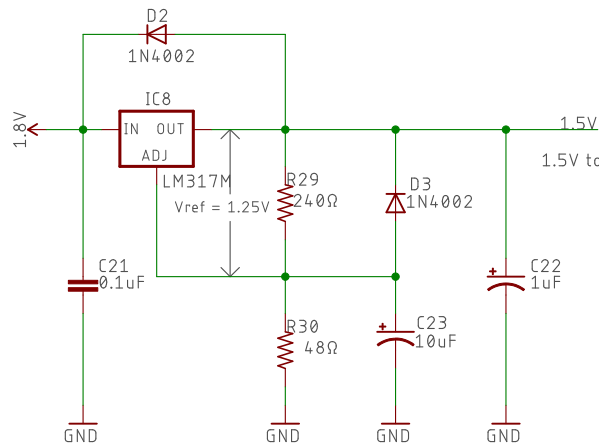


1.5v Supply



1.5V to 37V, 500mA

Useful Notes

$$V_{out} = 1.25(1 + R2/R1)$$

$$R2 = R1((V_{out}/1.25) - 1)$$

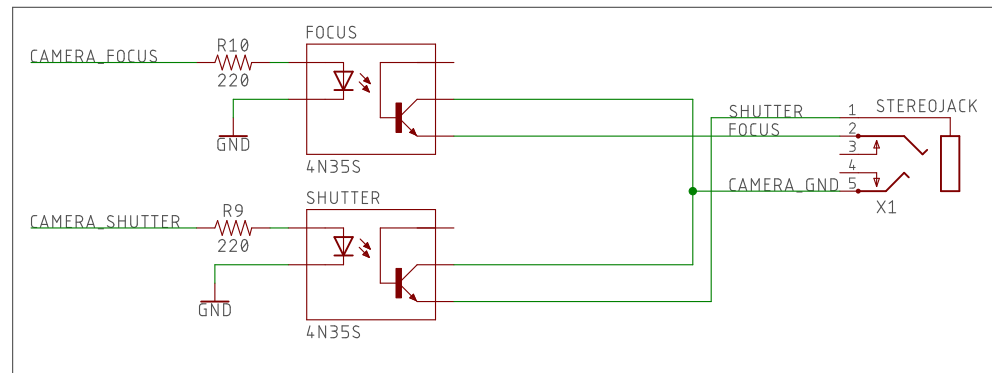
C3 helps in ripple rejection upto 15dB

D1 protect the device against input short circuit

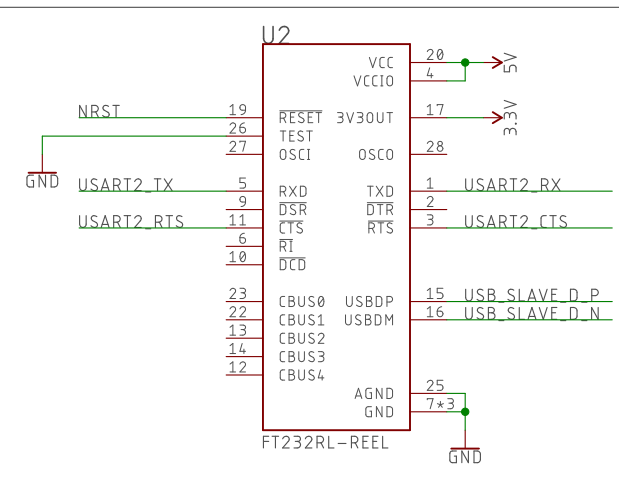
D2 protect against output short circuit for capacitance discharging

C2 of 1  $\mu$ F tantalum capacitor on the output helps to improve transient response

