

# MCN Signals

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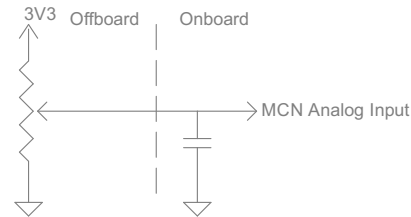
## Sensor Configurations

MCN1	
AIN-1	Front Suspension Travel
AIN-2	Rear Suspension Travel
AIN-3	Steering Angle
AIN-4	Ambient Temp.
AIN-5	Ambient Pres.
AIN-6	Motor Inlet Pressure
AIN-7	Unused Analog 1
AIN-8	Unused Analog 2
GPIO-0	Unused GPIO 1
GPIO-1	Unused GPIO 2

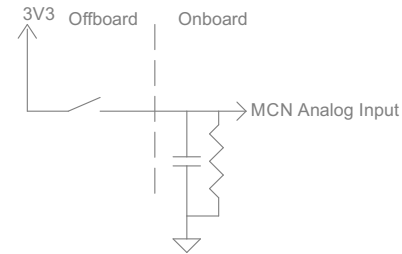
MCN2	
AIN-1	Coolant Temp. Motor Inlet
AIN-2	Coolant Temp. Motor Outlet
AIN-3	Coolant Temp. Controller Inlet
AIN-4	Coolant Temp. Controller Outlet
AIN-5	Contactors Box Temp.
AIN-6	Unused Analog 3
AIN-7	Unused Analog 4
AIN-8	Unused Analog 5
GPIO-0	Coolant Flow Controller Loop
GPIO-1	Coolant Flow Motor Loop

MCN3	
AIN-1	Front Tire Temp.
AIN-2	Rear Tire Temp
AIN-3	Flex 1
AIN-4	Flex 2
AIN-5	Flex 3
AIN-6	Unused Analog 6
AIN-7	Unused Analog 7
AIN-8	Unused Analog 8
GPIO-0	Unused GPIO 3
GPIO-1	Unused GPIO 4

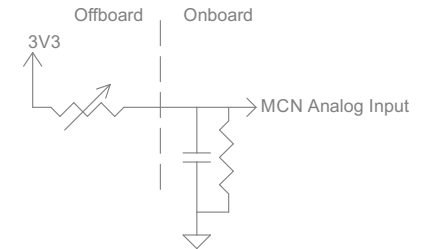
**Linear Pot.**  
Front and rear susp., Steering Ang., Throttle Pos.



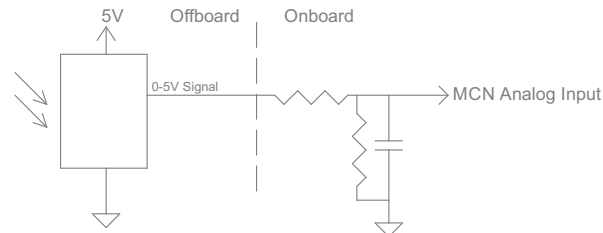
**Toggle Switch**  
Throttle Enable



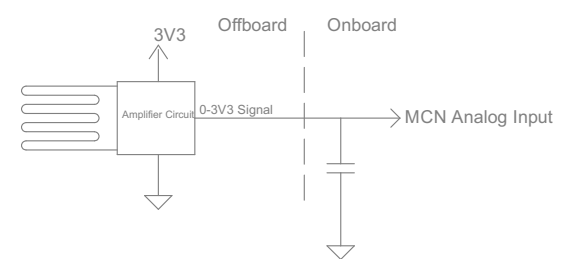
**Thermistor**  
Motor in/out temp., Controller in/out temp.  
Amb. Temp., Contactor Box Temp.



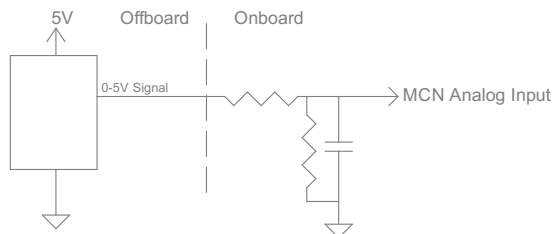
**Infrared Camera**  
Front/Rear Tire Temp.



