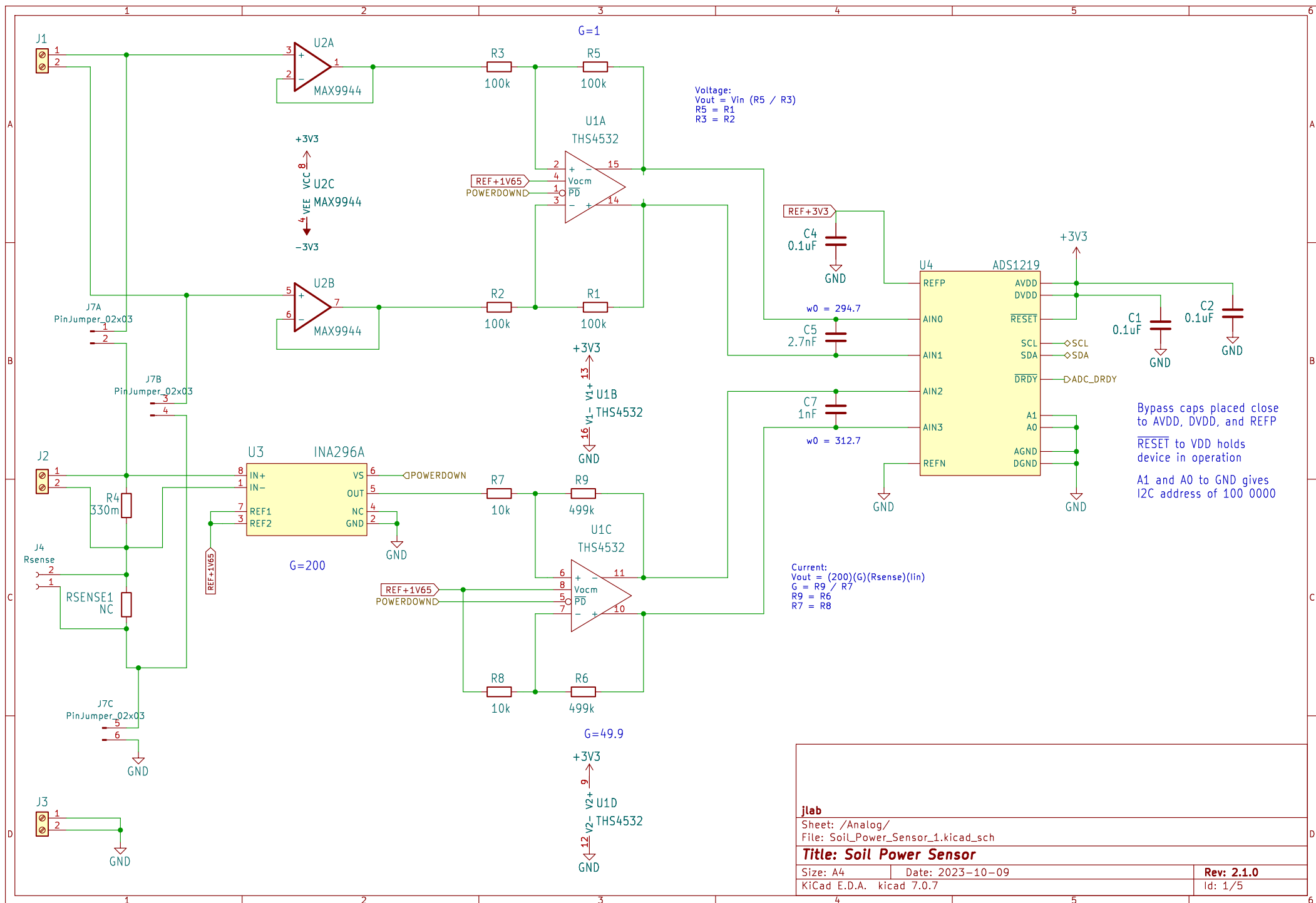
**Title: Soil Power Sensor**

Size: A4 Date: 2023-10-09

KiCad E.D.A. kicad 7.0.7

**Rev: 2.1.0**

Id: 1/5



jlab

Sheet: /Analog/  
 File: Soil\_Power\_Sensor\_1.kicad\_sch

**Title: Soil Power Sensor**

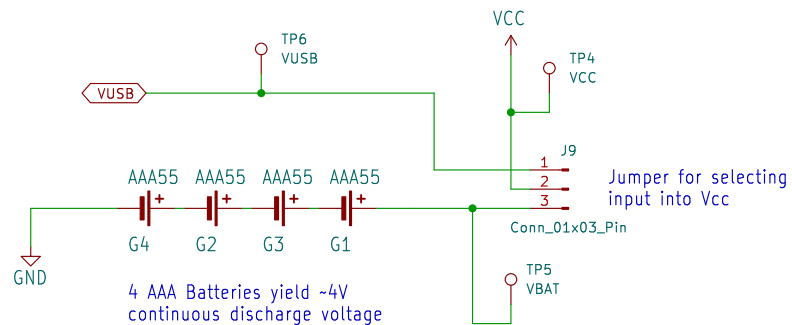
Size: A4 Date: 2023-10-09

KiCad E.D.A. kicad 7.0.7

**Rev: 2.1.0**

Id: 1/5

