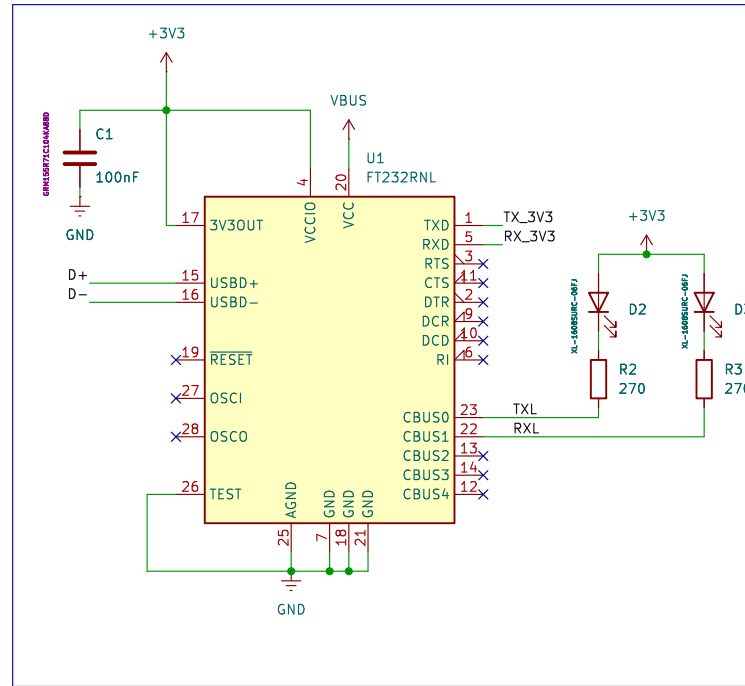
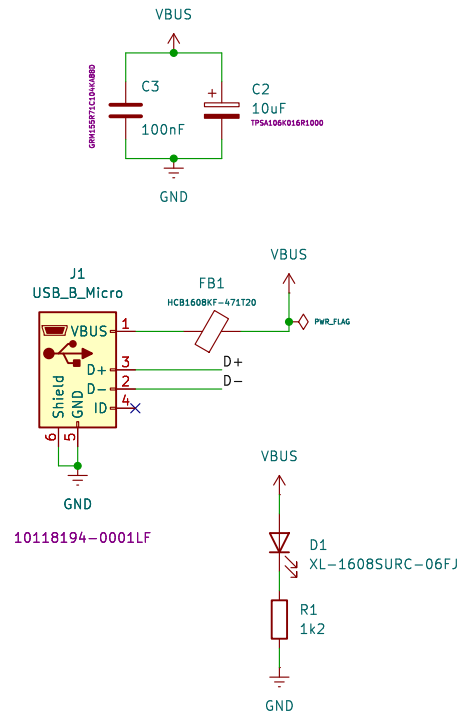


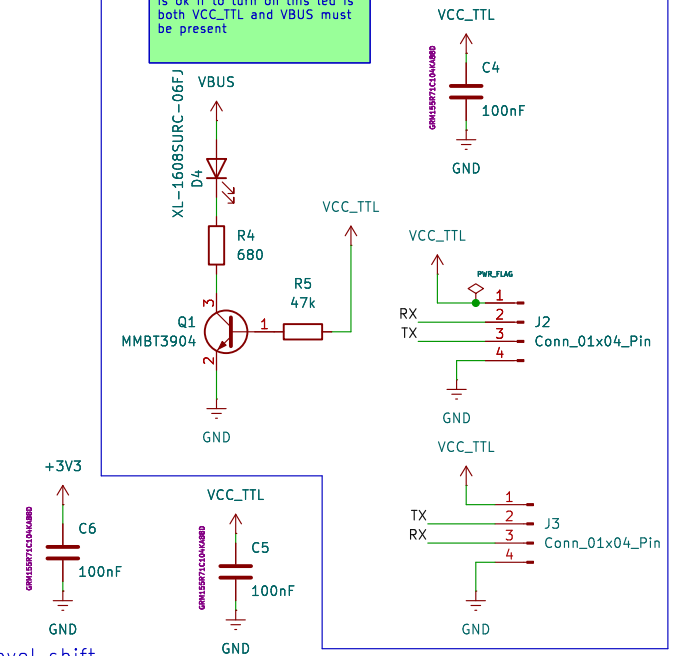
## USB side



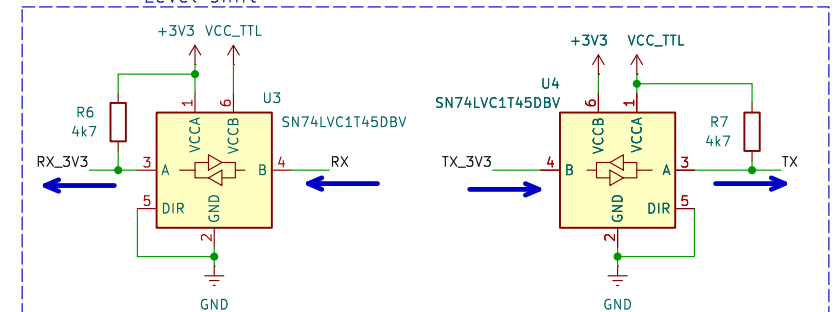
## TTL side

Is not reliable to connect power led directly to VCC\_TTL (duet to its voltage range) I use VCC\_TTL to turn on a NPN, and the light a led. Is ok if to turn on this led is both VCC\_TTL and VBUS must be present

VCC\_TTL can range from 1.6V to 5V



## Level shift



## Mastupristi Circuitry

Sheet: /  
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**Title: Usb/TTL 1.8V to 5V interface**

Size: A4 Date: 2025-03-28  
KiCad E.D.A. 9.0.0

Rev: 1  
Id: 1/1