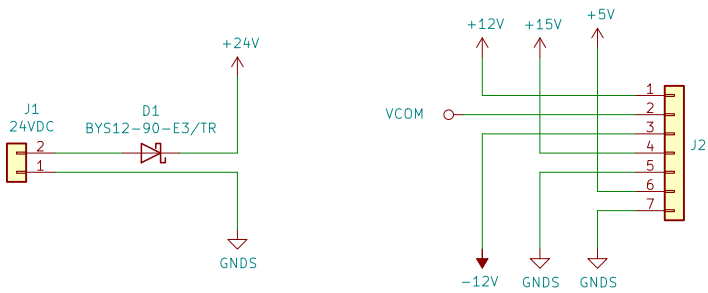


Input/Output Connectors



Pin Assignments:

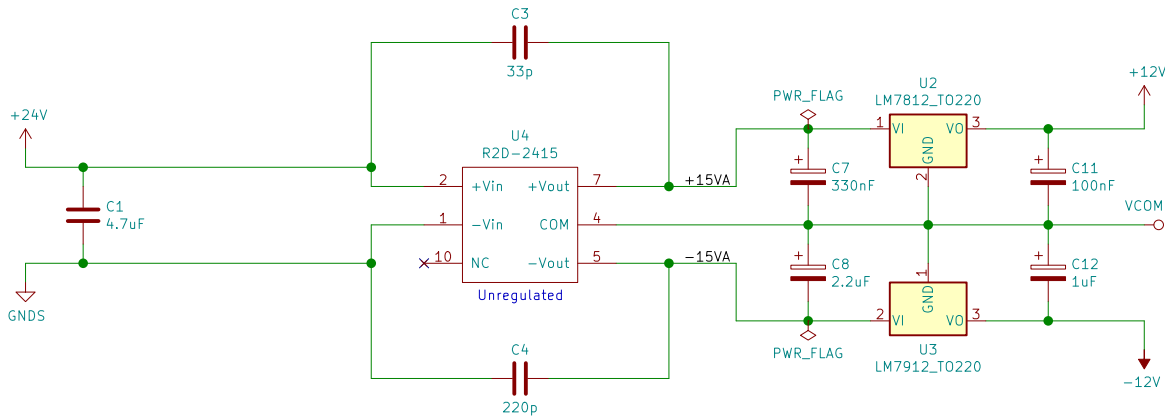
- 1. Analog +12V
- 2. Isolated GND
- 3. Analog -12V
- 4. Fan +15V
- 5. Common GND
- 6. Digital +5V
- 7. Common GND

PSU Module Nominal Current Usage: 65mA

PSU Current Requirements:

- |                  |    |                    |               |
|------------------|----|--------------------|---------------|
| A) Analog +/-12V | -> | CurrentSinkModule: | 30mA          |
| B) Digital +5V   | -> | ControlModule:     | 100mA         |
| C) +15V Fans     | -> | Fans (x4):         | 150mA (700mA) |