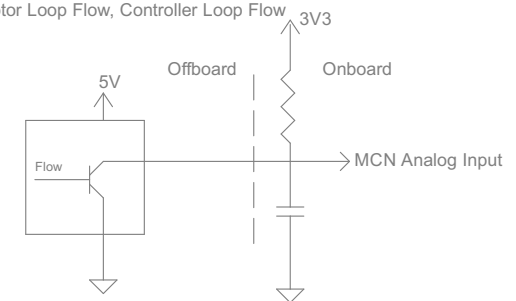
**Strain Gauge**  
Flex 1, 2, 3



**Barometer**  
Amb. Pres., Motor Inlet Pres.



**Flow**  
Motor Loop Flow, Controller Loop Flow



Rider Controls	
AIN-1	Throttle Position
AIN-2	Unused Analog 9
GPIO-0	Throttle Enable
GPIO-1	Unused GPIO 5



Board: Sensor Breakout Board

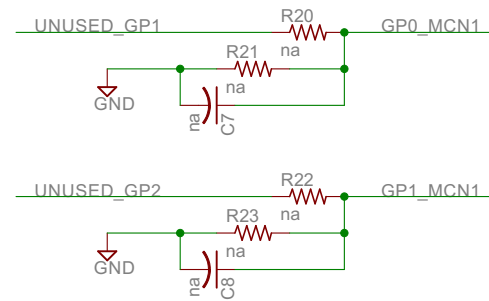
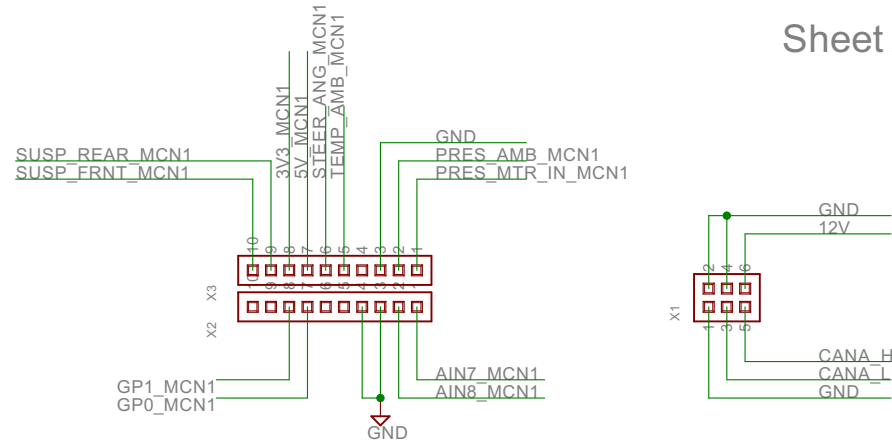
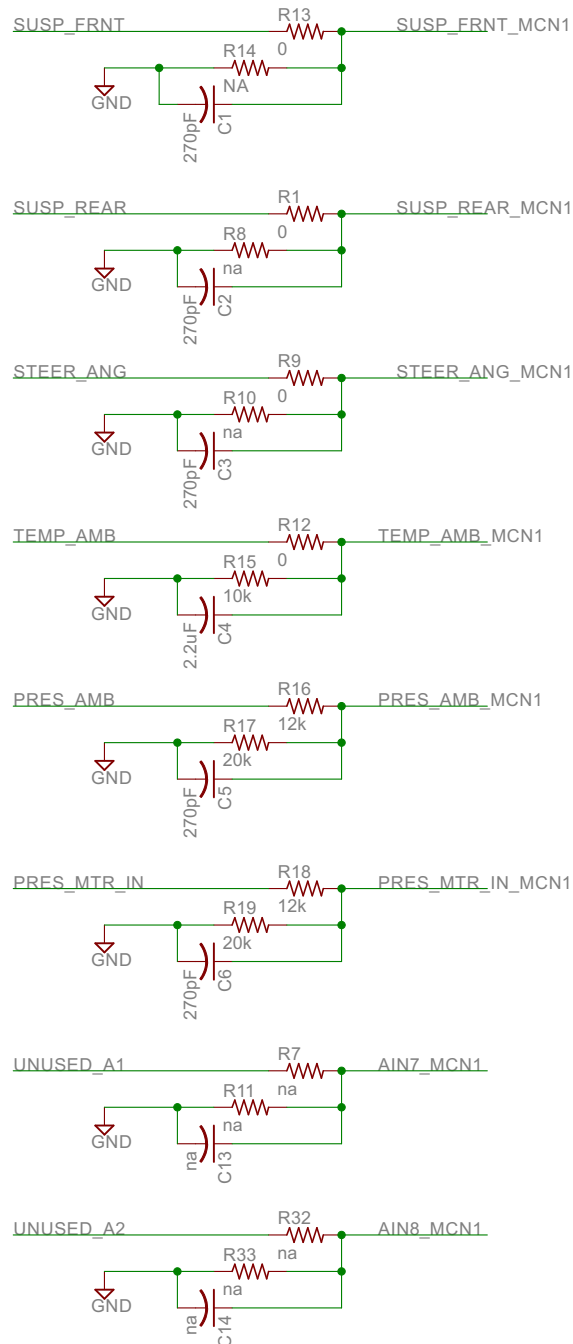
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# MCN1

