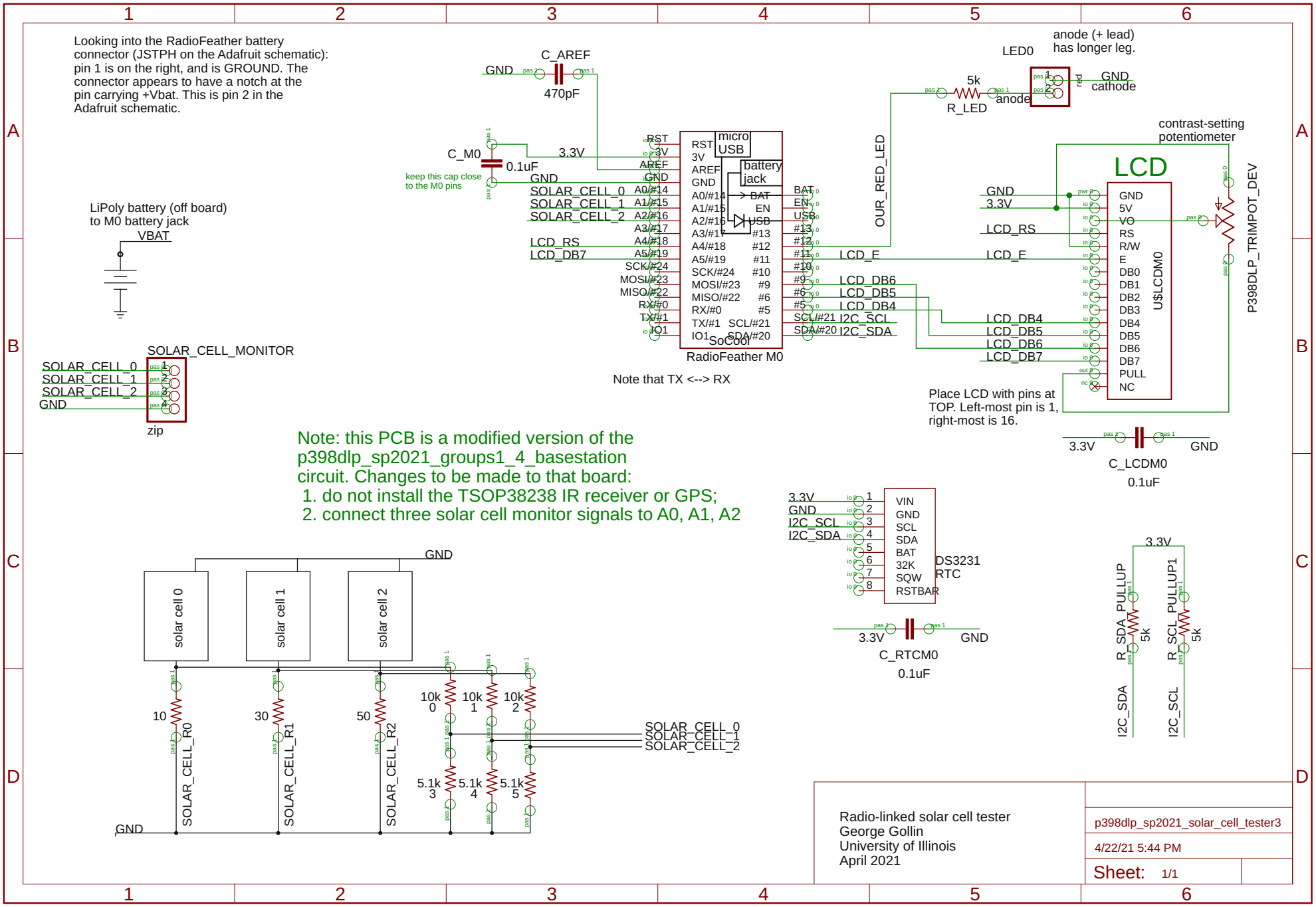
Looking into the RadioFeather battery connector (JSTPH on the Adafruit schematic): pin 1 is on the right, and is GROUND. The connector appears to have a notch at the pin carrying +Vbat. This is pin 2 in the Adafruit schematic.
C_AREF
GND
470pF
C_M0
0.1uF
keep this cap close to the M0 pins
3.3V
GND
SOLAR_CELL_0
SOLAR_CELL_1
SOLAR_CELL_2
LCD_RS
LCD_DB7
RST
3V
AREF
GND
A0/#14
A1/#15
A2/#16
A3/#17
A4/#18
A5/#19
SCK/#24
MOSI/#23
MISO/#22
RX/#0
TX/#1
IO1
micro USB
battery jack
BAT
EN
USB
#13
#12
#11
#10
#9
#6
#5
SCL/#21
SDA/#20
SoCool
RadioFeather M0
Note that TX <--> RX
OUR_RED_LED
LED0
anode (+ lead) has longer leg.
5k
R_LED
anode
red
GND
cathode
LCD_E
LCD_DB6
LCD_DB5
LCD_DB4
I2C_SCL
I2C_SDA
contrast-setting potentiometer
LCD
GND
5V
VO
RS
R/W
E
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
PULL
NC
U$LCDM0
P398DLP_TRIMPOT_DEV
Place LCD with pins at TOP. Left-most pin is 1, right-most is 16.
C_LCDM0
0.1uF
LiPoly battery (off board) to M0 battery jack
VBAT
SOLAR_CELL_MONITOR
SOLAR_CELL_0
SOLAR_CELL_1
SOLAR_CELL_2
GND
zip
Note: this PCB is a modified version of the p398dlp_sp2021_groups1_4_basestation circuit. Changes to be made to that board:
1. do not install the TSOP38238 IR receiver or GPS;
2. connect three solar cell monitor signals to A0, A1, A2
VIN
GND
SCL
SDA
BAT
32K
SQW
RSTBAR
DS3231 RTC
C_RTCM0
0.1uF
solar cell 0
solar cell 1
solar cell 2
10
30
50
SOLAR_CELL_R0
SOLAR_CELL_R1
SOLAR_CELL_R2
10k 0
10k 1
10k 2
5.1k 3
5.1k 4
5.1k 5
R_SDA_PULLUP
R_SCL_PULLUP1
I2C_SDA
I2C_SCL
Radio-linked solar cell tester
George Gollin
University of Illinois
April 2021
p398dlp_sp2021_solar_cell_tester3
4/22/21 5:44 PM
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