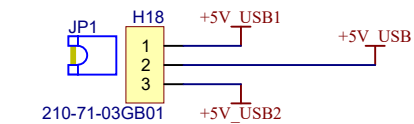
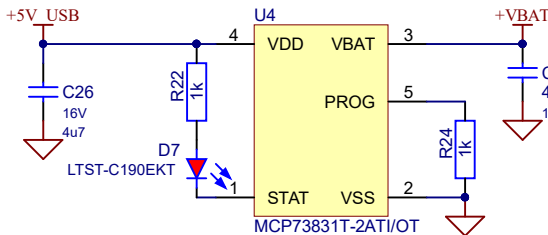


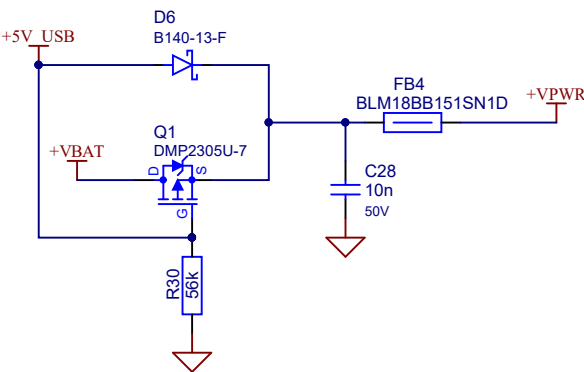
USB input power selector (jumper)



