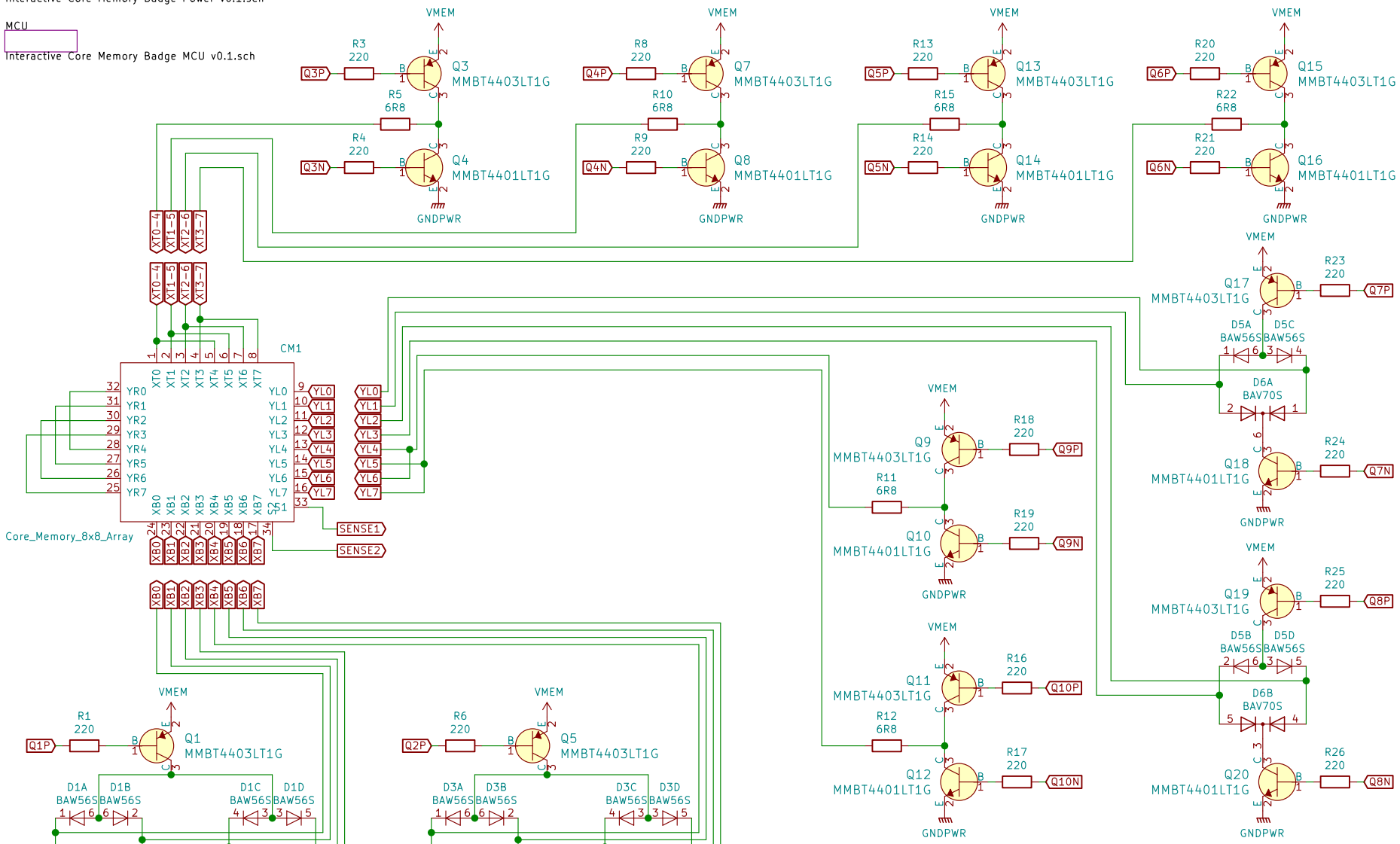
Power

Interactive Core Memory Badge Power v0.1.sch

MCU

Interactive Core Memory Badge MCU v0.1.sch

NOTE: Orientation of core array is the user view.
The user view is the BACK COPPER of the PCB where only the core array is installed.
The other side of the board is the FRONT COPPER PCB where all other compnents are populated, out of sight of the user.
The PCB layout is viewed from the FRONT COPPER PCB side.



