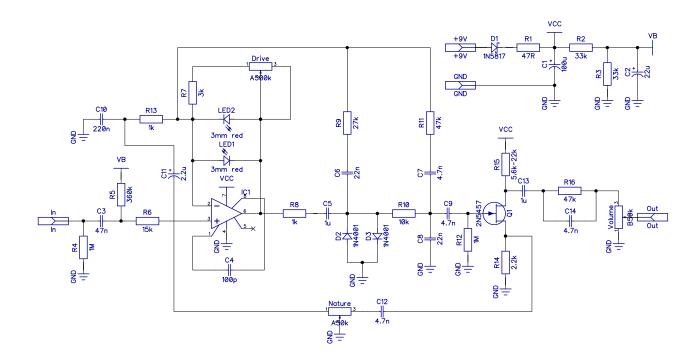




Based on BJFE Honeybee PCB artwork ©2017 drdFX Release date: 2017. 08. 31.

Kingbee is a clone of the BJFE Honeybee Overdrive. It is a very sweet sounding low gain overdrive.

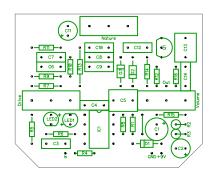
SCHEMATIC

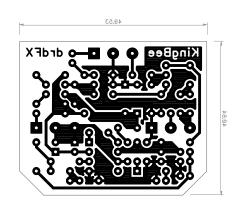


BOM							
Resistors		Capacitors		Semiconductors		Others	
R1	47R	C1	100u	D1	1N5817	Drive	A500k
R2	33k	C2	22u	D2	1N4001	Nature	A50k
R3	33k	C3	47n	D3	1N4001	Volume	B50k
R4	1M	C4	100p	LED1	3mm red		
R5	360k	C5	1u	LED2	3mm red		
R6	15k	C6	22n	Q1	2N5457		
R7	3k	C7	4.7n	IC1	CA3130		
R8	1k	C8	22n				
R9	27k	C9	4.7n				
R10	10k	C10	220n				
R11	47k	C11	2.2u				
R12	1M	C12	4.7n				
R13	1k	C13	1u				
R14	2.2k	C14	4.7n				
R15	5.6k						
R16	47k						

LAYOUT

Print out the PCB design without any resizing options and make sure you switch off the "fit to page" option. The design is free for personal/home use and you also may build one or two for your friends, but the PCB layout is my artwork, therefore protected by copyright and is not permitted to be used for commercial purposes.





NOTES



The pots are board mounted to the bottom of the board. The square pads mark the lug 1, for the numbering of the lugs see the picture.

In my opinon the effect sounds just great the way it is, however you still might want to try fiddling around a bit to get more distortion out of it. You can achieve this either by increasing the Drive pot to 1M or you can also replace the diodes and LEDs with lower forward voltage diodes, such as Ge or Schottky diodes. These are common things to try, and honestly since I find the effect such a great

design I have not tried these (you can't do any damage with these mods, so "socket'n'try"). The opamp in use (CA3130) is an obsolete one.

You can still find it in some shops, but not too cheap. You can try any common single opamps here (think of TL071), but then you might need to remove the C4 compensating capacitor. Also you can experiment with different JFETs, I have used J202 with good results. I would recommend to substitute R15 with a pot or trimmer, find the correct value where the effect sounds best and then use a fixed resistor with that value.

DRILLING TEMPLATES

Here are three templates for the top of the box for the various box sizes. The design fits in both 1590B and 125B, however if you are less experienced you may find the 125B enclosure easier to work with.