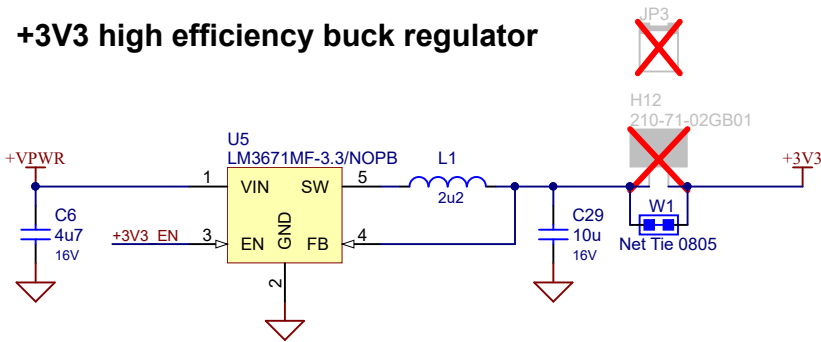
Li-Po Battery Charger



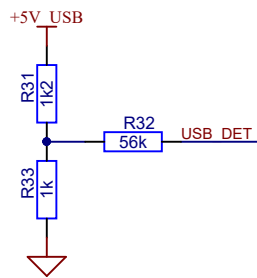
Automatic power path selection



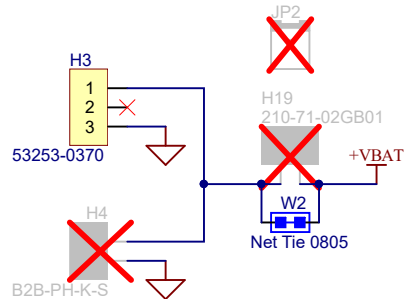
+3V3 high efficiency buck regulator



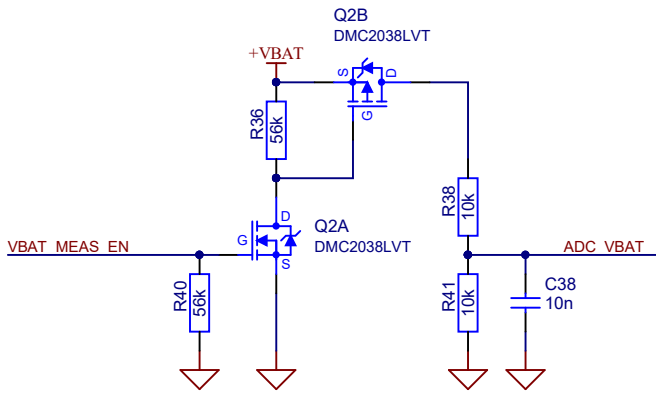
USB power detect



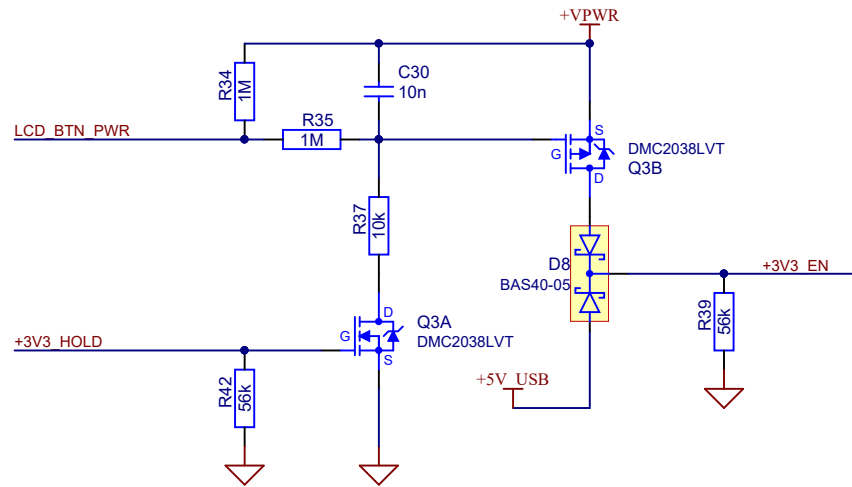
Li-Po Battery Connector (Molex or JST)



Battery Voltage Measurement



Power on button and microcontroller hold (always on when USB connected)



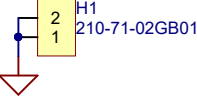
Fiducials

- H5 Fiducial 1mm
- H8 Fiducial 1mm
- H13 Fiducial 1mm
- H14 Fiducial 1mm

Mounting Holes

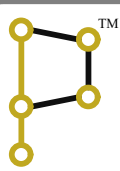
- H6 Mounting hole, M3
- H9 Mounting hole, M3
- H10 Mounting hole, M3
- H11 Mounting hole, M3

GND Test Points



BOM

PCB1  
P0014-A



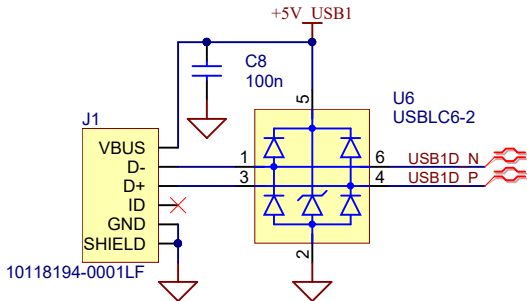
2017-09-26 11:49:44 AM

PCB NAME Hero Board		PCB NUMBER P0012
SCH PAGE TITLE Power Supply		PCB REV A
SHEET 1 OF 3	DATE 2017-03-18	VARIANT standard version
DRAWN BY Pieter Conradie	PROJECT ENGINEER Pieter Conradie	TEMPLATE REV 02
COPYRIGHT © 2017 PICONOMIX ( <a href="https://piconomix.com">https://piconomix.com</a> ) ALL RIGHTS RESERVED		

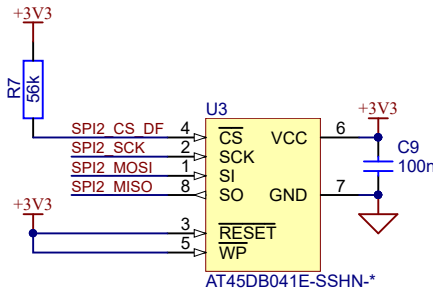
# ARM Cortex M0+ Microcontroller



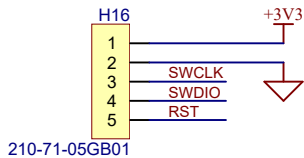
## USB Device Port



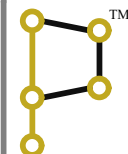
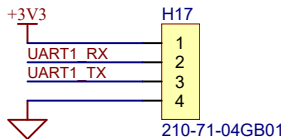
## DataFlash