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Board: Sensor Breakout Board

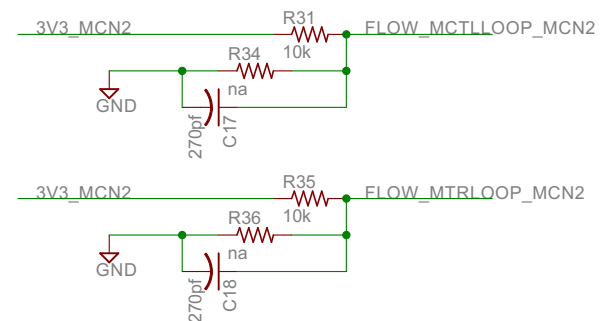
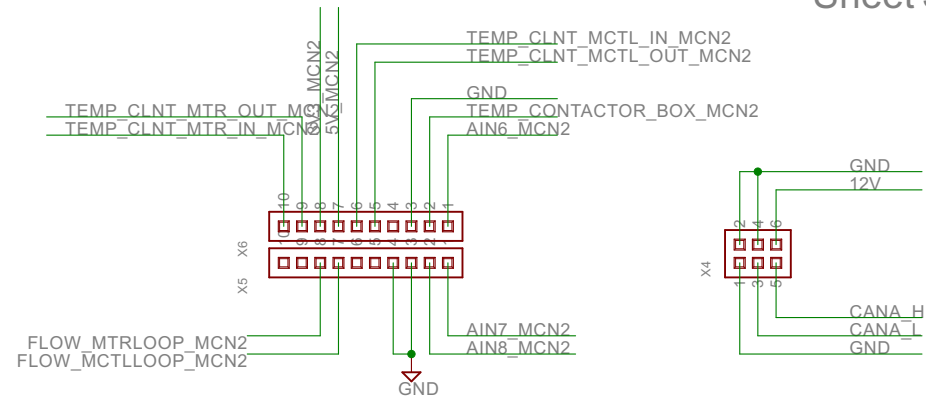
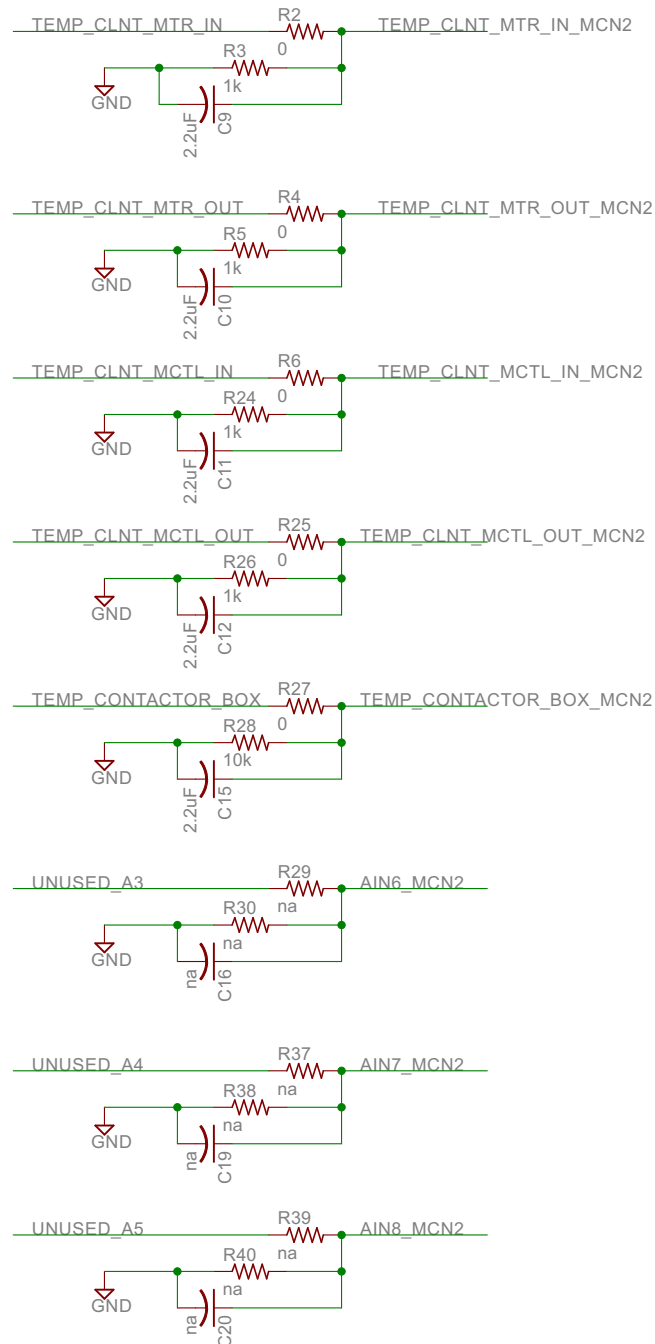
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# MCN2

