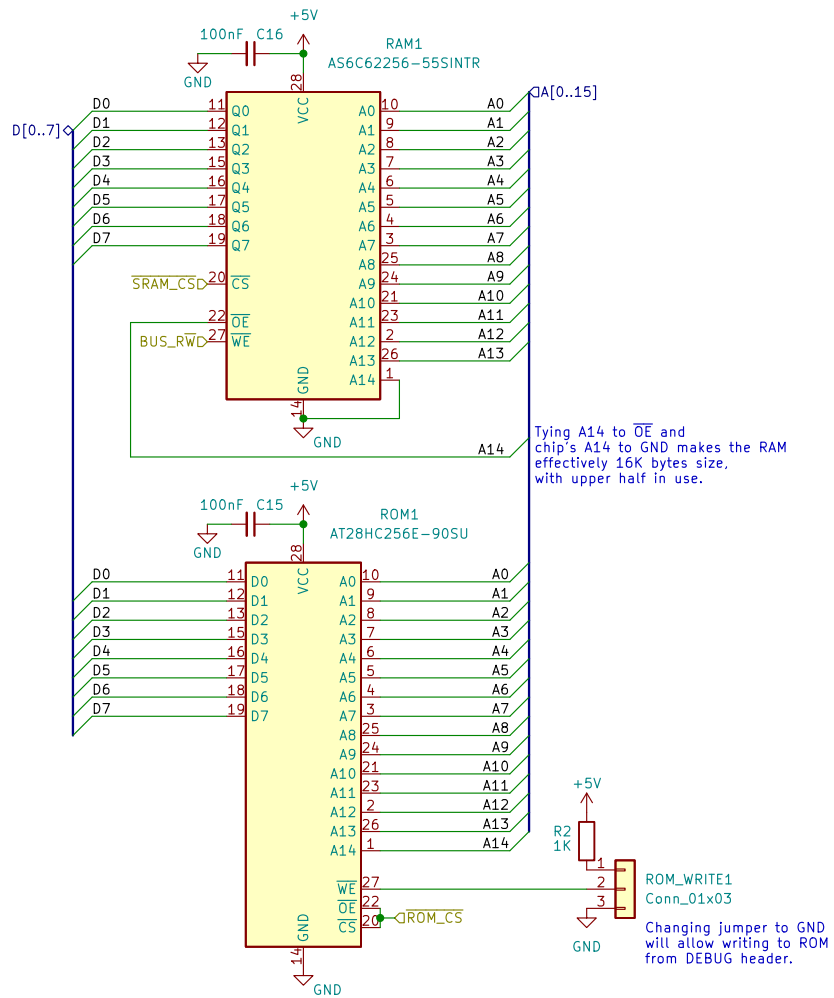




## System Memory

RAM: 0x0000 - 0x3FFF

ROM: 0x8000 - 0xFFFF



zrthxn

Sheet: /Memory Unit/  
File: memory.kicad\_sch

**Title: 8puter**

Size: A4 Date:  
KiCad E.D.A. eeschema 6.0.4-1.fc35

Rev: 1.0  
Id: 2/7

0x6000 – 0x600F

Controller's  $\overline{RD}$  (PC0) is set low.  
USB data is shifting onto PORT A.  
Controller pulls  $\overline{RXF}$  low, PORT A is latched  
onto DATA bus and IRQ is set.

