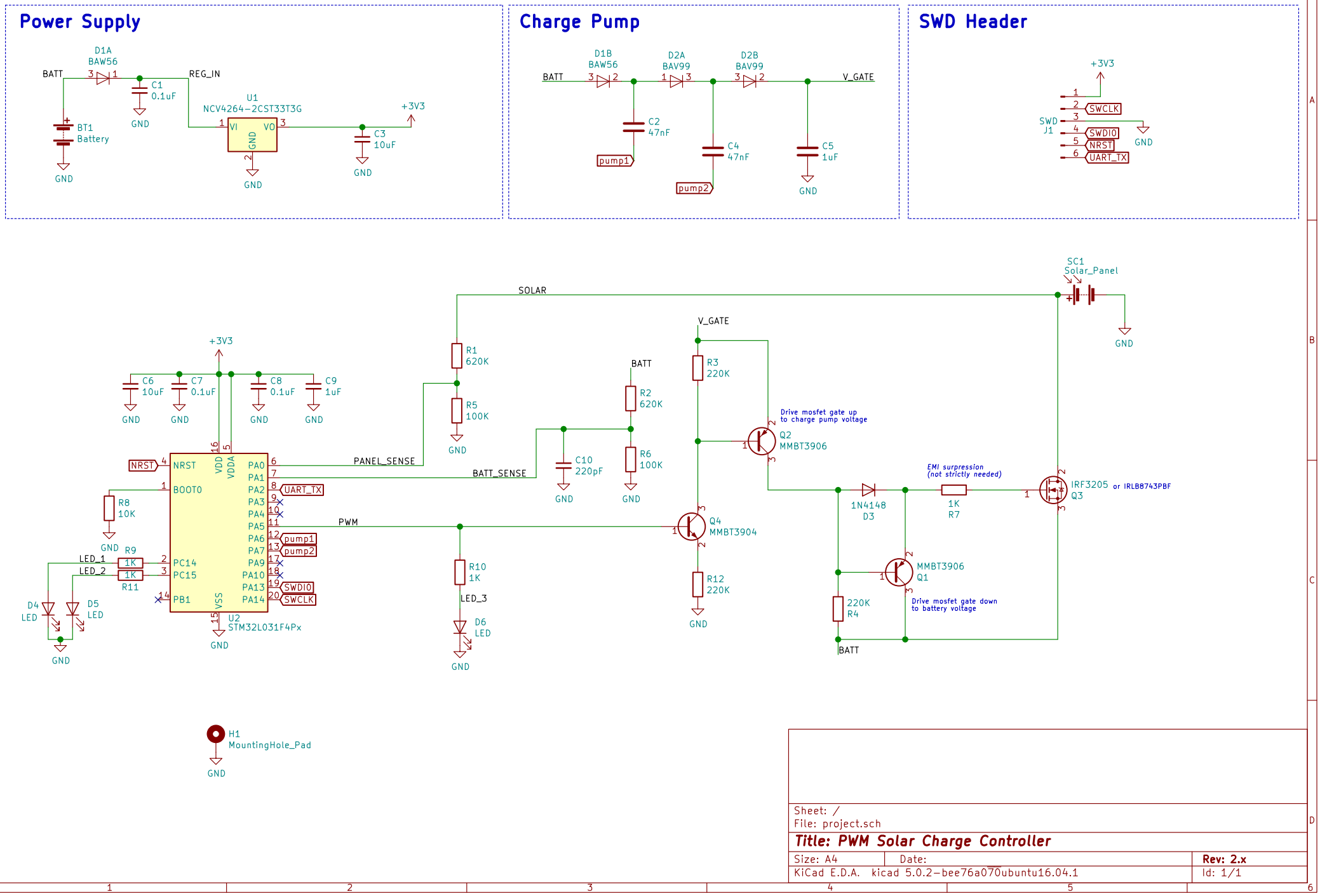
Power Supply
D1A
BAW56
BATT
REG_IN
C1
0.1uF
GND
BT1
Battery
U1
NCV4264-2CST33T3G
VI
VO
GND
+3V3
C3
10uF
Charge Pump
D1B
BAW56
D2A
BAV99
D2B
BAV99
V_GATE
C2
47nF
pump1
C4
47nF
pump2
C5
1uF
SWD Header
+3V3
SWD
J1
SWCLK
SWDIO
NRST
UART_TX
SC1
Solar_Panel
SOLAR
R1
620K
R5
100K
R2
620K
R6
100K
R3
220K
C6
10uF
C7
0.1uF
C8
0.1uF
C9
1uF
C10
220pF
PANEL_SENSE
BATT_SENSE
PWM
Drive mosfet gate up
to charge pump voltage
Q2
MMBT3906
Q4
MMBT3904
R10
1K
LED_3
D6
LED
R12
220K
1N4148
D3
EMI surpression
(not strictly needed)
1K
R7
IRF3205 or IRLB8743PBF
Q3
MMBT3906
Q1
Drive mosfet gate down
to battery voltage
220K
R4
R8
10K
R9
1K
R11
1K
LED_1
LED_2
D4
LED
D5
LED
NRST
BOOT0
PC14
PC15
PB1
VDD
VDDA
VSS
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA9
PA10
PA13
PA14
UART_TX
pump1
pump2
SWDIO
SWCLK
U2
STM32L031F4Px
H1
MountingHole_Pad
Sheet: /
File: project.sch
Title: PWM Solar Charge Controller
Size: A4
Date:
Rev: 2.x
KiCad E.D.A. kicad 5.0.2-bee76a070ubuntu16.04.1
Id: 1/1