Andy Geppert		
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File: Interactive Core Memory Badge v0.1.sch		
Title: Core 64		
Size: A	Date: 2019-07-09	**Rev: 0.1**
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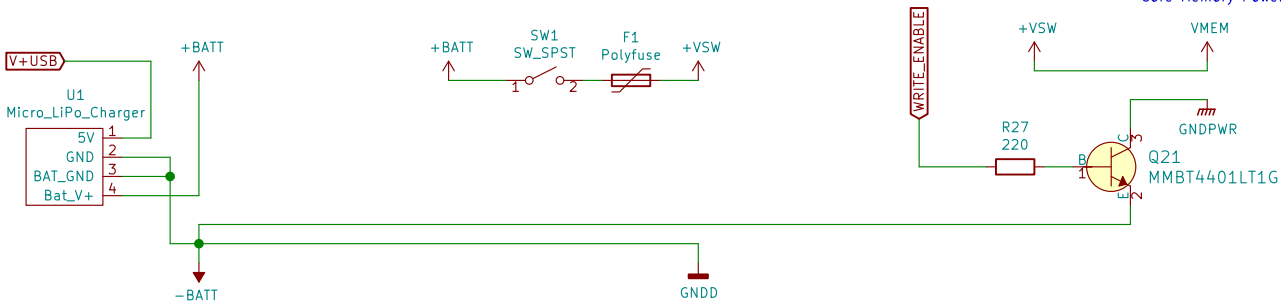
USB V+ pad to charger module to charge from USB.
System is only powered from the LiPo.
LiPo must be connected to run.

Adafruit LiPo Charger Module
Has built-in connection to battery 1S Lipo
Approx. 3-4V operating voltage supplied to WHOLE SYSTEM.

MCU, LED Array, I2C

Core Memory Power



STAR GROUND EVERYTHING TO -BATT

DIGITAL LOGIC GROUND

CORE POWER GROUND

POWER FLOW:

IN: From computer USB 5V into Teensy LC module board (jumper cut to MCU onboard),
OUT: V+USB and -BATT.

IN: V+USB (5V) into Micro LiPo Charger circuit to charge 1S battery
OUT: as +BATT and to onboard connector 1S battery