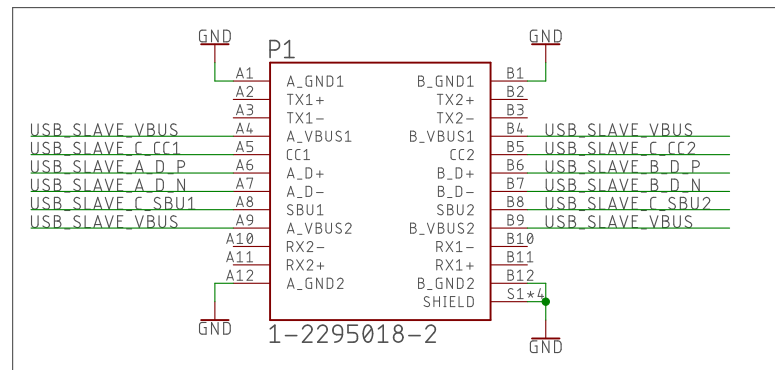
## Camera Control



## USB Slave Controller



## USB C Slave Port



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## 1



## 3



## B



## B



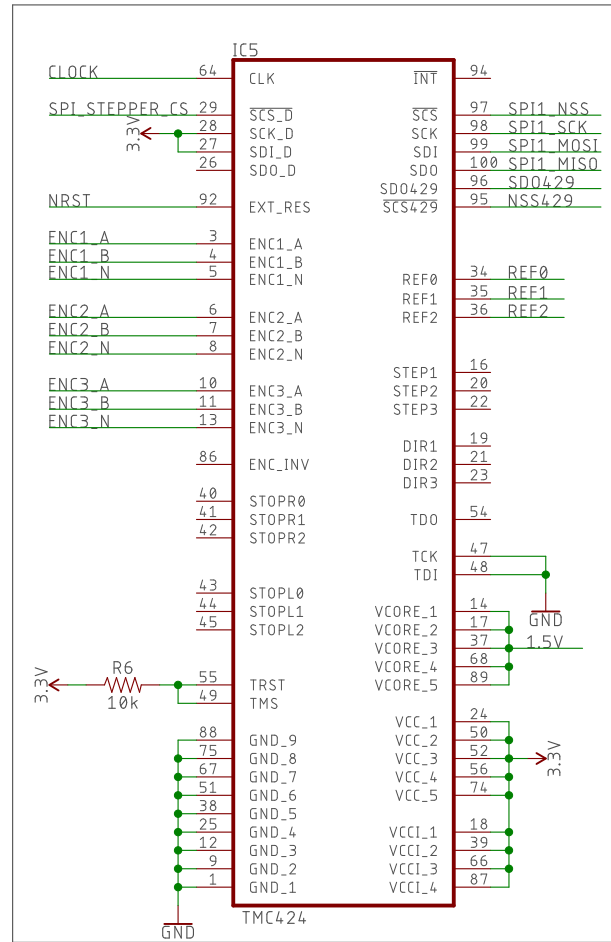
## D

E

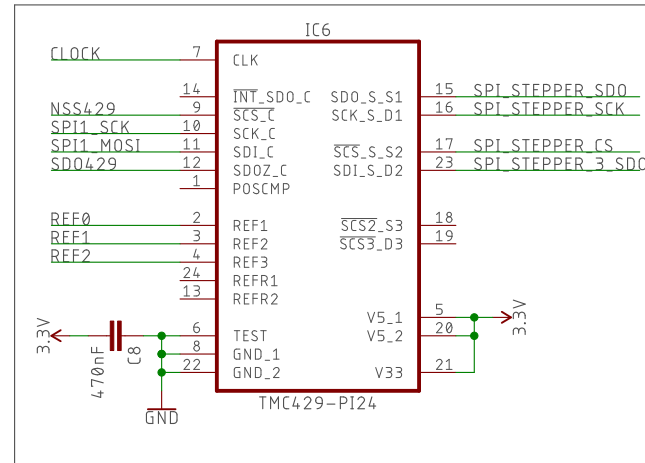
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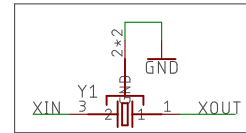
# TMC424 Encoder Interface



