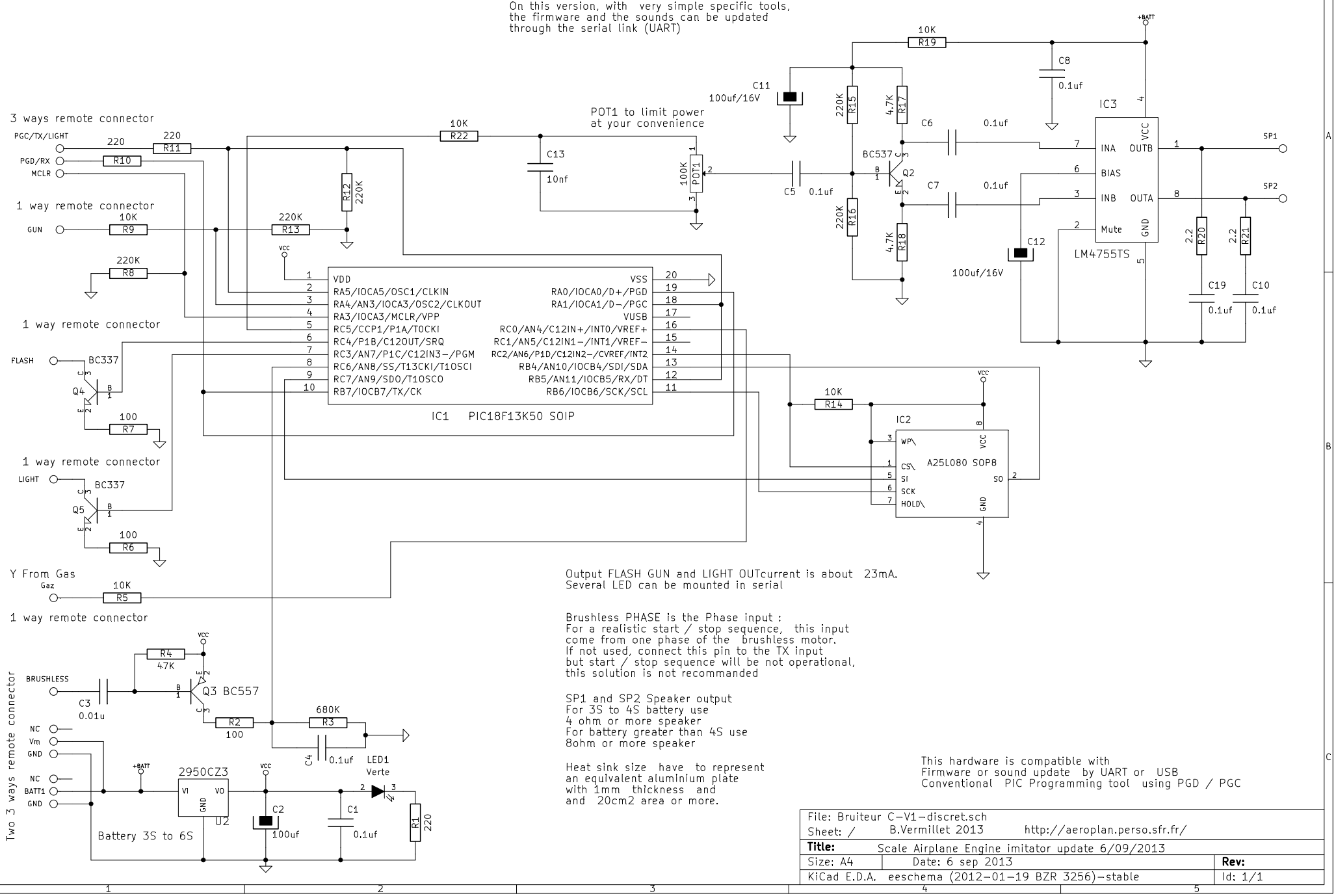
On this version, with very simple specific tools,
the firmware and the sounds can be updated
through the serial link (UART)
3 ways remote connector
PGC/TX/LIGHT
PGD/RX
MCLR
1 way remote connector
GUN
1 way remote connector
FLASH
1 way remote connector
LIGHT
Y From Gas
Gaz
1 way remote connector
Two 3 ways remote connector
BRUSHLESS
NC
Vm
GND
NC
BATT1
GND
POT1 to limit power
at your convenience
IC1 PIC18F13K50 SOIP
VDD
RA5/IOCA5/OSC1/CLKIN
RA4/AN3/IOCA3/OSC2/CLKOUT
RA3/IOCA3/MCLR/VPP
RC5/CCP1/P1A/T0CKI
RC4/P1B/C12OUT/SRQ
RC3/AN7/P1C/C12IN3-/PGM
RC6/AN8/SS/T13CKI/T1OSCI
RC7/AN9/SDO/T1OSCO
RB7/IOCB7/TX/CK
VSS
RA0/IOCA0/D+/PGD
RA1/IOCA1/D-/PGC
VUSB
RC0/AN4/C12IN+/INT0/VREF+
RC1/AN5/C12IN1-/INT1/VREF-
RC2/AN6/P1D/C12IN2-/CVREF/INT2
RB4/AN10/IOCB4/SDI/SDA
RB5/AN11/IOCB5/RX/DT
RB6/IOCB6/SCK/SCL
IC2
A25L080 SOP8
WP\
CS\
SI
SCK
HOLD\
VCC
SO
GND
IC3
LM4755TS
INA
BIAS
INB
Mute
OUTB
OUTA
GND
VCC
SP1
SP2
Q2 BC537
Q3 BC557
Q4 BC337
Q5 BC337
2950CZ3
U2
VI
VO
GND
Battery 3S to 6S
LED1
Verte
+BATT
VCC
R1 220
R2 100
R3 680K
R4 47K
R5 10K
R6 100
R7 100
R8 220K
R9 10K
R10 220
R11 220
R12 220K
R13 220K
R14 10K
R15 220K
R16 220K
R17 4.7K
R18 4.7K
R19 10K
R20 2.2
R21 2.2
R22 10K
C1 0.1uf
C2 100uf
C3 0.01u
C4 0.1uf
C5 0.1uf
C6 0.1uf
C7 0.1uf
C8 0.1uf
C10 0.1uf
C11 100uf/16V
C12 100uf/16V
C13 10nf
C19 0.1uf
POT1 100K
Output FLASH GUN and LIGHT OUTcurrent is about 23mA.
Several LED can be mounted in serial
Brushless PHASE is the Phase input :
For a realistic start / stop sequence, this input
come from one phase of the brushless motor.
If not used, connect this pin to the TX input
but start / stop sequence will be not operational,
this solution is not recommanded
SP1 and SP2 Speaker output
For 3S to 4S battery use
4 ohm or more speaker
For battery greater than 4S use
8ohm or more speaker
Heat sink size have to represent
an equivalent aluminium plate
with 1mm thickness and
and 20cm2 area or more.
This hardware is compatible with
Firmware or sound update by UART or USB
Conventional PIC Programming tool using PGD / PGC
File: Bruiteur C-V1-discret.sch
Sheet: /
B.Vermillet 2013
http://aeroplan.perso.sfr.fr/
Title: Scale Airplane Engine imitator update 6/09/2013
Size: A4
Date: 6 sep 2013
Rev:
KiCad E.D.A. eeschema (2012-01-19 BZR 3256)-stable
Id: 1/1