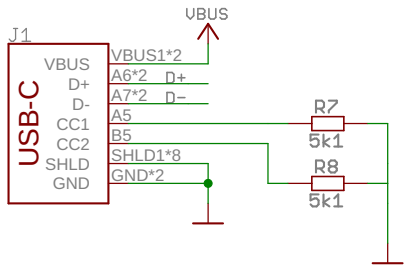
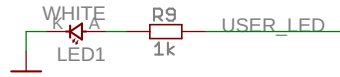


Badger 2040 (PIM607): RP2040 & co

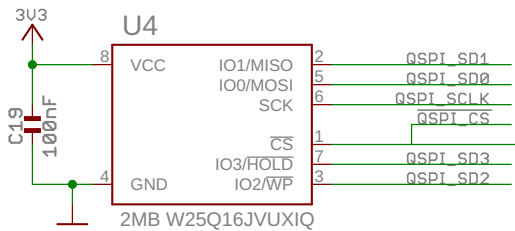
USB-C connector



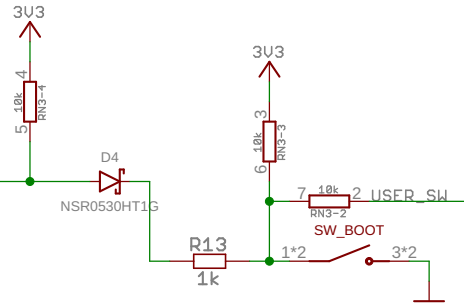
Activity LED



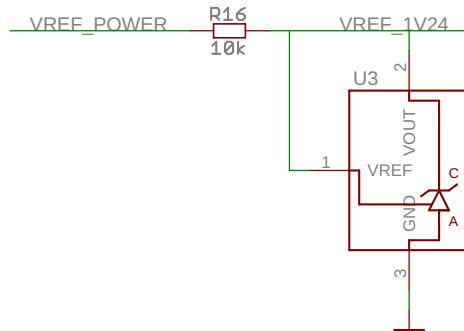
Flash memory



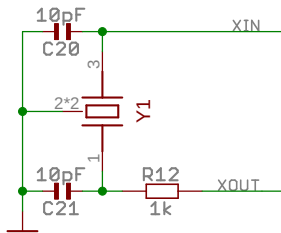
Combined USB boot & user switch



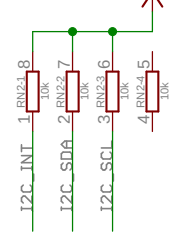
Voltage reference for battery monitoring



