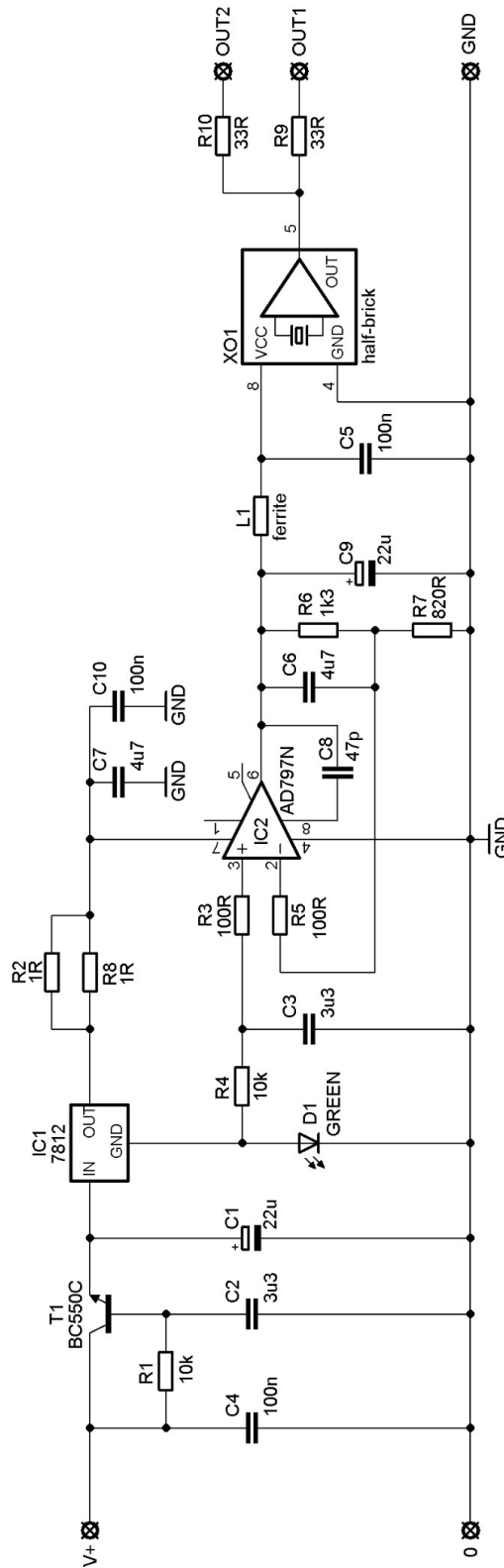


# The Flea, DIY version 3.0 by Ray

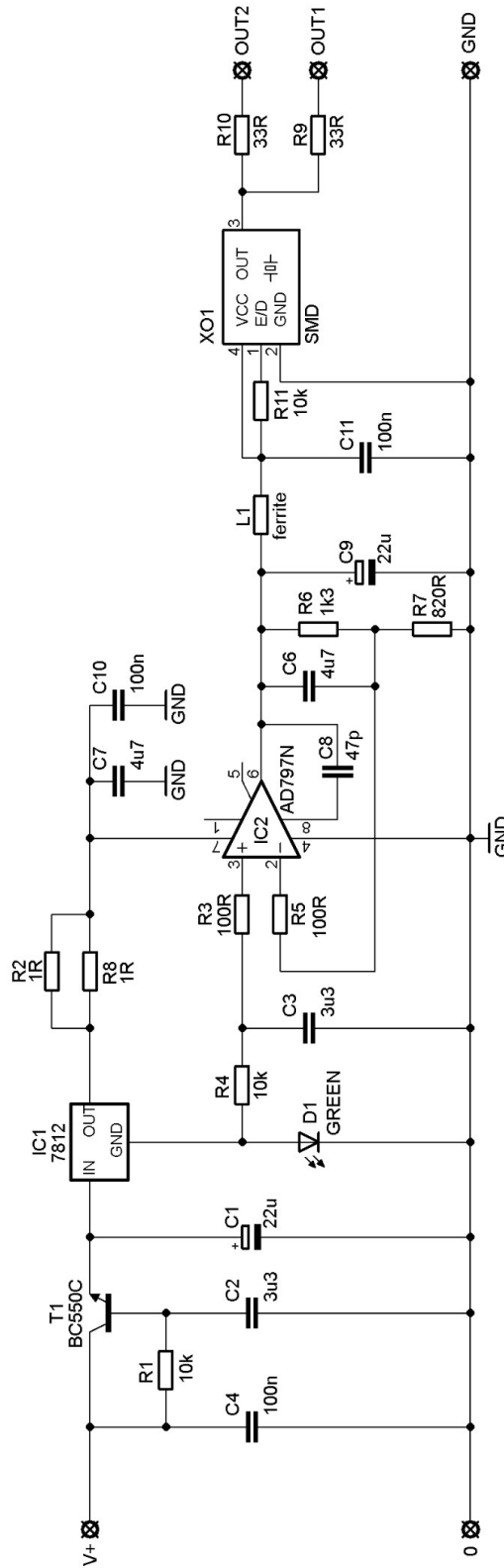
Schematic diagram, with half-brick oscillator (Tentlabs XO)