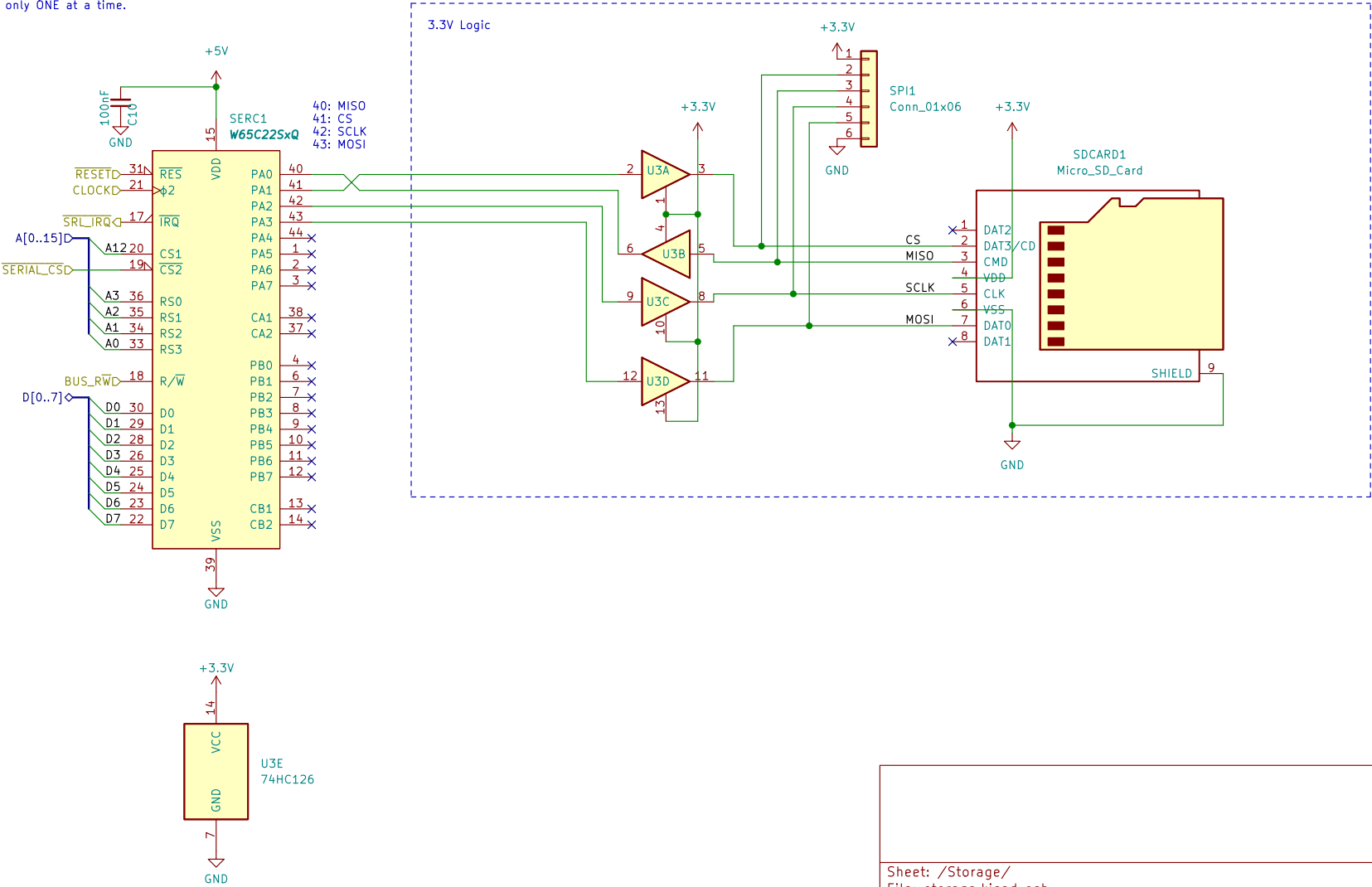
When the VIA's both CS are active and  $\text{BUS\_RW}$  is low, it latches DATA bus onto PORT A. On the next clock edge, controller's WR is set high and it starts transmitting from PORT A to the USB lines. Then WR is set low again.



SPI SD Card Interface

0x5000 - 0x500F

Serial SPI Interface will be used to interact primarily with SD cards. There is also a SPI Header to allow connecting other devices but only ONE at a time.