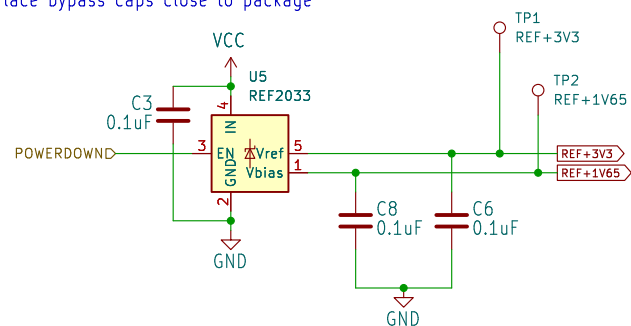
## VCC Input



+3V3 comes from LDO on Wio-E5 mini

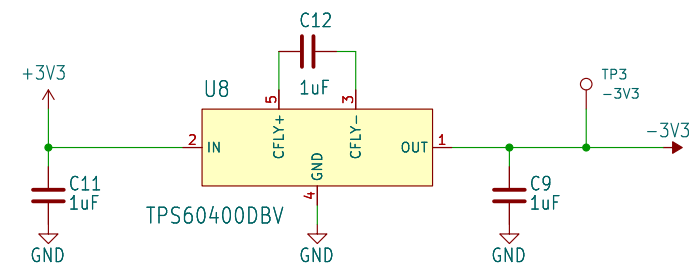
## Reference +3V3 and +1V65

Place bypass caps close to package



## Charge Pump for -3V3 Rail

Place bypass caps close to package



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Sheet: /Power/  
File: Soil\_Power\_Sensor\_2.kicad\_sch