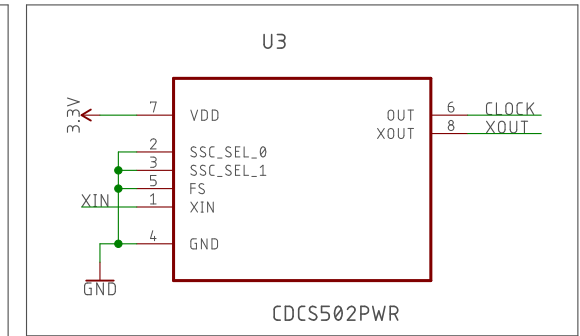
# TMC429 Motion Controller



# Crystal



# Clock Generator



TITLE: main\_smd

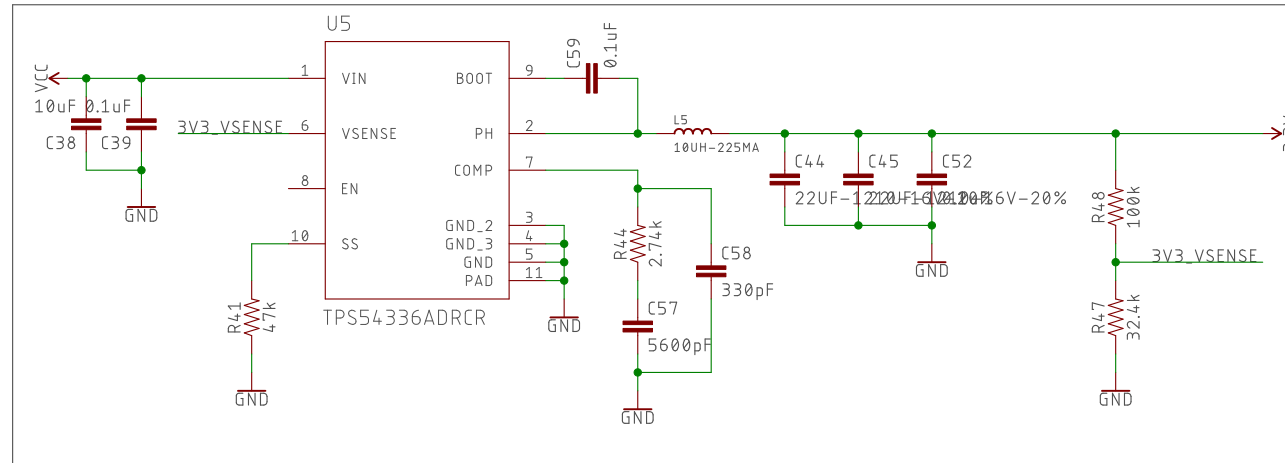
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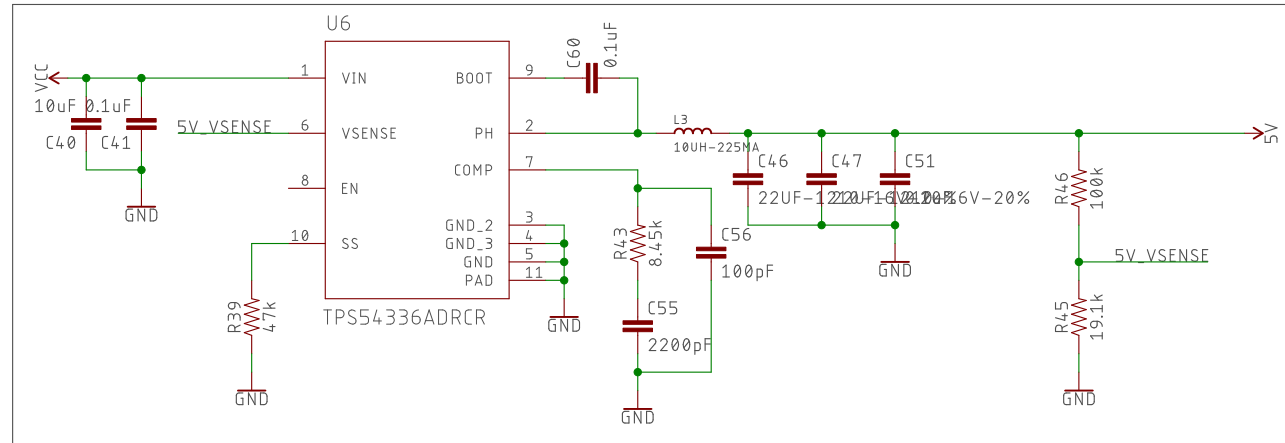
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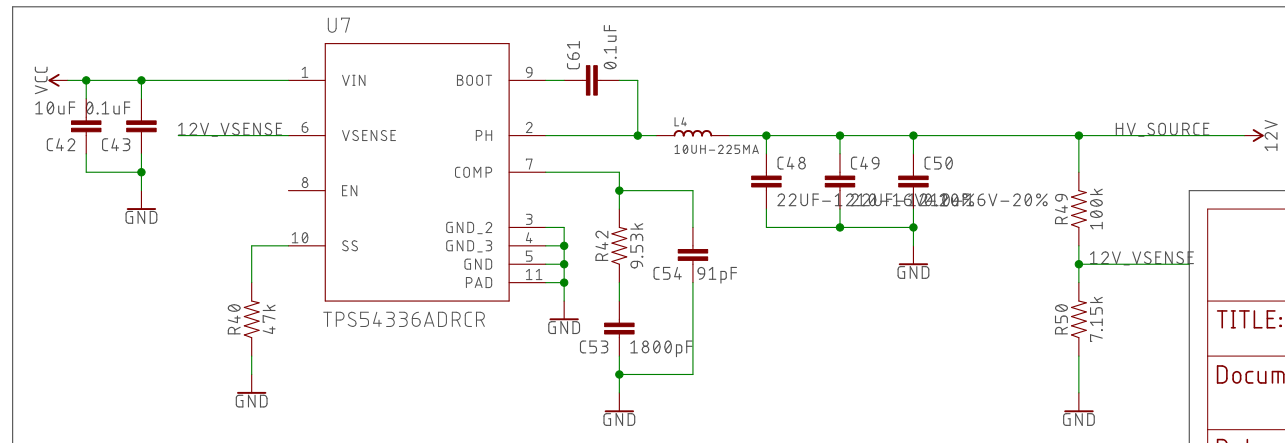
### 3.3V Supply



