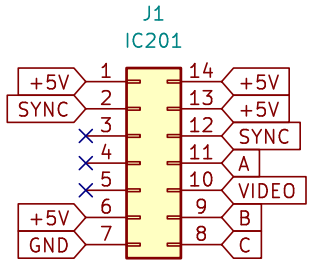
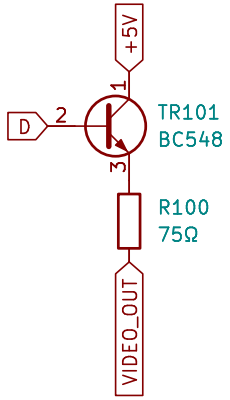
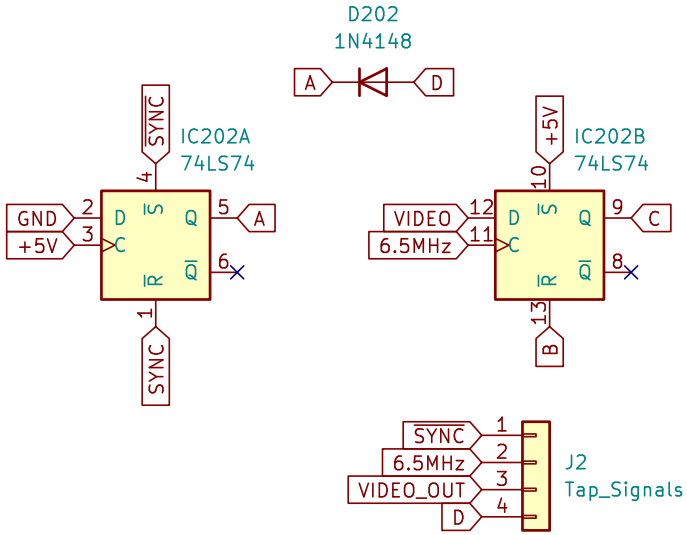
Original 74LS08 socket on v2.6 main board

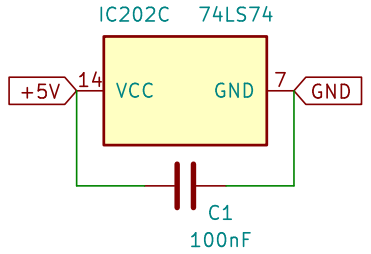


Move TR101 from main board to daughterboard
(or remove and install new)



New daughterboard





Four tap wires (see images):
[1] $\overline{\text{SYNC}}$ signal from 74LS74 pin 6 (2nd chip from bottom on left)
[2] 6.5MHz signal from left/west pin of 47pF capacitor (6th capacitor from bottom, between 470Ω resistor & 47pf capacitor)
[3] VIDEO_OUT signal to TR101 original emitter
[4] D signal to TR101 original base, or R30/R32 connection point.

Common points on v2.6 main board:
Point A: 74LS08 pin 11 to R201/D201
Point B: 74LS08 pin 9 to R201/D201/C201
Point C: 74LS08 pin 8 to R30
Point D: R30, R32, R100, TR101 base
Point E: 74LS08 pin 6 to R32

Other changes:
Move TR101 (BC548B) from main board to daughterboard.
Remove R100 (3.3KΩ) between point D and GND.
New R100 (75Ω) on daughterboard.
New D202 on daughterboard.
R32 now pulled up to +5V (point E) via original 74LS08 pin 6.

Original design by Dave Curran @ Tynemouth Software
www.tynemouthsoftware.co.uk

www.youtube.com/@Brfff
Brett Hallen

Sheet: /
File: ZX80_Pixel_Sync.kicad_sch

Title: Minstrel 2 v2.6 Pixel Sync Fix

Size: A5	Date: 6–May–2025	**Rev: Rev A**
KiCad E.D.A. 9.0.0		Id: 1/1