**Title: Soil Power Sensor**

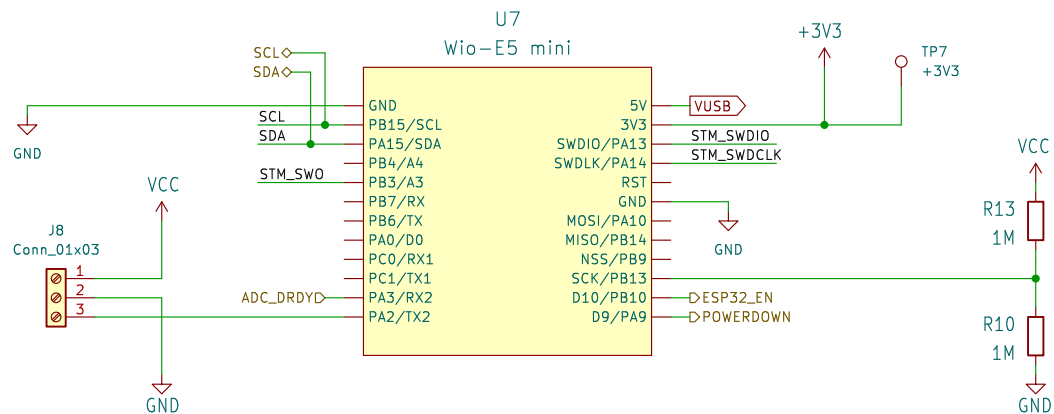
Size: A4 Date: 2023-10-09

KiCad E.D.A. kicad 7.0.7

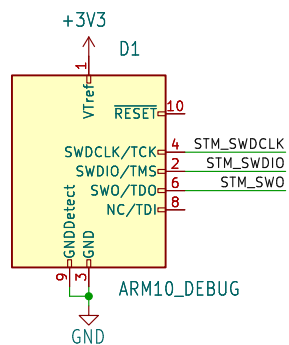
**Rev: 2.1.0**

Id: 2/5

TEROS-12 Sensor has min  
supply voltage of 4V

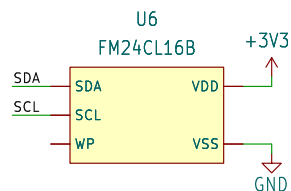


### JTAG Connector



### FRAM

WP (Write Protect) is pulled  
down internally



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Sheet: /STM32/

File: Soil\_Power\_Sensor\_3.kicad\_sch

**Title: Soil Power Sensor**

Size: A4

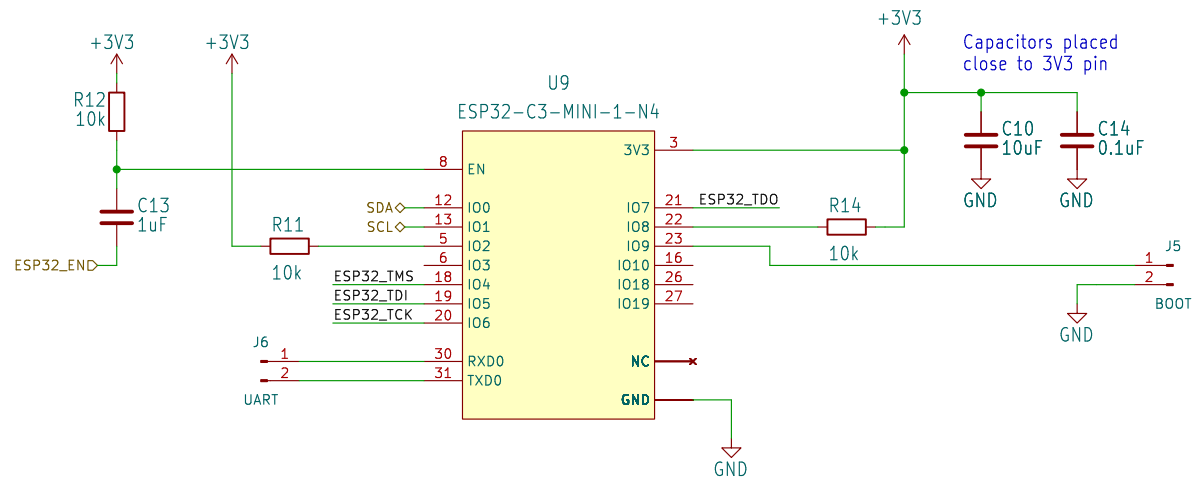
Date: 2023-10-09

Rev: 2.1.0

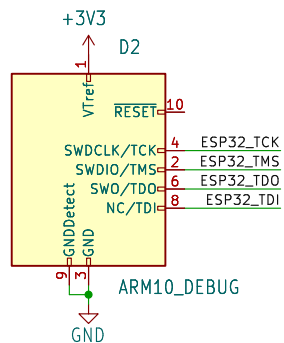
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Id: 3/5

RC Filter for added delay  
(values from ESP32 DS)



### JTAG Connector



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Sheet: /ESP32/

File: Soil\_Power\_Sensor\_4.kicad\_sch

**Title: Soil Power Sensor**

Size: A4 Date: 2023-10-09

KiCad E.D.A. kicad 7.0.7

**Rev: 2.1.0**

Id: 4/5