### 5V Supply



### 12V Supply



TITLE: main\_smd

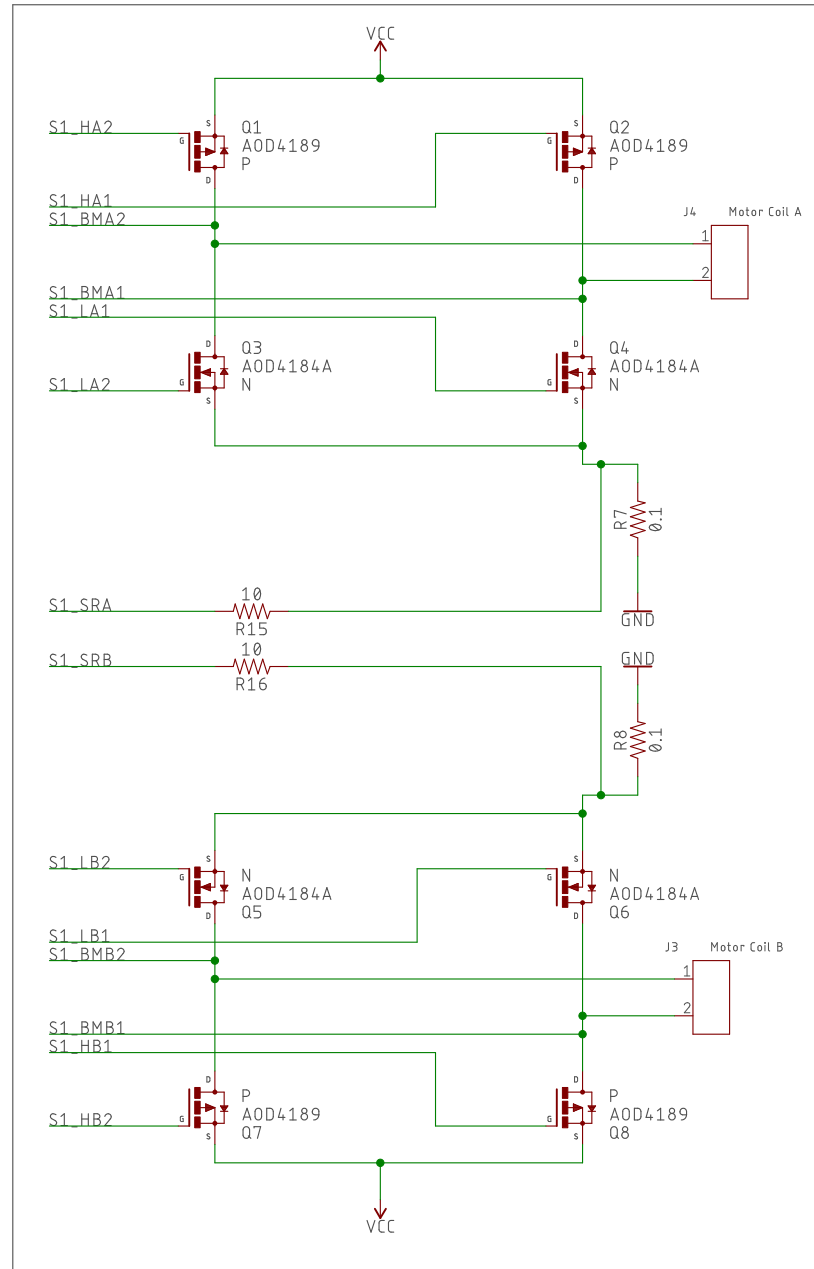
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REV:

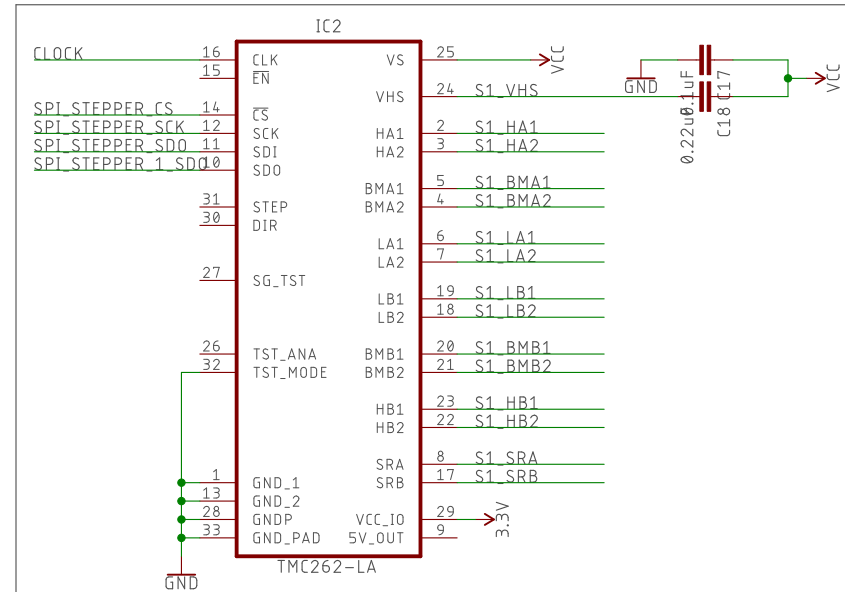
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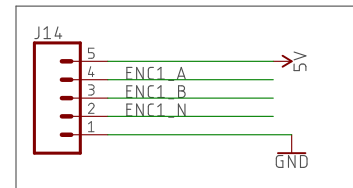
## Stepper 1 MOSFETs