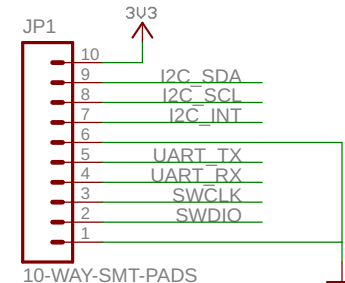
Crystal



Pullups



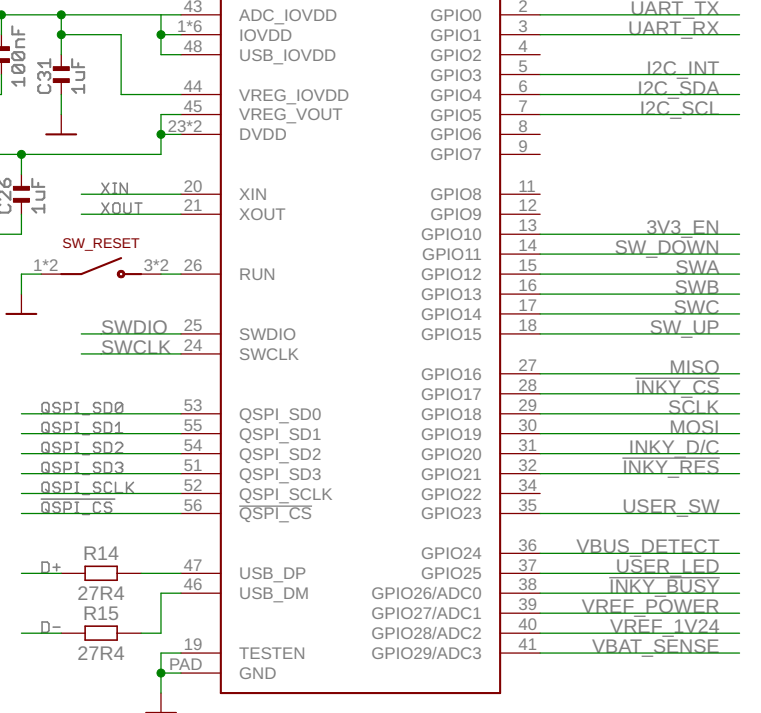
Combined BG & Debug pads



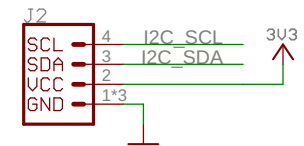
RP2040 MCU

MCU1

RP2040
IOVDD&VREG: 1.8-3.3V
USB&ADC: 3.3V
DVDD: 1.1V



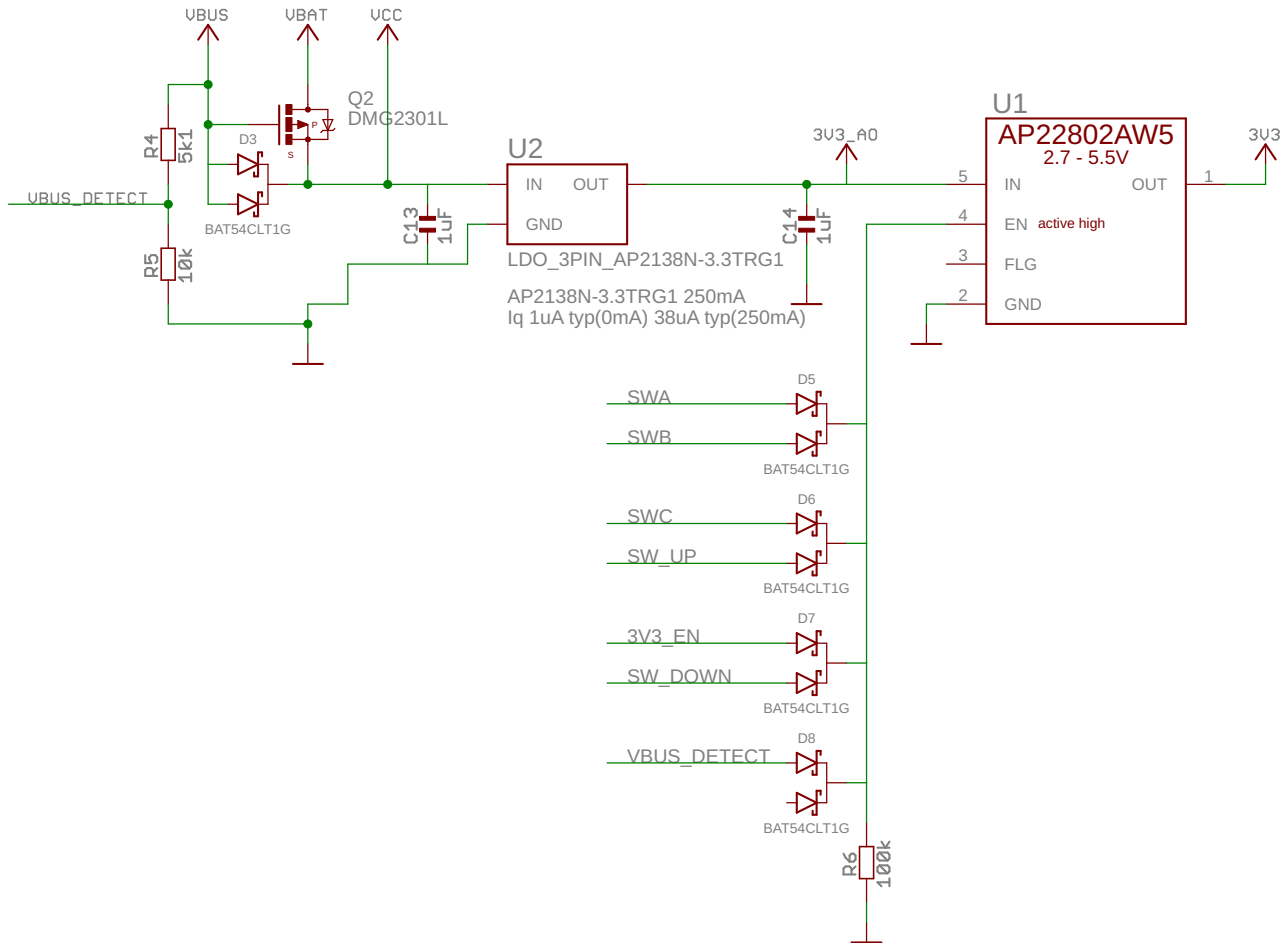
QW/ST connector



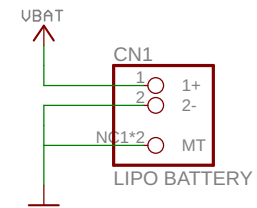
Badger 2040 (PIM607): Power supply

Power Supply and switching

Use VBUS when available otherwise UBAT for supply.