IN: +BATT (3.7/4.2V) Battery is switched and fused
OUT: +VSW

IN: +VSW
OUT: VMEM to cores controlled by WRITE_ENABLE

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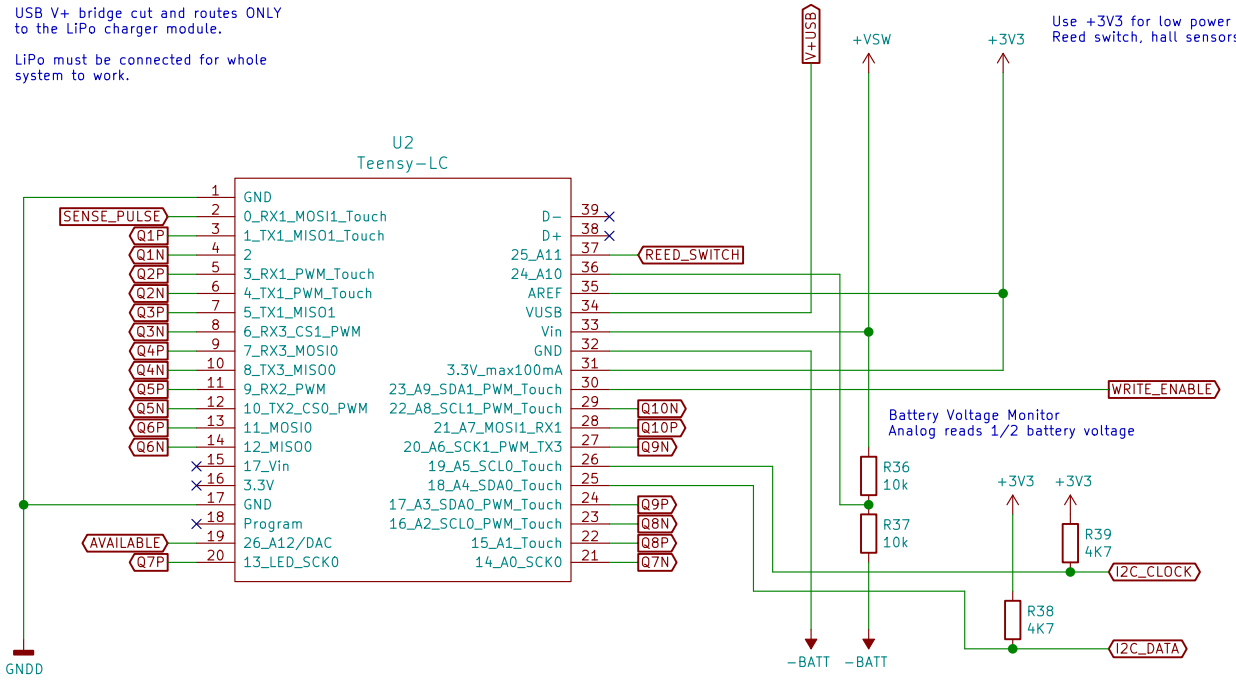
Teensy LC has incoming USB
power/programming on board.

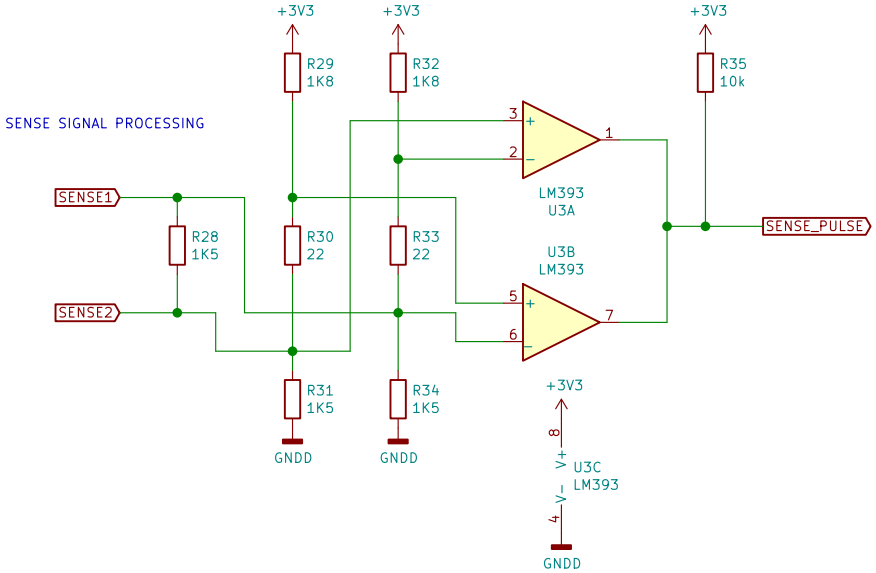
USB V+ bridge cut and routes ONLY
to the LiPo charger module.

LiPo must be connected for whole
system to work.

Use +3V3 for low power accessories:
Reed switch, hall sensors, sense circuit, expansion bus, ...

TO DO EXPANSION FEMALE .100" HEADER:
All power and logic





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Size: A4 | Date: | **Rev:**

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