

TR1, TR2 amplifier draws 5-6 mA @ 5V
Produces usable signal from 5.2V down to 4.2V

VCCPOT draws 2-3 mA @5V

For VCCPOT = 5V
Fit R4, R18, R21, D1, R13
Jumper JP4 West
Leave SJ1, SJ2, SJ3 open.

For VCCPOT = 3.3V
Omit D1, R13.
Change R4, R18, R21 to 680R
Jumper JP4 East or jumper SJ5
Connect SJ1, SJ2, SJ3.

ATTENTION

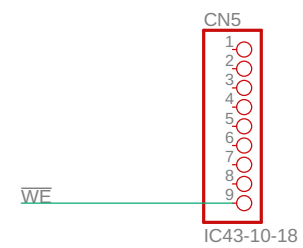
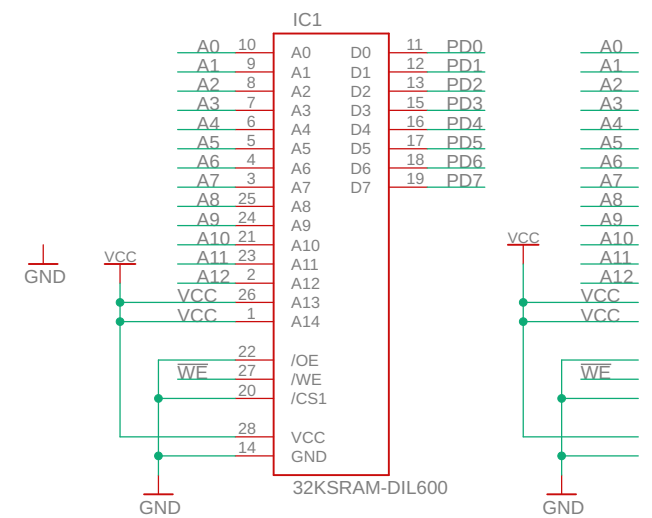
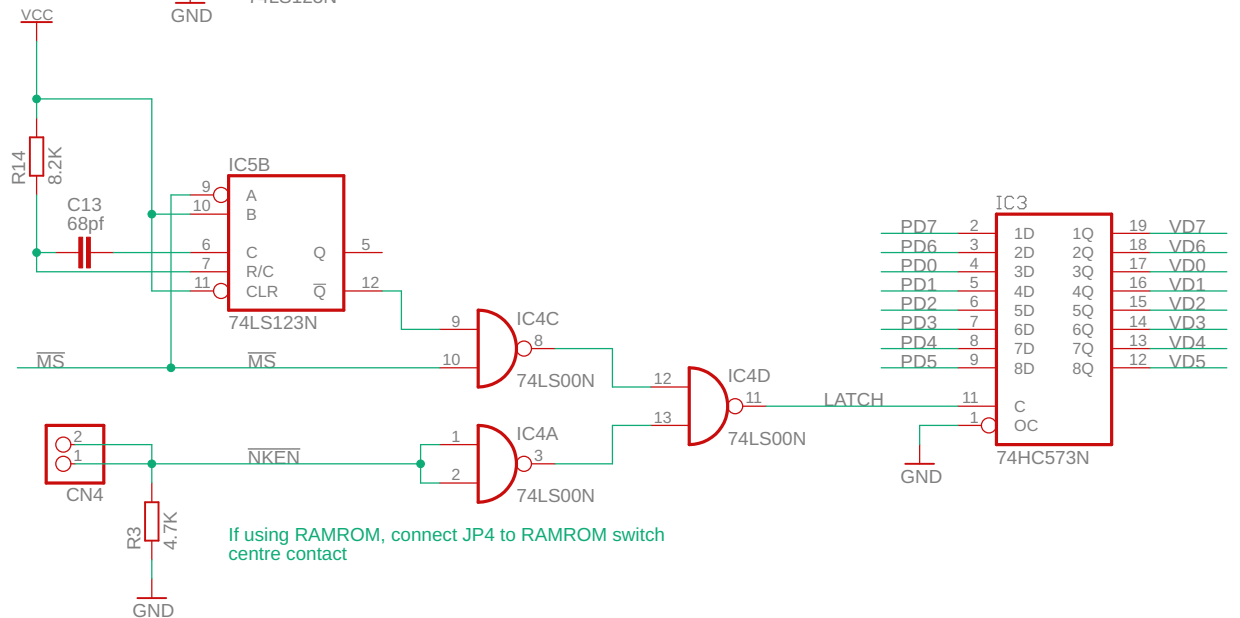
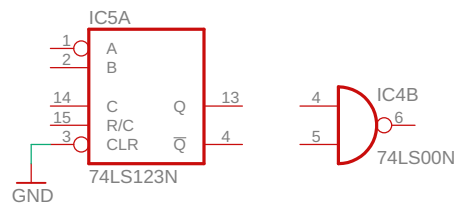
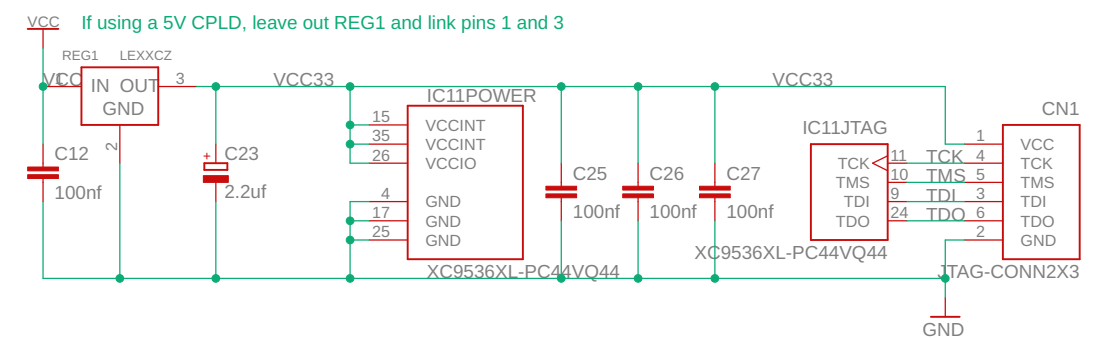
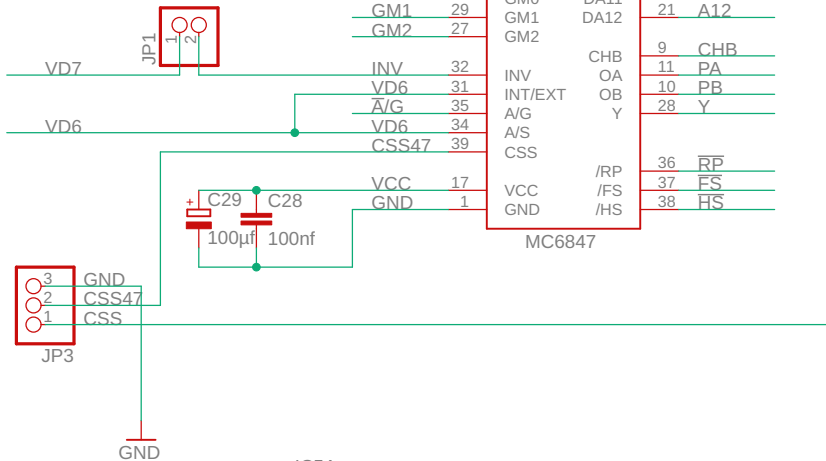
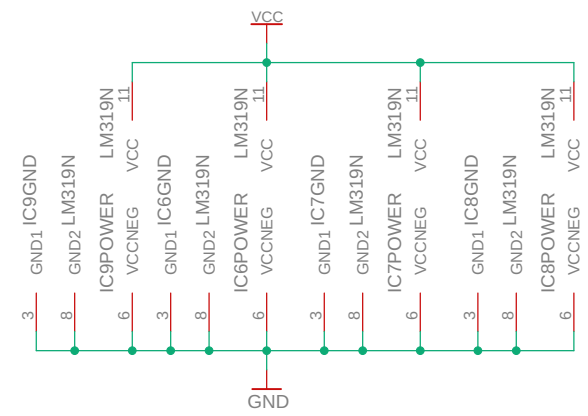
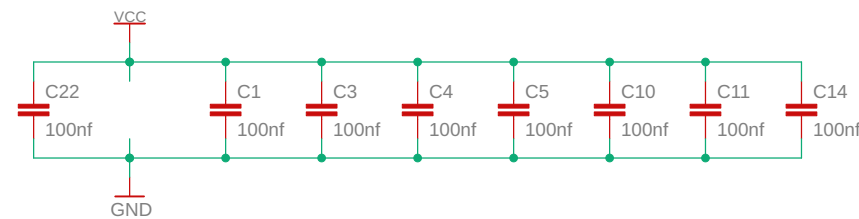
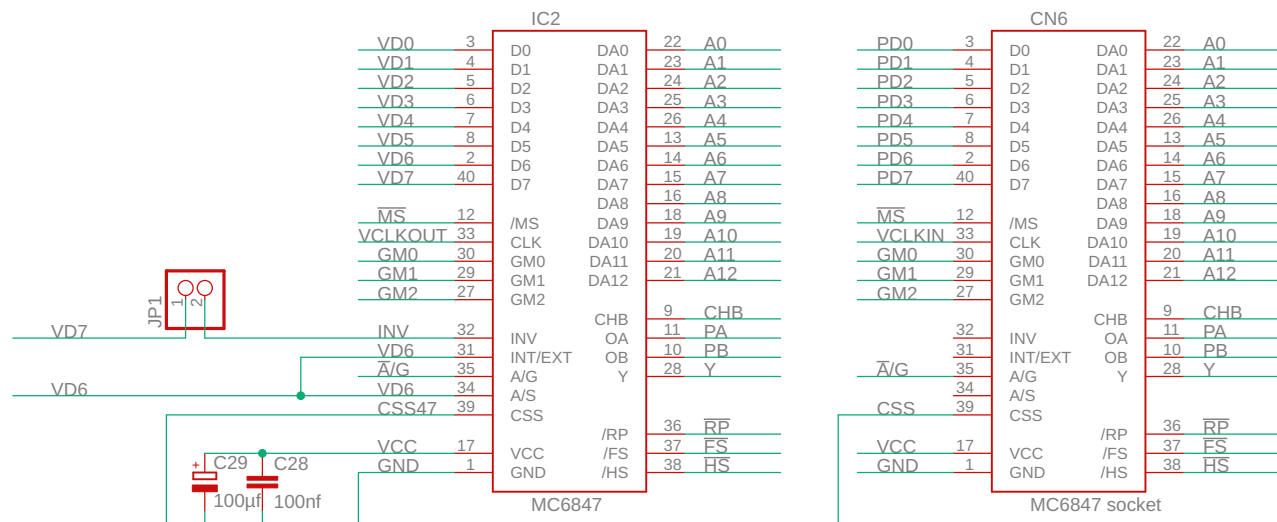
Mandatory changes :