## Program & Debug

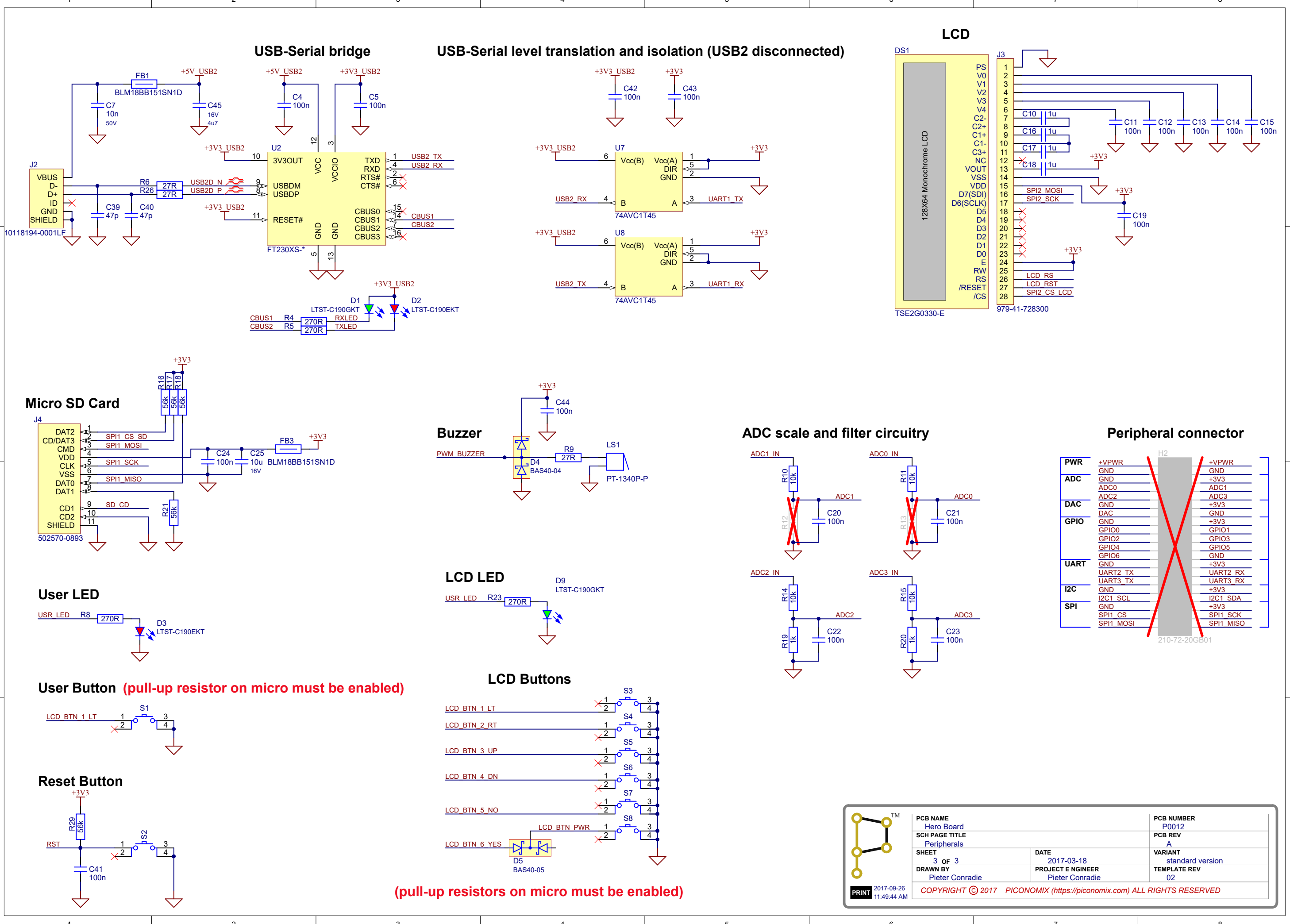


## UART Header



PRINT 2017-09-26 11:49:44 AM

PCB NAME Hero Board		PCB NUMBER P0012
SCH PAGE TITLE Microcontroller		PCB REV A
SHEET 2 OF 3	DATE 2017-03-18	VARIANT standard version
DRAWN BY Pieter Conradie	PROJECT ENGINEER Pieter Conradie	TEMPLATE REV 02
COPYRIGHT © 2017 PICONOMIX (https://piconomix.com) ALL RIGHTS RESERVED		



USB-Serial bridge

USB-Serial level translation and isolation (USB2 disconnected)

LCD

Micro SD Card

Buzzer

LCD LED

User LED

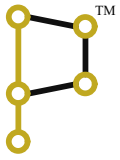
User Button (pull-up resistor on micro must be enabled)