## Stepper 1 Controller



## Stepper 1 Encoder Input



TITLE: main\_smd

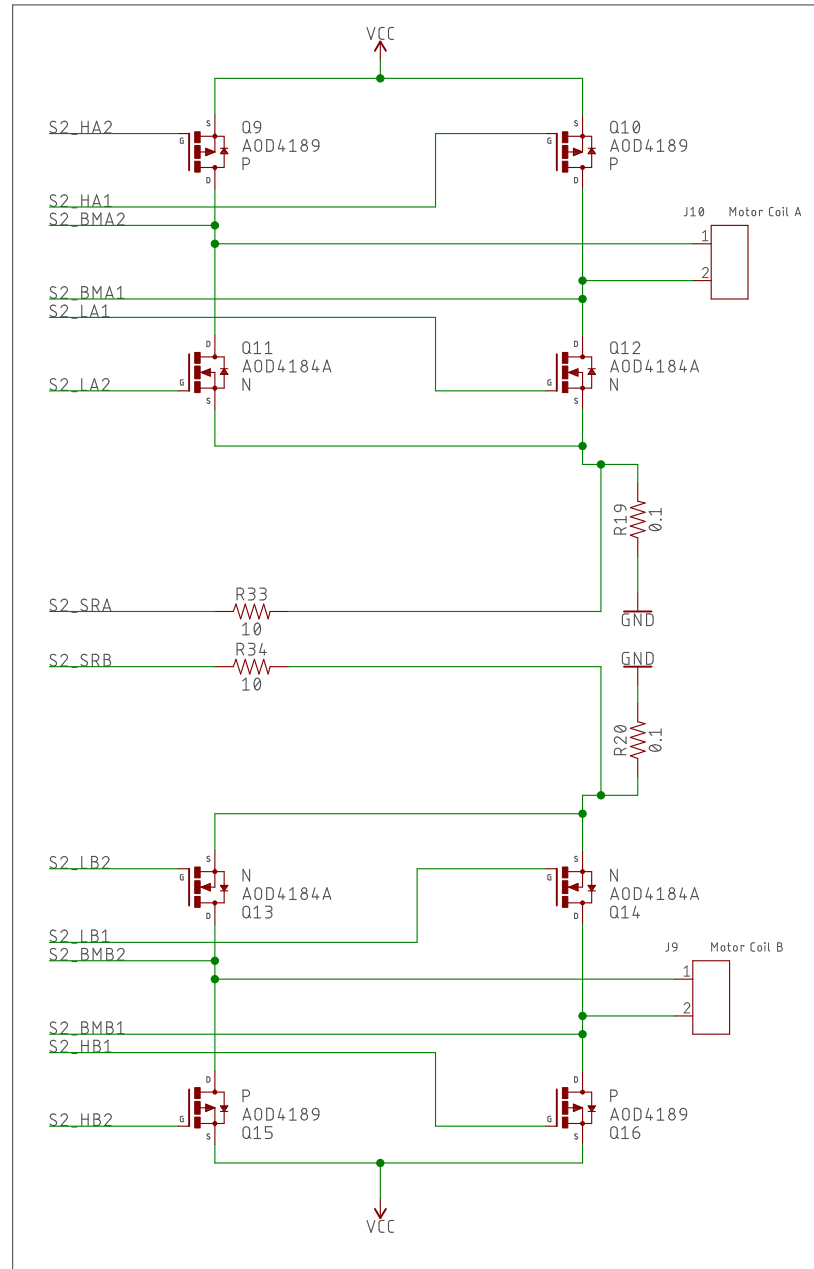
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REV:

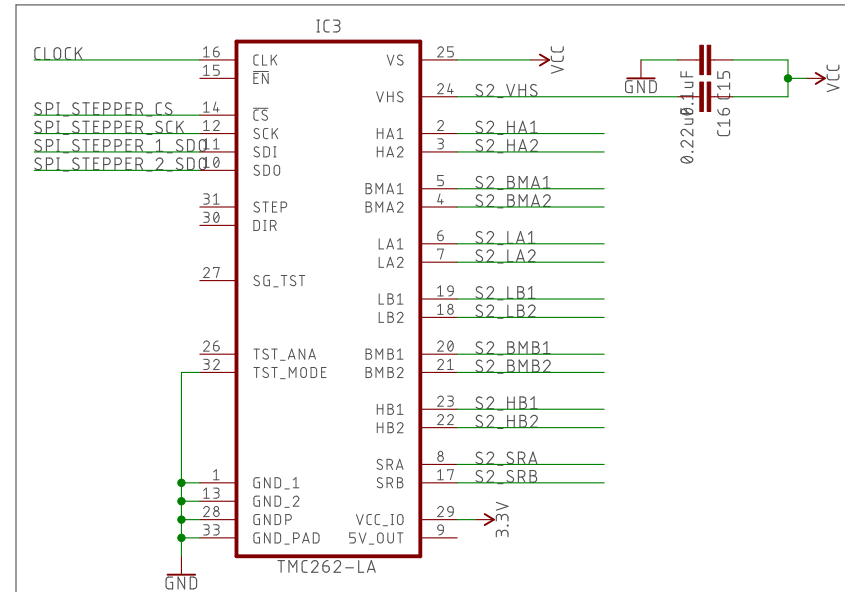
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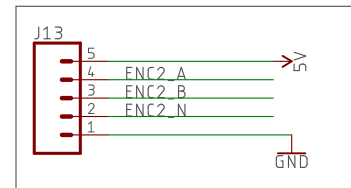
## Stepper 2 MOSFETs



