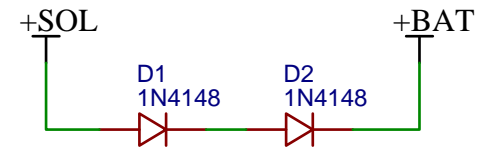
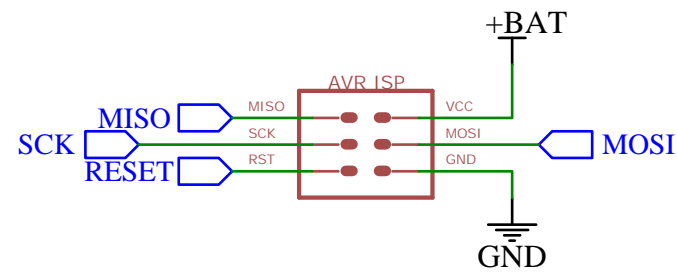
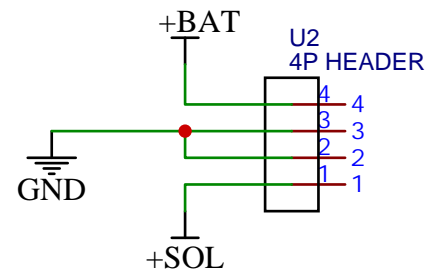


Solar: 5V, 81mA  
Voltage drop: 1x 0.7V  
Charge: 4.3V  
Per battery: 4.3V/3 = 1.43V  
(Direct: 5V/3 = 1.6V)  
Ideal: 1.4-1.8V  
(Max current 0.1C = 100mA)  
Diode 1N4148: max 100mA  
REMOVE D2 FOR 3x Batteries

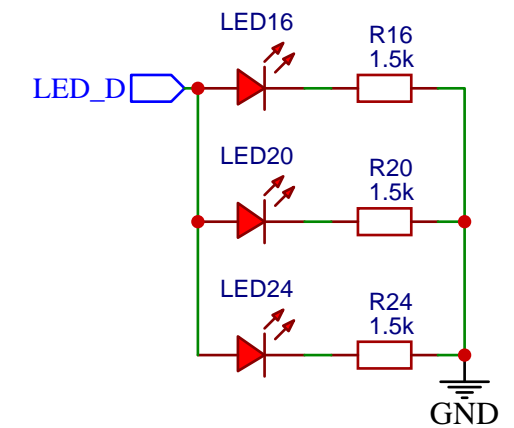
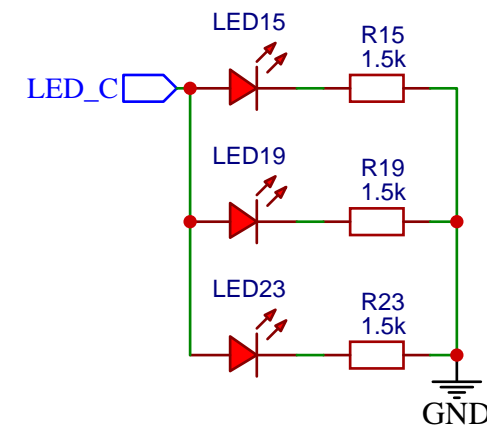
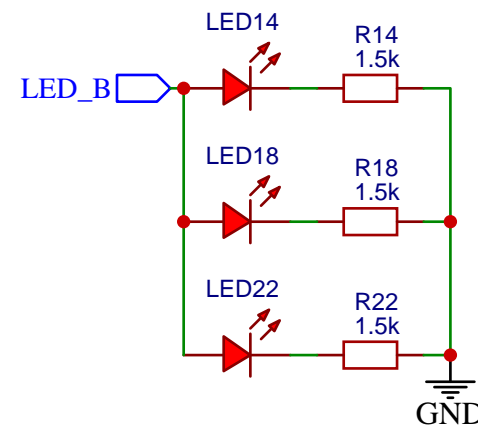
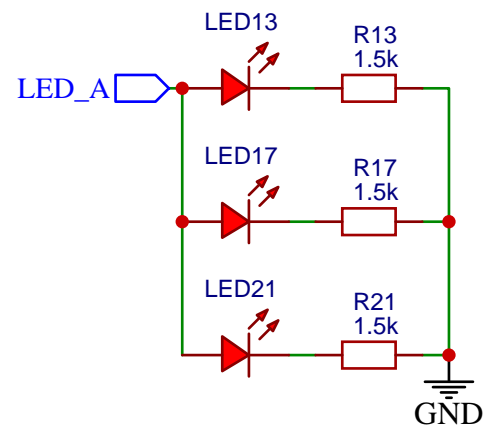
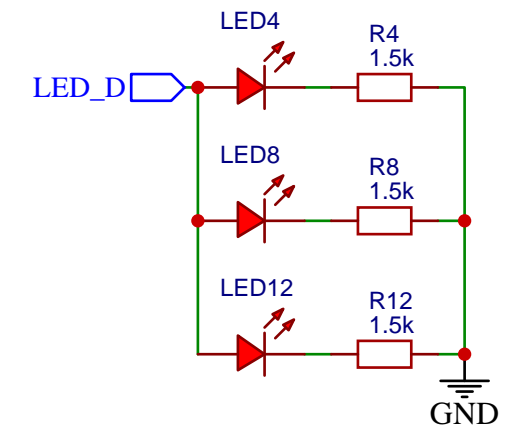
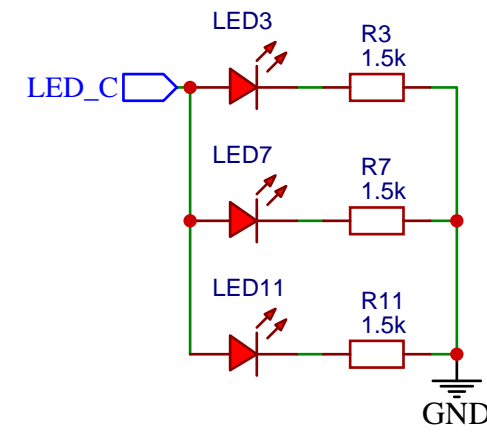
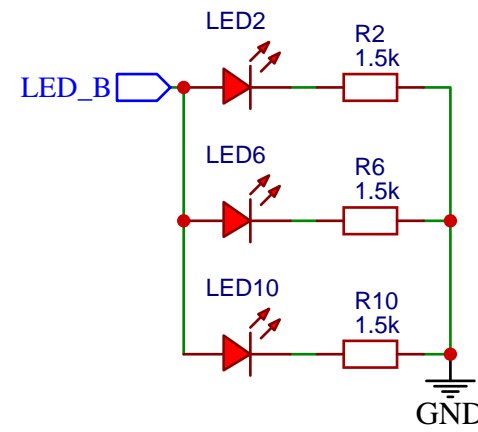
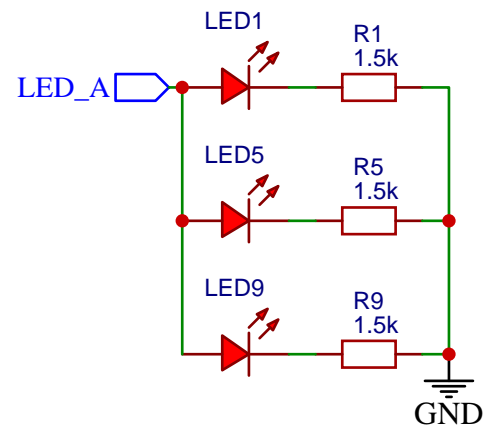


