

A

B

C

D

A

B

C

D

1

2

3

4

MCU

U1A

JTAGSEL

TST

NRST

PB14/DAC1

PB13/DAC0

ERASE/PB12

DDP/PB11

DDM/PB10

XIN/PGMCK/PB9

XOUT/PB8

TCK/SWCLK/PB7

TMS/SWDIO/PB6

TDO/TRACESWO/PB5

TDI/PB4

PWML0

PB3/AD7

PB2/AD6

PB1/AD5

PB0/AD4

ATSAM4S8BA-ANR

PA31

PA30

PA29

PA28

PA27/PGMD15

PA26/PGMD14

PA25/PGMD13

PA24/PGMD12

PA23/PGMD11

PA22/PGMD10/AD9

PA21/PGMD9/AD8

PA20/PGMD8/AD3

PA19/PGMD7/AD2

PA18/PGMD6/AD1

PA17/PGMD5/AD0

PA16/PGMD4

PA15/PGMD3

PA14/PGMD2

PA13/PGMD1

PA12/PGMD0

PA11/PGMM3

PA10/PGMM2

PA9/PGMM1

PA8/XOUT32/PGMM0

PA7/XIN32/PGMNVALID

PA6/PGMNOE

PA5/PGMRDY

PA4/PGMNCMD/TWCK0

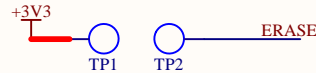
PA3/TWD0

PA2/PGMEN2

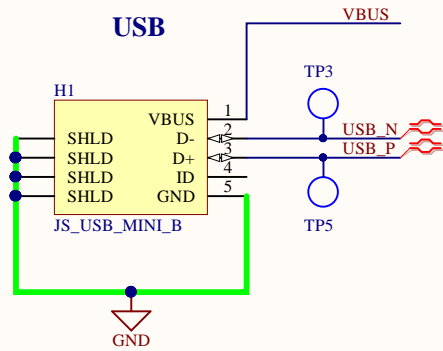
PA1/PGMEN1

PA0/PGMEN0

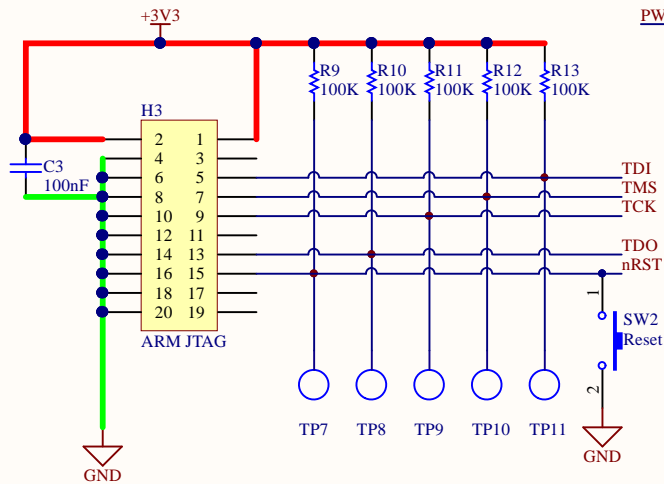
Place adjacent for temporary
connection to erase flash
memory



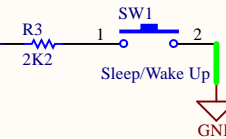
USB



JTAG



Sleep/Wake Up
(PIO Arbitrary)



BATTERY ADC

PA15

TP4

PA11

TP6

URXD0

SCL

SDA

LED3

LED2

LED1

R7

R8

R14

R15

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

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GND

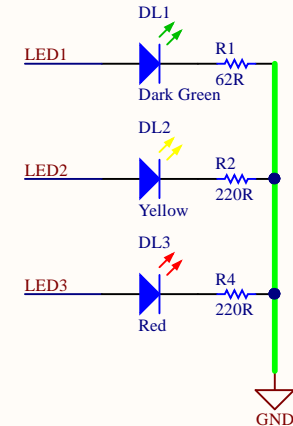
GND

GND

GND

GND

Debug LED's



I2C

To enable pull ups
(PIO Arbitrary)

C17:5V

100nF

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

GND

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GND

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GND

GND

GND

Title **Sam 4S Basic Board 5 (GROUP 4)**

Drawn by Mike Cusdin

Revision 2

Date: 8/03/2016 Time: 10:53:07 PM Sheet 1 of 3

ECE Department
University of Canterbury
Christchurch 8041
New Zealand



File: C:\Users\Kaan\OneDrive\Documents\Uniwork\3rd Pro (2016)\ENCE461\Wacky Racers\MotorBoard\PCB_Project\Sam4S B