## Stepper 2 Controller



## Stepper 2 Encoder Input



TITLE: main\_smd

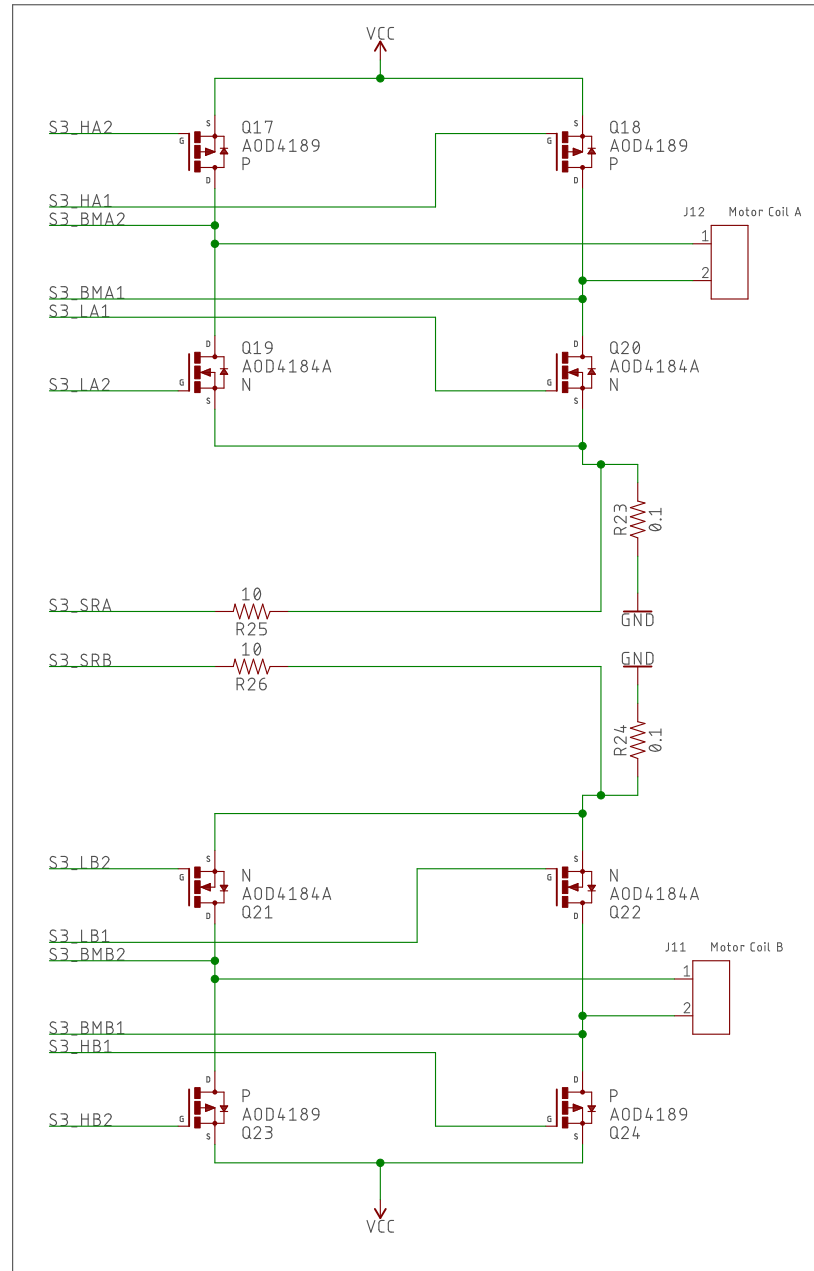
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REV:

