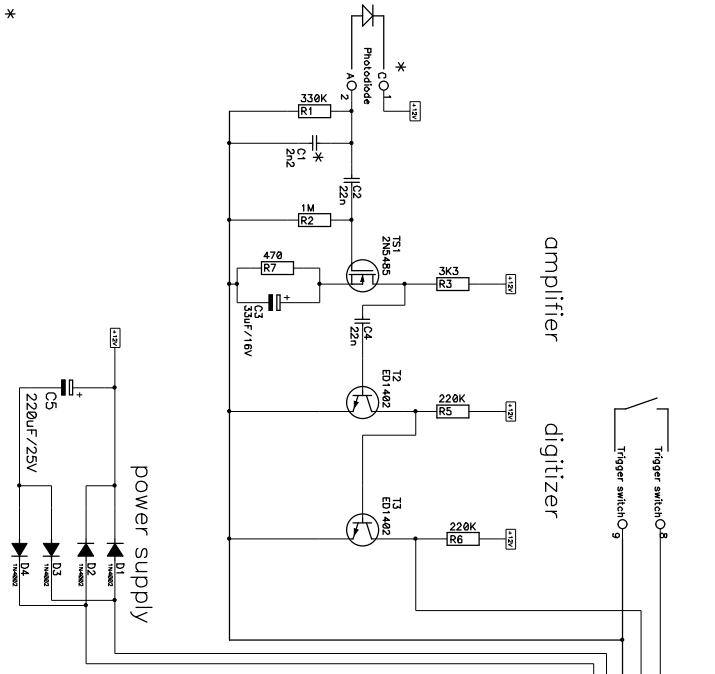
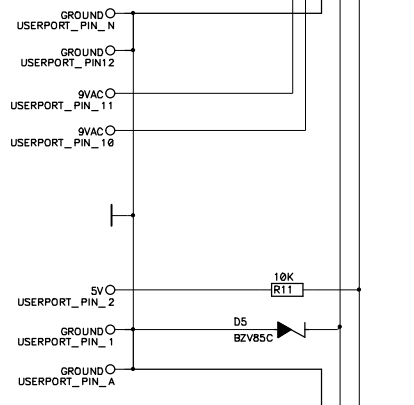


Electronics in gun

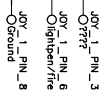


Userport connector



The resistor R11 is used to pull up the switch. Because the pull-up in the front panel is not sufficient, it should not be required, but it doesn't hurt either. This is required because of pulldown R8.

VIC20/C64 Joy-1 connector



Photodiode:
Originally the S1R uses the MEU11
This can be replaced by the SFH213
Basically only photo diode that can detect visible light and is fast enough to detect a pixel will autohite for a lightgun.
Infrared photodiodes are not useable as TV's are designed to output visible light and not infrared.

Capacitor C1:
The function of C1 is most likely to filter the light signals to an effectively wider pulse at the final output.
However it does not improve accuracy on a VIC20/C64 and is therefore it is best to be removed.
The benefit of stretched signals are only for computers that do not have a dedicated hardware lightpen input
and therefore need to poll for the signal. Because polling is much slower, the signal must be wider in order not to be missed.

Transistor
The ED 1402 can be replaced with the BC547C (drop in replacement)

Title		Stack light rifle for VIC20 and C64	
Size	Number	Rev	
A2	/	1.1	
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