1) Fit a 10K resistor between the base of each transistor and it's input signal. This can be done by cutting the base lead short and fitting the resistor between it and the base pad on the PCB.

2) fit a 33R between pad P18 and the HS pin of the 6847 (pin 37)

Connections at 6 pin DIN as BBC micro :
1 - Red
2 - Green
3 - Blue
4 - Sync
5 - Ground
6 - +5V (centre pin)

IC11LOGIC	
LATCH	34
LATCHP	34
NKEN	36
CSS	37
HS	38
FS	39
A/G	40
VCLKIN	41
VCLKOUT	42
GM0	43
LTXT	44
FB2MC5/GTS2	FB2MC6/GSR
FB3MC3/GTS1	FB2MC7
FB2MC4	FB2MC8
FB2MC2	FB2MC9
FB2MC1	FB2MC10
FB1MC1	FB2MC11
FB1MC2	FB2MC12
FB1MC4	FB2MC13
FB1MC3/GCK1	
FB1MC5/GCK2	
FB2MC14	22 GREEN1P
FB2MC15	21 BLUEP
FB2MC16	20 CSYNCP
FB2MC17	19 NTSCPAL
FB1MC8	18 P18
FB1MC9	16 P16
FB1MC10	14 VCLKINV
FB1MC11	13 VCLKDEL
FB1MC12	12 P12
FB2MC14	33 MS
FB2MC7	32 RED1
FB2MC8	31 GREEN1
FB2MC9	30 BLUE1
FB2MC10	29 SYNC1
FB2MC11	28 SWITCH
FB2MC12	27 REDP
FB2MC13	23 GREENP



****NOTE****
 R14/C13 correct if using ST 74HC123, which has a timing constant of 0.45
 If using a different 74xx123, please check the datasheet
 for the correct value of C13/R14 to give a delay of approx 250ns
 Generally this will be $t_{ns} = R_K * C_{pf} * const$
 To use old HC123 based noisekiller fit IC4 and IC5, R14, R15 and leave JP2 disconnected.
 To use CPLD based noisekiller, remove IC4 and IC5 and connect JP2

IC1 and IC2 are alternates, fit only one !

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