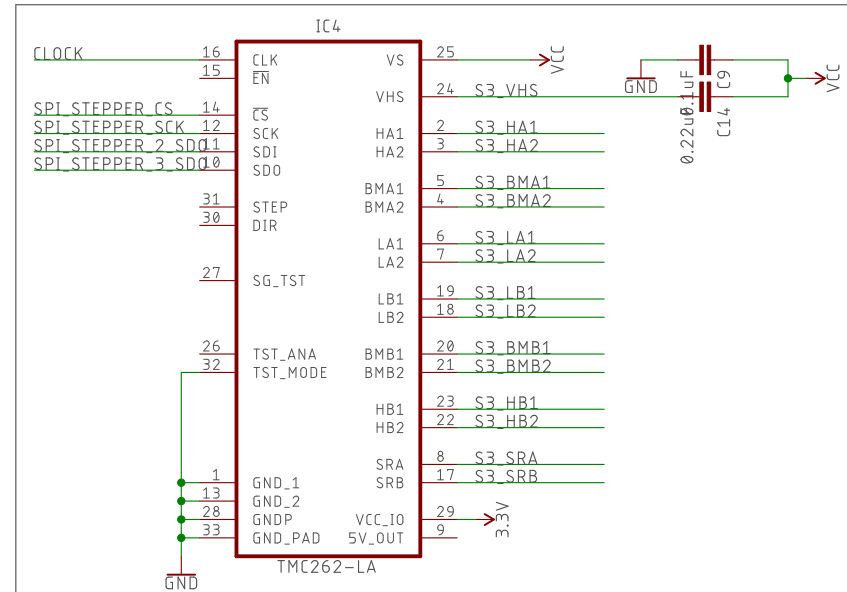
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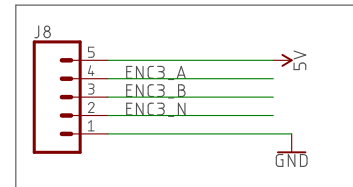
# Stepper 3 MOSFETs



# Stepper 3 Controller



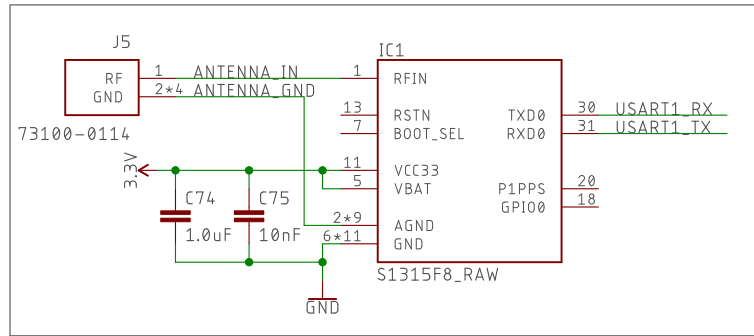
# Stepper 3 Encoder Input



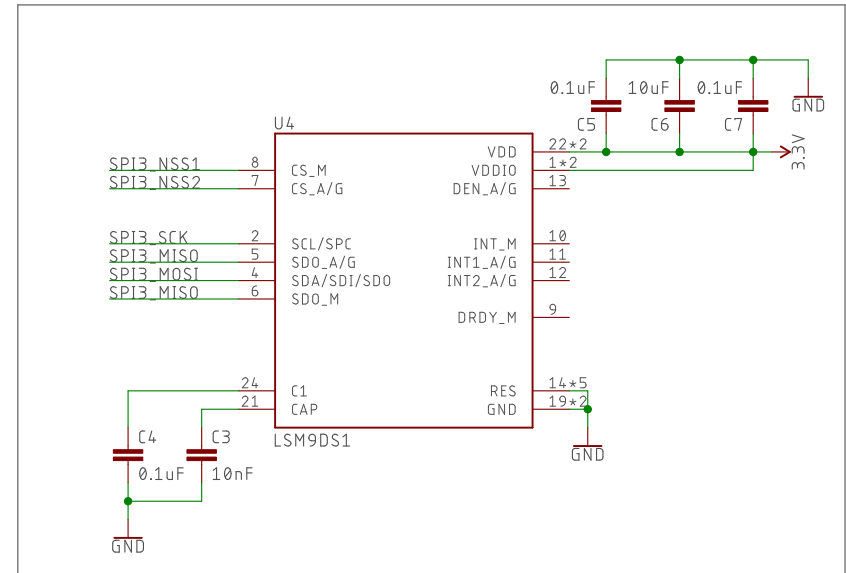
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## GPS



## IMU



TITLE: main\_smd

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