Reset Button

LCD Buttons

ADC scale and filter circuitry

Peripheral connector

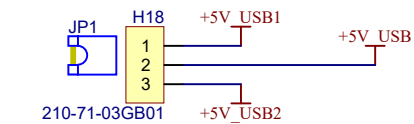


2017-09-26 11:49:44 AM

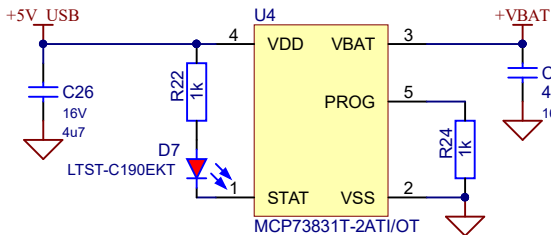
PCB NAME Hero Board		PCB NUMBER P0012
SCH PAGE TITLE Peripherals		PCB REV A
SHEET 3 OF 3	DATE 2017-03-18	VARIANT standard version
DRAWN BY Pieter Conradie	PROJECT ENGINEER Pieter Conradie	TEMPLATE REV 02

COPYRIGHT © 2017 PICONOMIX (<https://piconomix.com>) ALL RIGHTS RESERVED

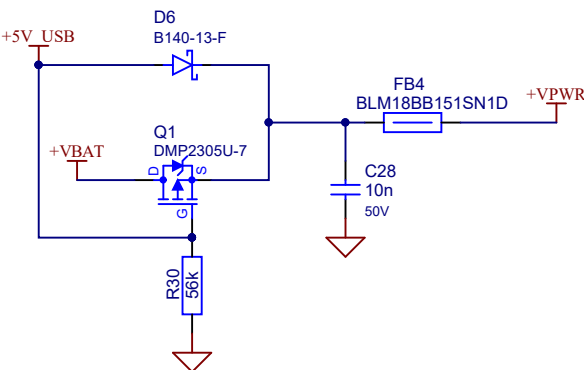
USB input power selector (jumper)