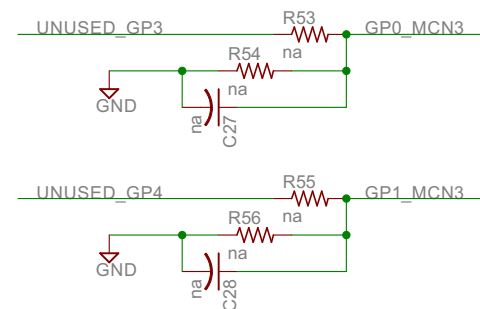
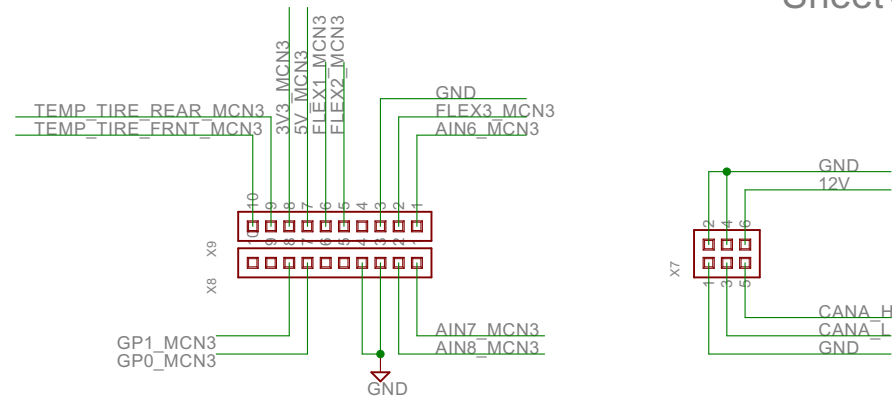
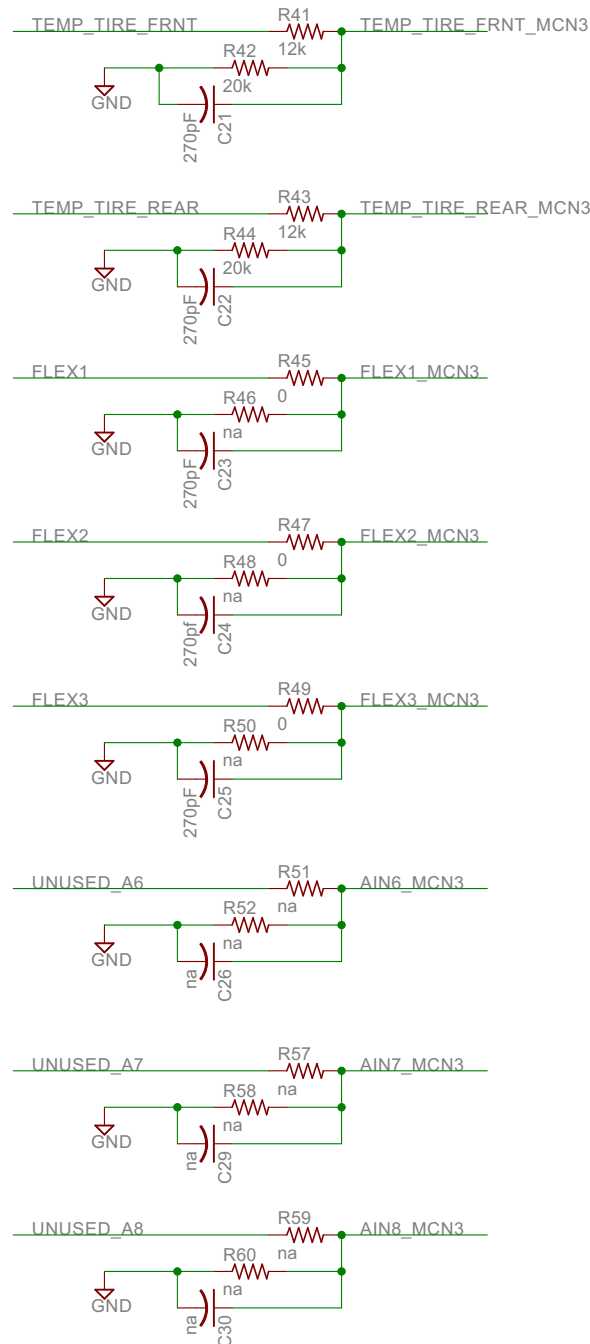
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Board: Sensor Breakout Board  
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# MCN3