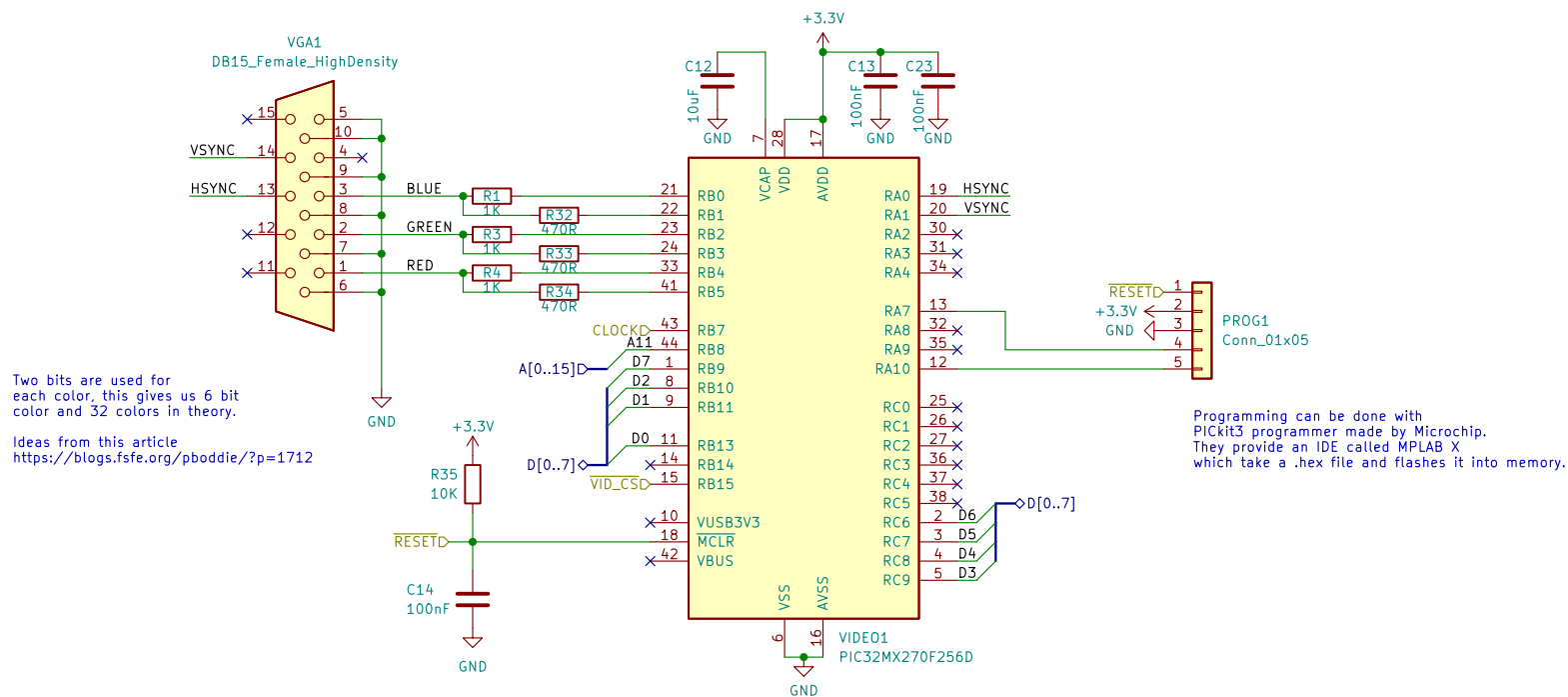


Sheet: /Storage/ File: storage.kicad_sch		
<b>Title:</b>		
Size: A4	Date:	Rev:
KiCad E.D.A. eeschema 6.0.4-1.fc35		Id: 4/7

0x4800 – 0x480F

CPU will send a single byte to the MCU which can be a char code or index of glyph, and the MCU just generates the video signal.

This setup is limited in generating graphics but it avoids having to keep a large framebuffer.