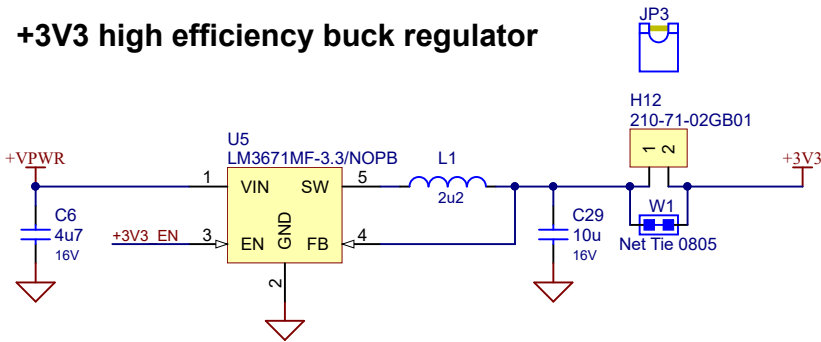
Li-Po Battery Charger



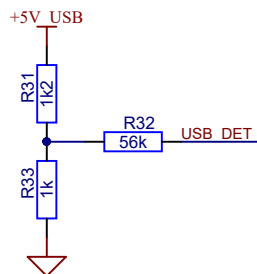
Automatic power path selection



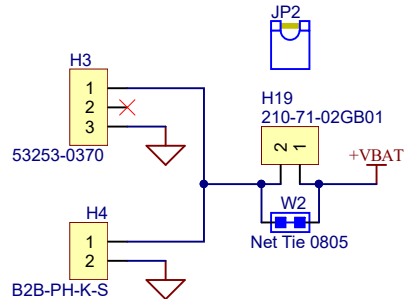
+3V3 high efficiency buck regulator



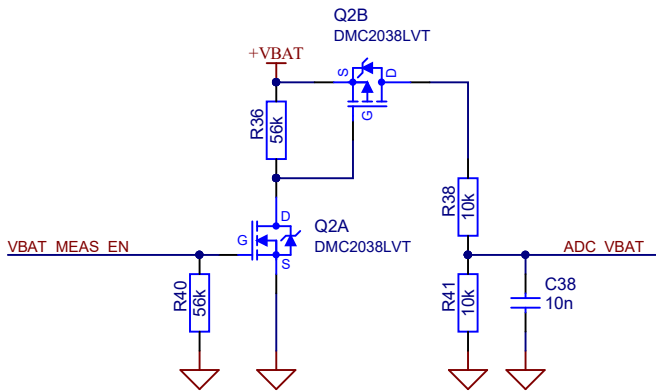
USB power detect



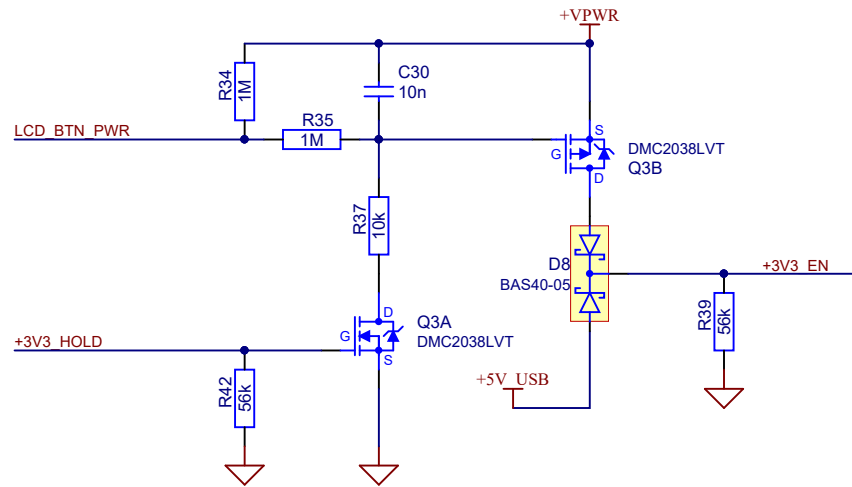
Li-Po Battery Connector (Molex or JST)



Battery Voltage Measurement



Power on button and microcontroller hold (always on when USB connected)



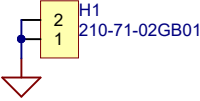
Fiducials

- H5 Fiducial 1mm
- H8 Fiducial 1mm
- H13 Fiducial 1mm
- H14 Fiducial 1mm

Mounting Holes

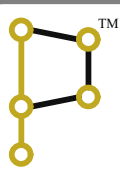
- H6 Mounting hole, M3
- H9 Mounting hole, M3
- H10 Mounting hole, M3
- H11 Mounting hole, M3

GND Test Points



BOM

PCB1
P0014-A



2017-09-26 11:49:45 AM

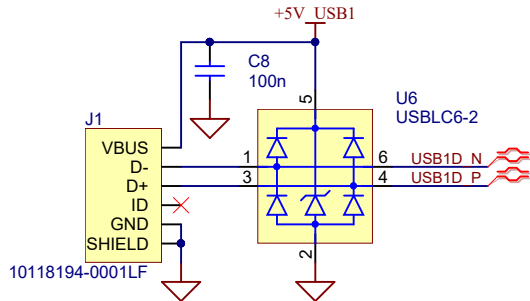
PCB NAME Hero Board		PCB NUMBER P0012
SCH PAGE TITLE Power Supply		PCB REV A
SHEET 1 OF 3	DATE 2017-03-18	VARIANT [No Variations]
DRAWN BY Pieter Conradie	PROJECT ENGINEER Pieter Conradie	TEMPLATE REV 02

COPYRIGHT © 2017 PICONOMIX (https://piconomix.com) ALL RIGHTS RESERVED

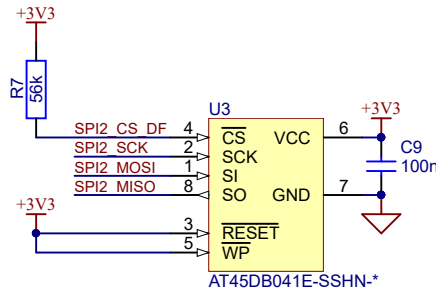
# ARM Cortex M0+ Microcontroller



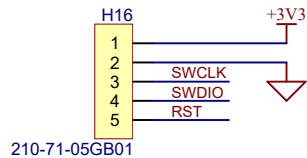
## USB Device Port



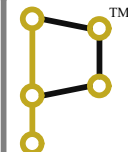
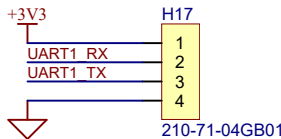
## DataFlash