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Board: Sensor Breakout Board

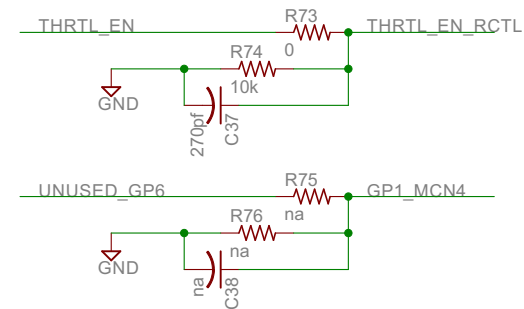
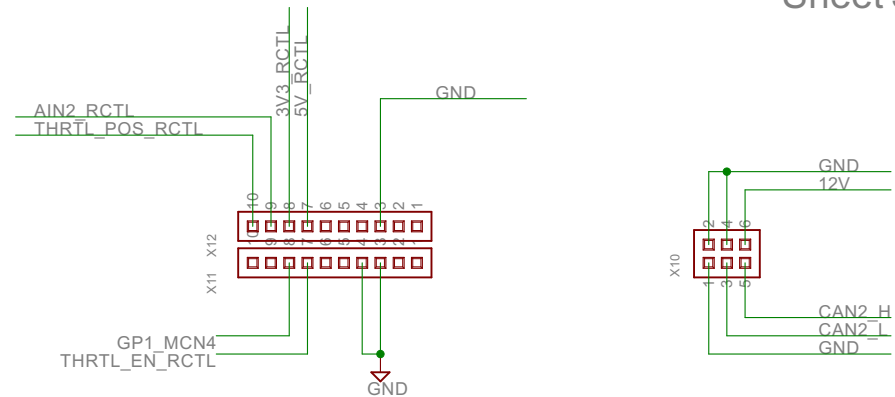
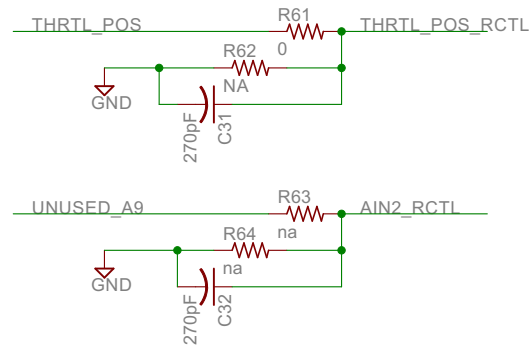
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# Rider Control MCN