**Not for commercial use! For DIY purposes only!**

# The Flea, DIY version 3.0 by Ray

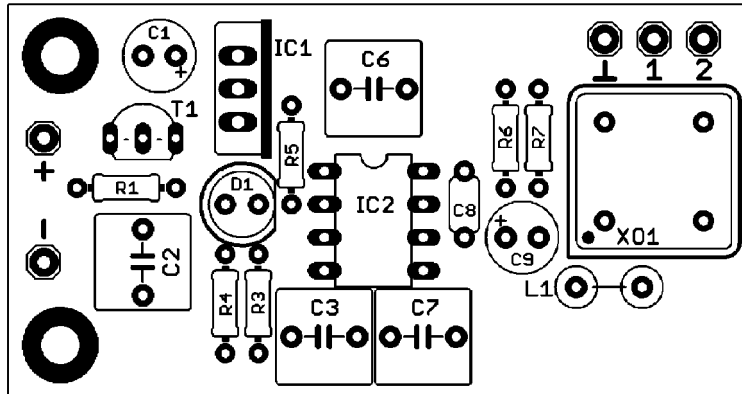
Schematic diagram, with SMD oscillator (5x7 or 3,2x2,5 mm)



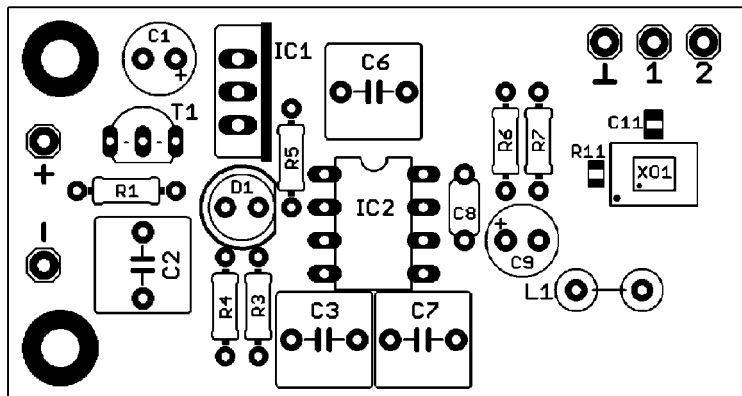
**Not for commercial use! For DIY purposes only!**

# The Flea, DIY version 3.0 by Ray

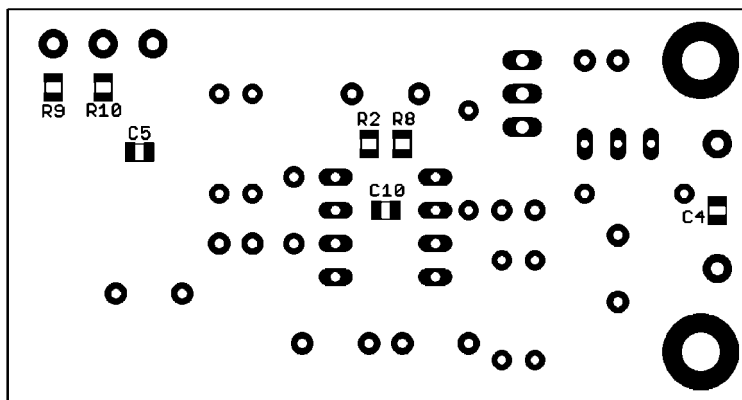
SILKSCREEN and component placement



TOP layer with half-brick oscillator  
mount C5 on BOTTOM layer



TOP layer with SMD oscillator  
mount C11 and (optional) R11 on TOP layer



BOTTOM layer

**Not for commercial use! For DIY purposes only!**

# The Flea, DIY version 3.0 by Ray

## Partslist

Part no.	Value:	Type:	Farnell:
R1	10k/1%	1/8W axial	934-2419
R2	1R0/1%	0805 SMD	923-7127
R3	100R/1%	1/8W, axial	934-2397
R4	10k/1%	1/8W, axial	934-2419
R5	100R/1%	1/8W, axial	934-2397
R6	1k3/1%	1/8W, axial, for 5.0V output	934-2575
	330R/1%	1/8W, axial, for 3.3V output	934-3032
R7	820R/1%	1/8W, axial, for 5.0V output	934-3563
	470R/1%	1/8W, axial, for 3.3V output	934-3245
R8	1R0/1%	0805 SMD	923-7127
R9	33R/1%	0805 SMD	923-7305
R10	33R/1%	0805 SMD	923-7305
R11	10k/1% #	optional, 0805 SMD	244-7553
C1	22u/25V	Rubycon ZLG	128-1815
C2	3u3	Wima MKS2	189-0142
C3	3u3	Wima MKS2	189-0142
C4	100n	0805 SMD	175-9265/141-4664
C5	100n	0805 SMD	175-9265/141-4664
C6	4u7/10u	Wima MKS2	344-2320
C7	4u7	Wima MKS2	344-2320
C8	47p	NP0 or C0G ceramic, 5mm	121-6413
C9	22u/25V	Rubycon ZLG	128-1815
C10	100n	0805 SMD	175-9265/141-4664
C11	100n #	optional, 0805 SMD	175-9265/141-4664
L1	FRH035060-F	2x ferrite bead	211-2984/322-7445
D1	TLHG5400	5mm LED green	146-9454
T1	BC550C	TO-92	298-5328/245-3798
IC1	7812	TO-220	975-6124/146-7365
IC2	AD797AN	DIL-8	960-3778
XO1	16,9344MHz*	Tentlabs XO (half-brick) or SMD oscillator	

# mount C11 only if you are using an SMD oscillator  
mount R11 only if your SMD oscillator requires a pull-up resistor  
(see your datasheet for exact value)

\* frequency depending on your player

**Not for commercial use! For DIY purposes only!**