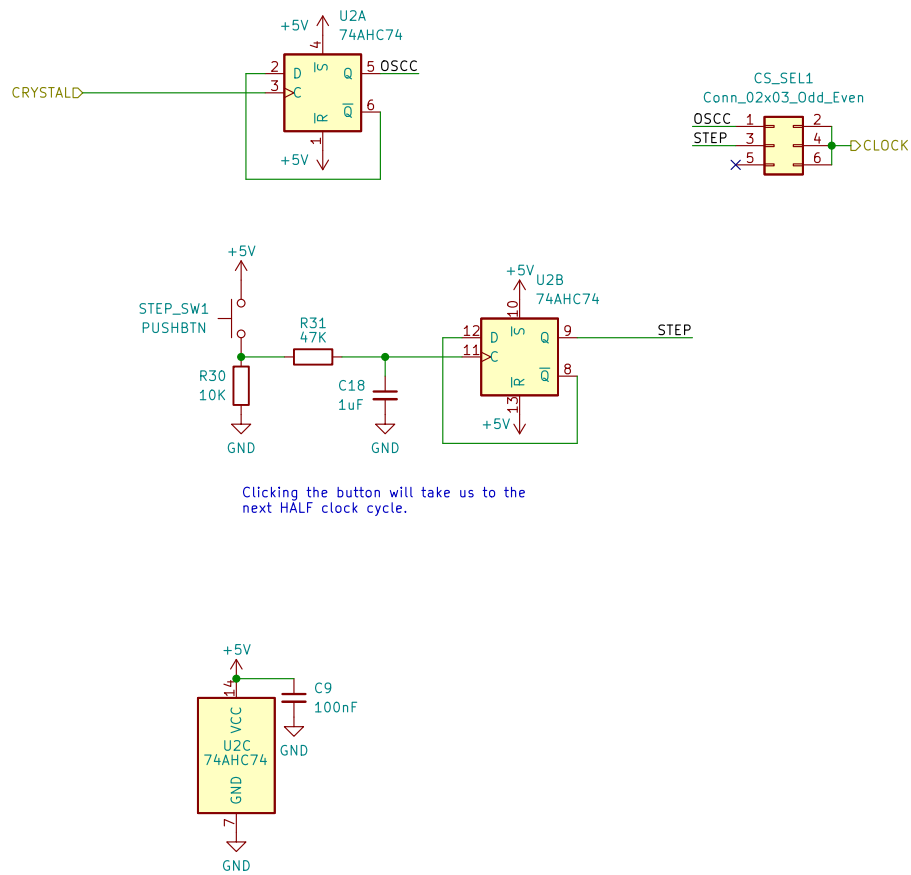


Sheet: /Video/  
File: video.kicad\_sch

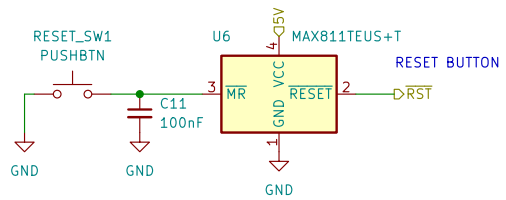
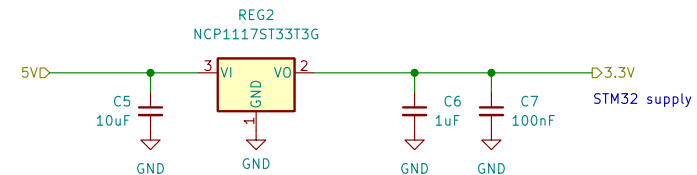
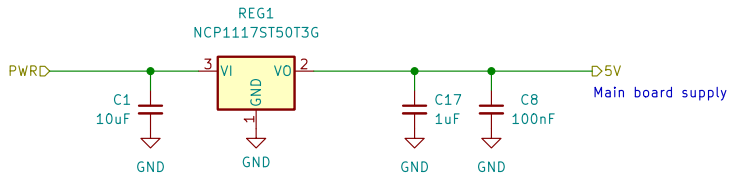
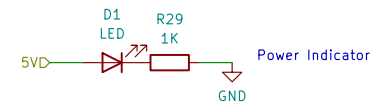
Size: A4	Date:
KiCad E.D.A. eeschema 6.0.4-1.fc35	

Id: 5/7

Clock Source Select



Power Delivery



zrthxn	
Sheet: /Power/	
File: power.kicad_sch	
Title: 8puter	
Size: A4	Date:
KiCad E.D.A. eeschema 6.0.4-1.fc35	
Rev: 1.0	
Id: 7/7	