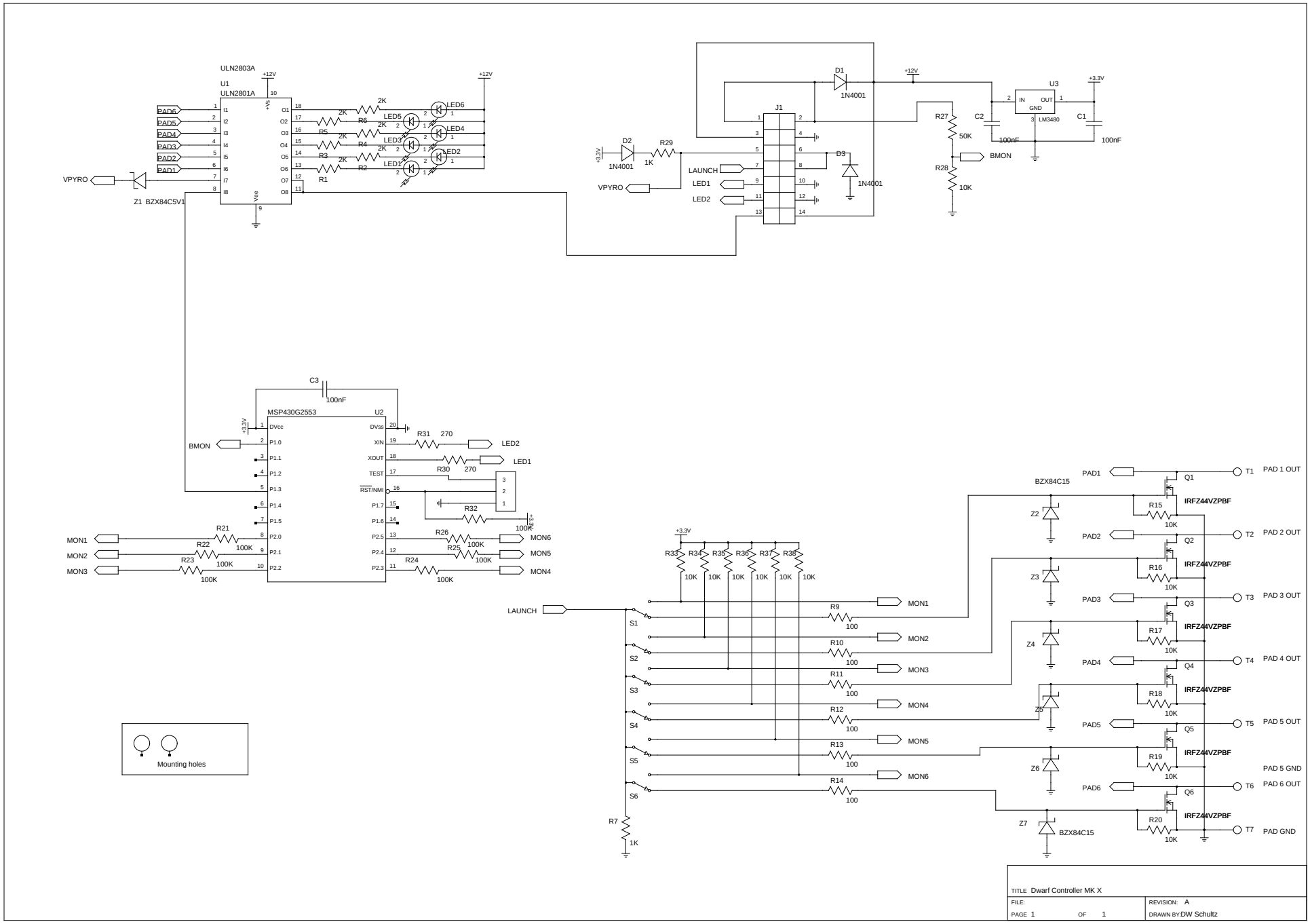
ULN2803A
U1
ULN2801A
+12V
PAD6
PAD5
PAD4
PAD3
PAD2
PAD1
VPYRO
Z1 BZX84C5V1
R1
R2
R3
R4
R5
R6
2K
LED1
LED2
LED3
LED4
LED5
LED6
D1
1N4001
D2
1N4001
R29
1K
+3.3V
J1
LAUNCH
LED1
LED2
D3
1N4001
R27
50K
R28
10K
C2
100nF
U3
IN
OUT
GND
LM3480
C1
100nF
BMON
C3
100nF
MSP430G2553
U2
DVcc
DVss
P1.0
P1.1
P1.2
P1.3
P1.4
P1.5
P2.0
P2.1
P2.2
XIN
XOUT
TEST
RST/NMI
P1.7
P1.6
P2.5
P2.4
P2.3
R31 270
R30 270
R32
100K
R21
100K
R22
100K
R23
100K
R26
100K
R25
100K
R24
100K
MON1
MON2
MON3
MON4
MON5
MON6
R33
R34
R35
R36
R37
R38
10K
S1
S2
S3
S4
S5
S6
R9
R10
R11
R12
R13
R14
100
R7
1K
Mounting holes
BZX84C15
Z2
Z3
Z4
Z5
Z6
Z7
BZX84C15
PAD1
PAD2
PAD3
PAD4
PAD5
PAD6
Q1
Q2
Q3
Q4
Q5
Q6
IRFZ44VZPBF
R15
R16
R17
R18
R19
R20
10K
T1
T2
T3
T4
T5
T6
T7
PAD 1 OUT
PAD 2 OUT
PAD 3 OUT
PAD 4 OUT
PAD 5 OUT
PAD 5 GND
PAD 6 OUT
PAD GND
TITLE Dwarf Controller MK X
FILE:
REVISION: A
PAGE 1 OF 1
DRAWN BY DW Schultz