For 2x 1.2V (attiny13a):  
use both D1 & D2  
Drops to 3.6V (1.8V/cell)

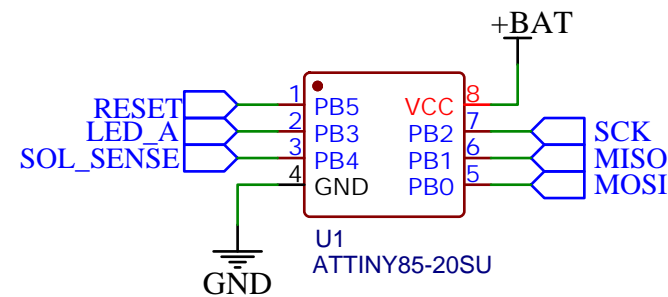


Set fuse to allow programming via RESET  
RSTDISBL unset in hfuse  
SPIEN set

Other fuses:  
BOD 2.7V: BODLEVEL=101

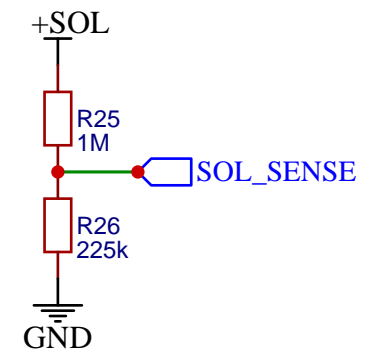
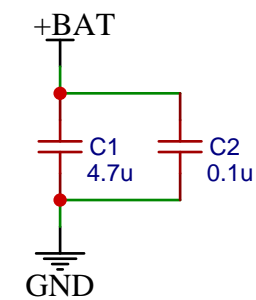


SCK LED\_B  
MISO LED\_C  
MOSI LED\_D



or Attiny13A (same layout),  
to support lower voltages

$$+BAT = 3 \times 1.2 - 1.4V = 3.6 - 4.2V$$



TITLE: LED BALL_03		REV: 1.0
	Company: johnmu.com	Sheet: 1/1
	Date: 2022-12-04	Drawn By: johnmu