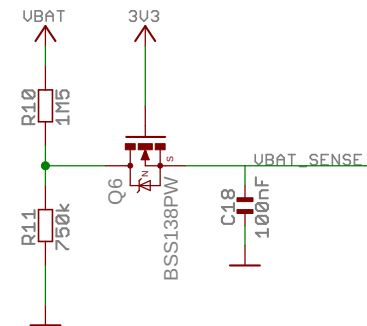


Battery connector (JST PH)



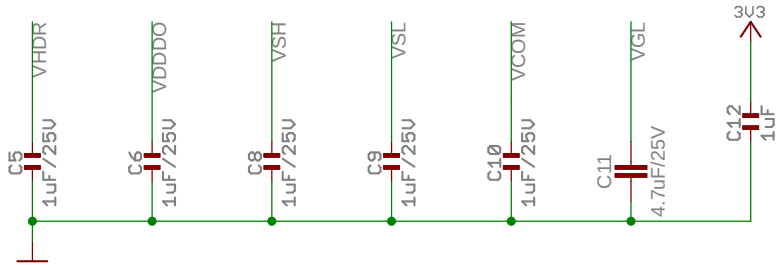
Battery voltage sense

Max BAT_SENSE voltage with a 5V battery: $5.0/3 = 1.66V$
Q6 needs to conduct at least a little bit current at $3.3-1.66V = 1.64V$ gate voltage.

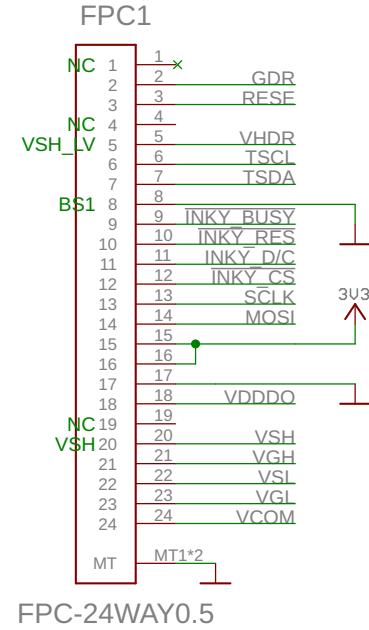


Badger 2040 (PIM607): E Ink Display and Buttons

E Ink display power



E Ink display connector



Five front-side buttons