1

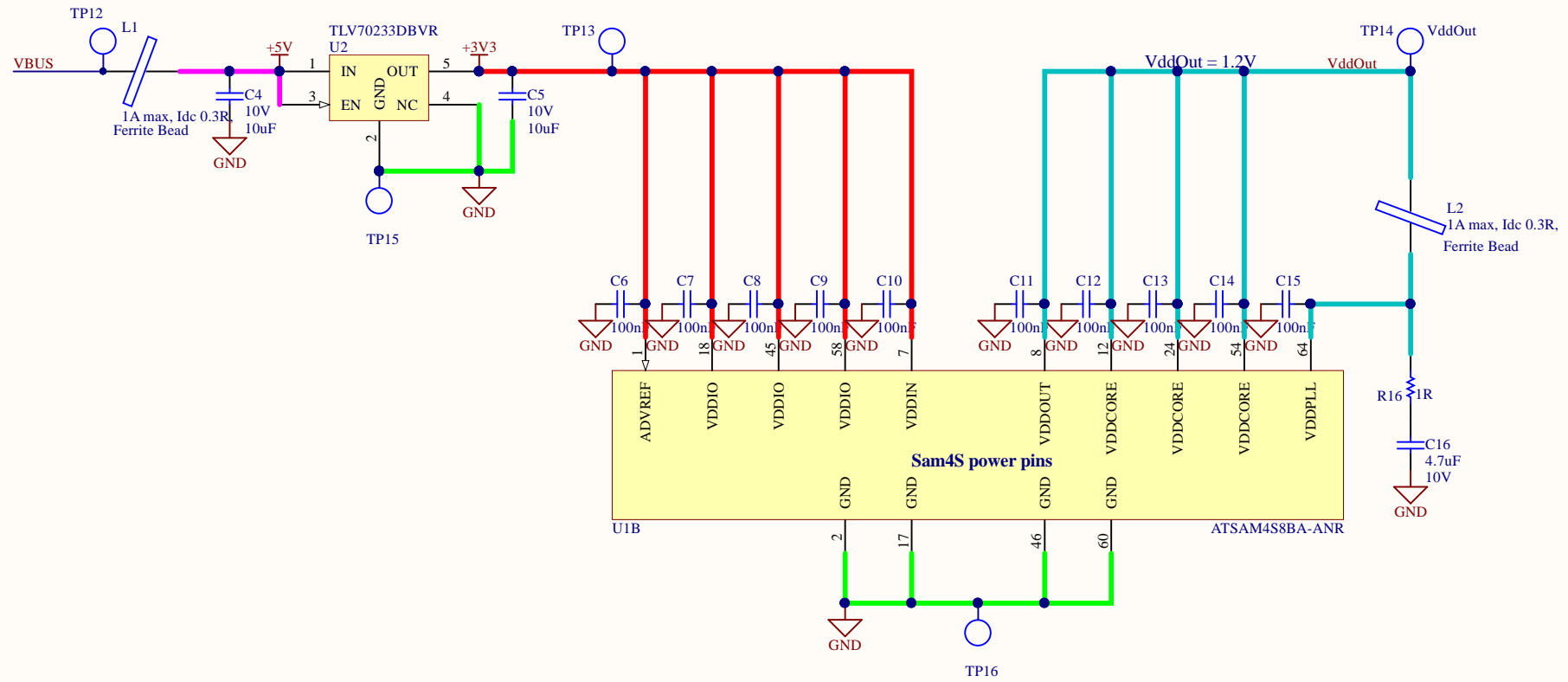
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3

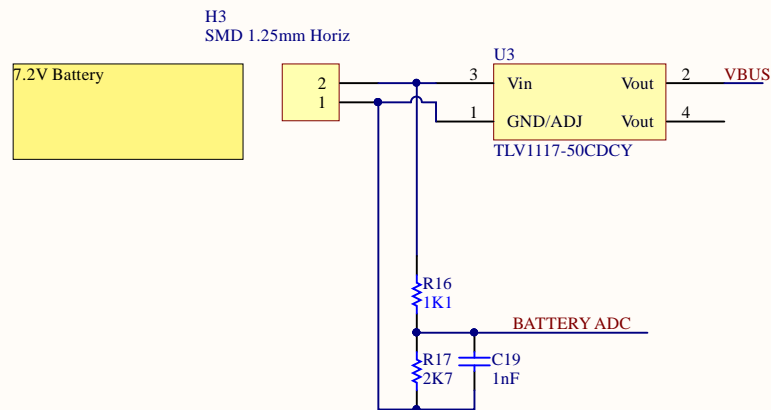
4

5V to 3.3V LDO reg

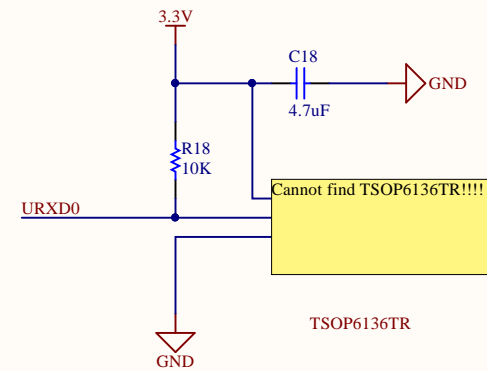
MCU power connections



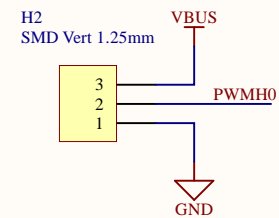
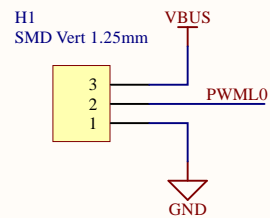
Voltage Regulator 6.4V~15V to 5V



IR UART



PWM



Title **Motor Board (GROUP 4)**

Drawn by **AMBROSE WARBURTON & TIM BROWN**

Date: 8/03/2016 Time: 10:53:08 PM Sheet 3 of 3

File: C:\Users\Kaan\OneDrive\Documents\Uniwork\3rd Pro (2016)\ENCE461\Wacky Racers\MotorBoard\PCB_Project\Motor Board

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