## Program & Debug

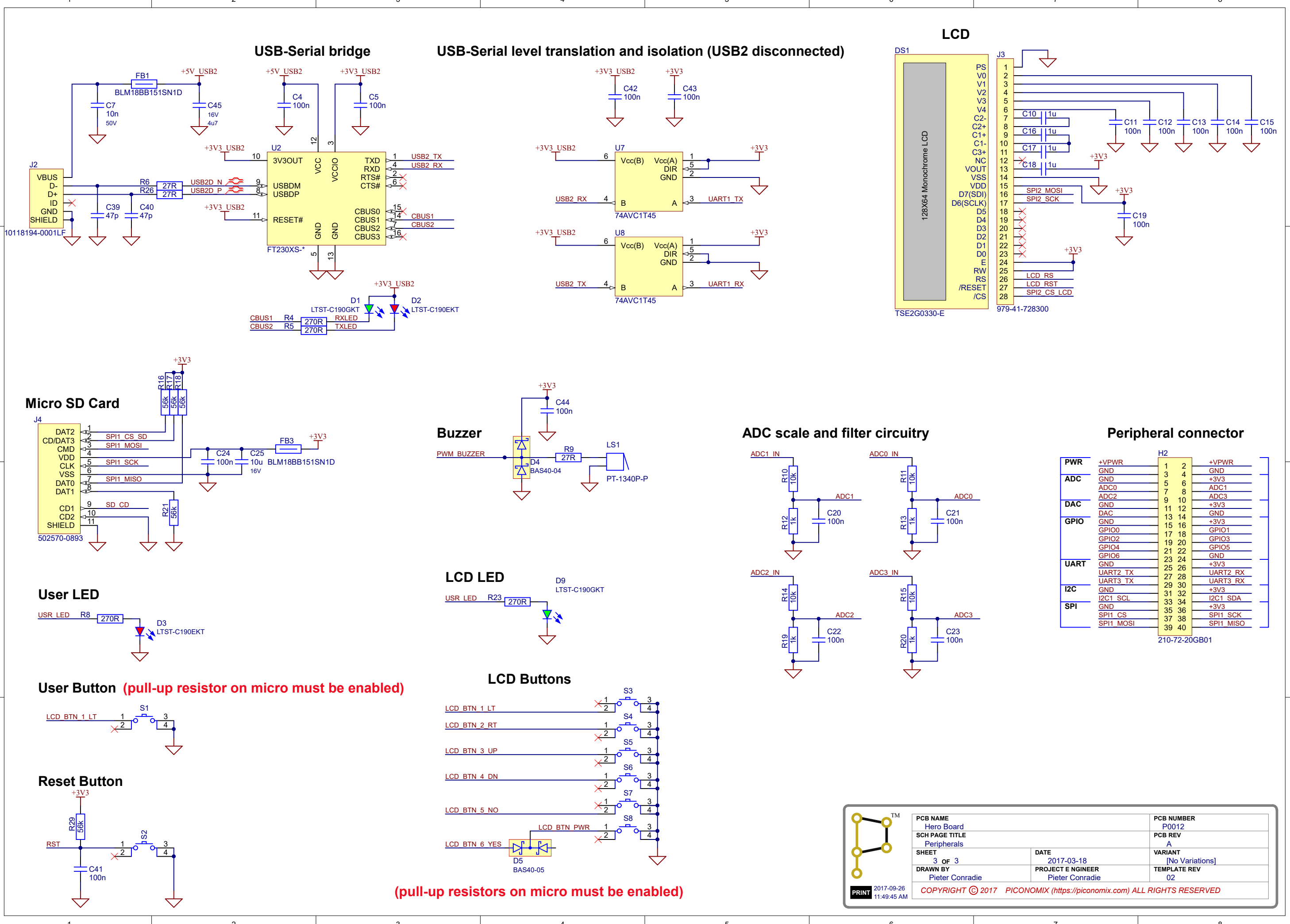


## UART Header

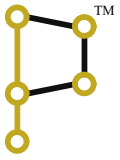


PRINT 2017-09-26 11:49:45 AM

PCB NAME Hero Board		PCB NUMBER P0012
SCH PAGE TITLE Microcontroller		PCB REV A
SHEET 2 OF 3	DATE 2017-03-18	VARIANT [No Variations]
DRAWN BY Pieter Conradie	PROJECT ENGINEER Pieter Conradie	TEMPLATE REV 02
COPYRIGHT © 2017 PICONOMIX ( <a href="https://piconomix.com">https://piconomix.com</a> ) ALL RIGHTS RESERVED		



(pull-up resistors on micro must be enabled)



2017-09-26  
11:49:45 AM

PCB NAME Hero Board		PCB NUMBER P0012
SCH PAGE TITLE Peripherals		PCB REV A
SHEET 3 OF 3	DATE 2017-03-18	VARIANT [No Variations]
DRAWN BY Pieter Conradie	PROJECT ENGINEER Pieter Conradie	TEMPLATE REV 02

COPYRIGHT © 2017 PICONOMIX (<https://piconomix.com>) ALL RIGHTS RESERVED