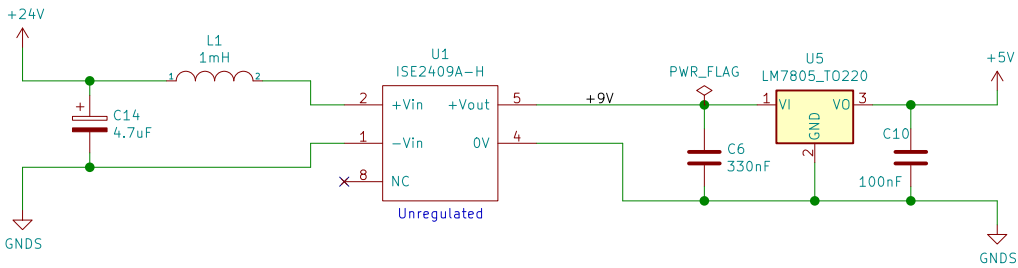
A) Analog PSU



HS1 SK 480/50 5A

Shared Between Analog/MCU regulators

B) Microcontroller PSU

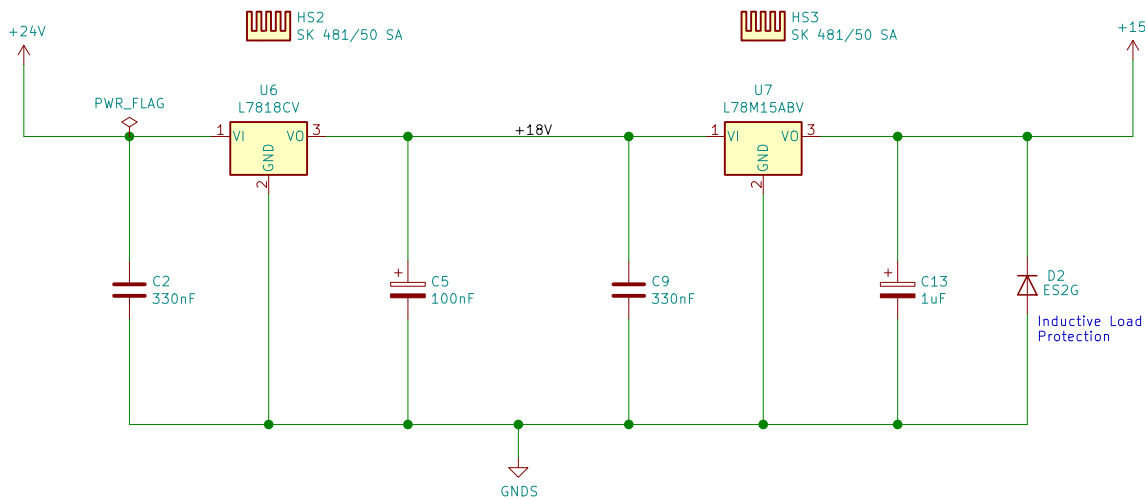


C) Fan PSU

Thermal Spec:  
Amb: 30C  
7818: 5K/W  
7815: 3K/W  
SK481: 5.5K/W

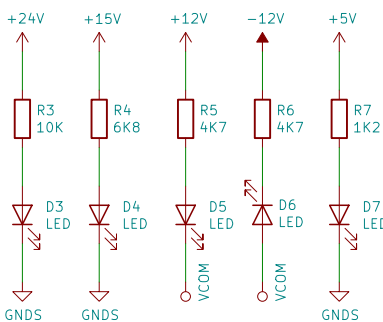
U6 JC Power Dissipation:  $(24V-18V) \times 0.7A = 4.2W$   
U6 JC Temp:  $5 \times 4.2 = 21 \text{ degC}$   
HS2 Temp =  $4.2 \times 5.5 = 23.1 \text{ degC}$   
Total U6 Temp =  $30 + 21C + 23.1 = 74 \text{ degC}$

U7 JC Power Dissipation:  $(18V-15V) \times 0.7A = 2.1W$   
U7 JC Temp:  $3 \times 2.1 = 6.3 \text{ degC}$   
HS3 Temp =  $2.1 \times 5.5 = 11.5 \text{ degC}$   
Total U7 Temp =  $30 + 6.3C + 11.5 = 47.8 \text{ degC}$



PowerFlags

PowerFlags.sch



Sheet: /  
File: ExternRegulatedConverter.sch

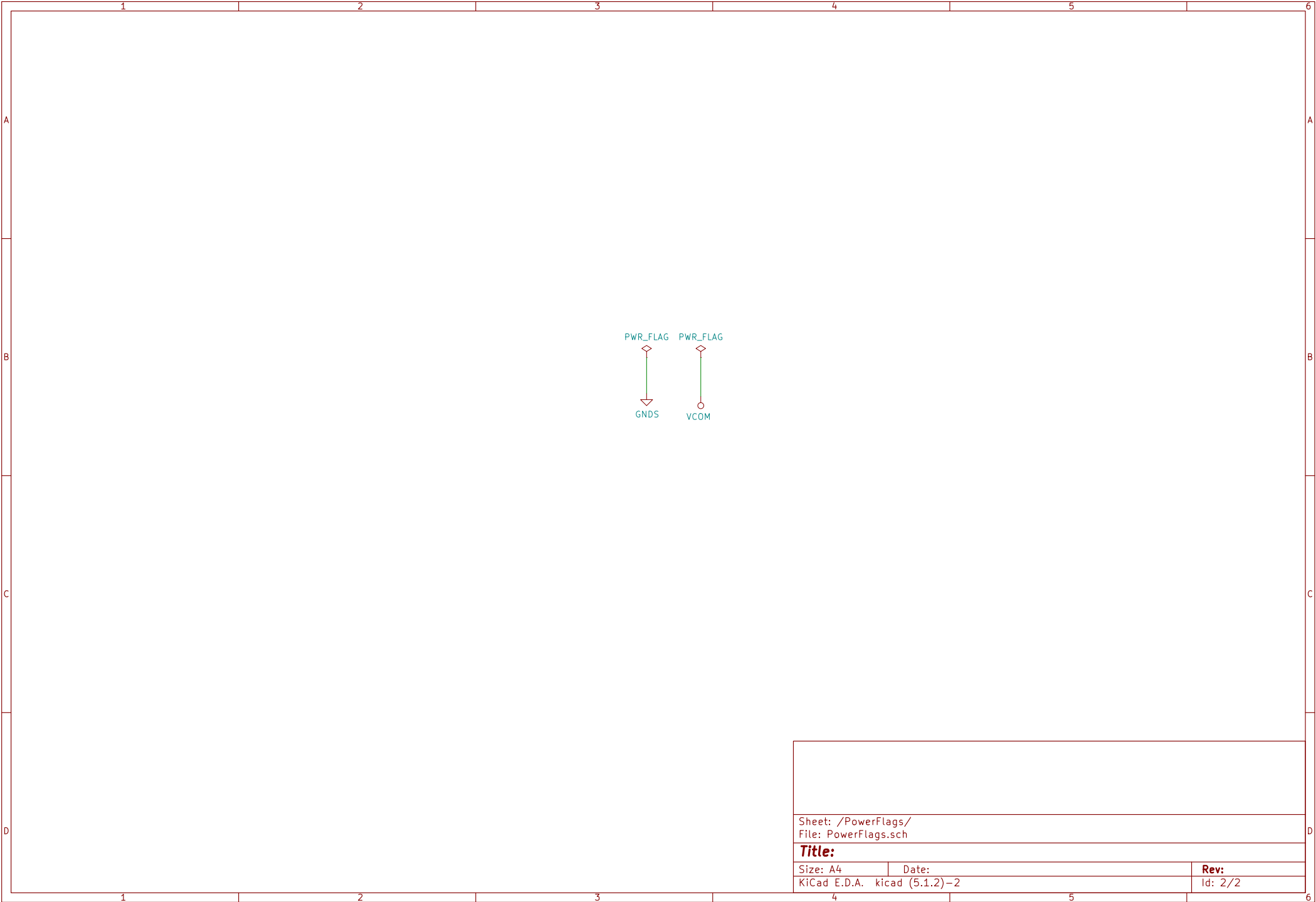
Title:

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KiCad E.D.A. kicad (5.1.2)-2

Date:

Rev:

Id: 1/2



Sheet: /PowerFlags/ File: PowerFlags.sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad (5.1.2)-2		Id: 2/2