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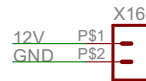


Board: Sensor Breakout Board  
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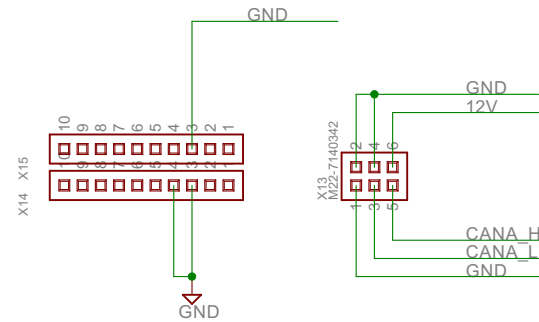
# Other Support Hardware

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## 12V Input



## GPS MCN



## CAN Backplane

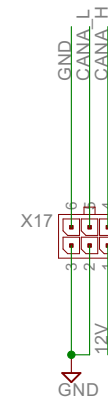
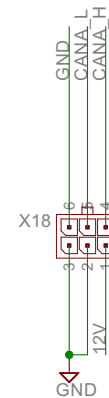
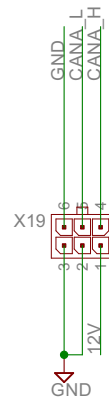
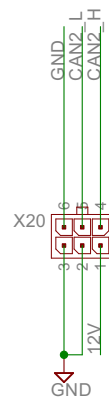
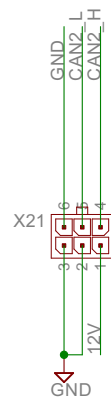
Oil Pan Port 2

CAN Mirror

CAN Mirror

Oil Pan Port A

Kvaser



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# Big Plug

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## MCN1

UNUSED_GP2	PAD1
UNUSED_GP1	PAD2
UNUSED_A2	PAD3
UNUSED_A1	PAD4
SUSP_FRNT	PAD5
SUSP_REAR	PAD6
3V3_MCN1	PAD7
5V_MCN1	PAD8
TEMP_AMB	PAD9
STEER_ANG	PAD10
PRES_AMB	PAD11
PRES_MTR_IN	PAD12

## MCN2

FLOW_MTRLOOP_MCN2	PAD13
FLOW_MCTLLOOP_MCN2	PAD14
UNUSED_A5	PAD15
UNUSED_A4	PAD16
TEMP_CLNT_MTR_IN	PAD17
TEMP_CLNT_MTR_OUT	PAD18
3V3_MCN2	PAD19
5V_MCN2	PAD20
TEMP_CLNT_MCTL_OUT	PAD21
TEMP_CLNT_MCTL_IN	PAD22
TEMP_CONTACTOR_BOX	PAD23
UNUSED_A3	PAD24

CANA_H	PAD45
CANA_L	PAD47

CAN2_L	PAD44
CAN2_H	PAD46

12V	PAD49
	PAD51
	PAD53
	PAD55
	PAD57
	PAD59

GND	PAD48
	PAD50
	PAD52
	PAD54
	PAD56
	PAD58

## MCN3

UNUSED_GP4	PAD25
UNUSED_GP3	PAD26
UNUSED_A8	PAD27
UNUSED_A7	PAD28
TEMP_TIRE_FRNT	PAD29
TEMP_TIRE_REAR	PAD30
3V3_MCN3	PAD31
5V_MCN3	PAD32
FLEX2	PAD33
FLEX1	PAD34
FLEX3	PAD35
UNUSED_A6	PAD36

## RCTL

UNUSED_GP6	PAD37
THRTL_EN	PAD38
THRTL_POS	PAD39
UNUSED_A9	PAD40
3V3_RCTL	PAD41
5V_RCTL	PAD42



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