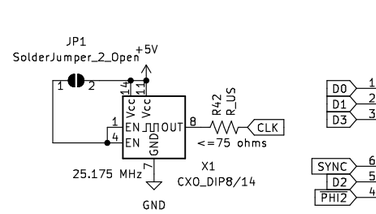
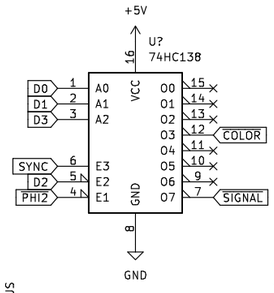
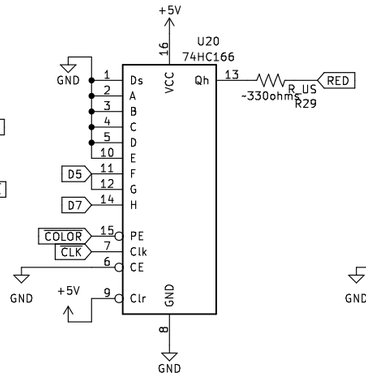
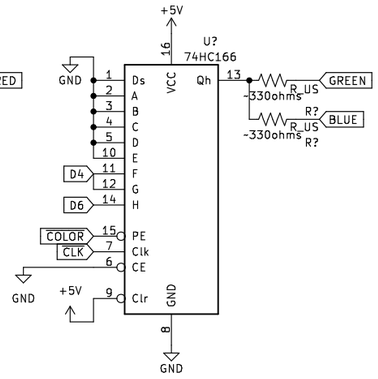
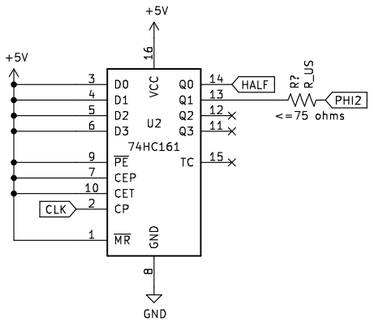
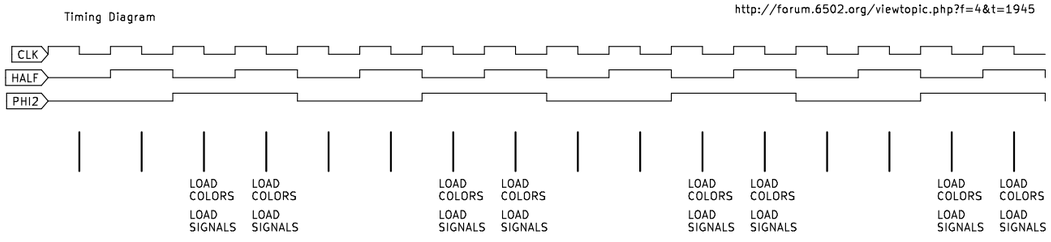


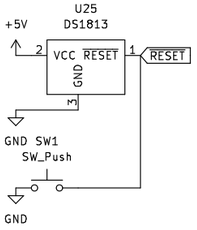


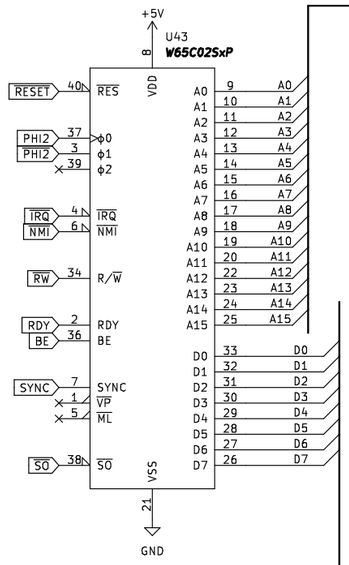


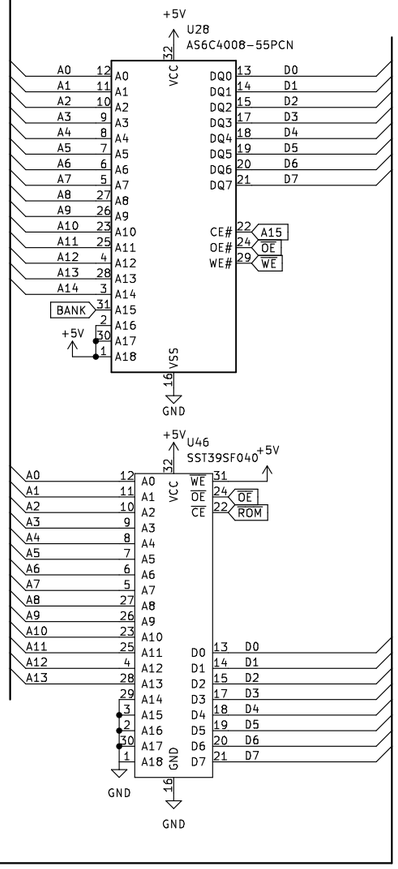


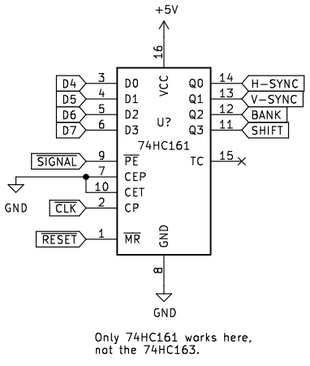












Memory Map:
$0000 – $7FFF = 32K bytes RAM (two banks)
$8000 – $BFFF = 16K bytes unused
$C000 – $FFFF = 16K bytes ROM

Total of 64K RAM and 16K ROM available.
Also, 16K of unused space is available for expansion.

Video Color is generated using the $_3 illegal opcodes.
Video Sync Signals are generated using the $_B illegal opcodes.
6502 will run at 6.29 MHz (1/4th CLK speed),
which is (barely) safe for 70ns FlashROM.

This will give an resolution of 320x480 4-colors,
(black, red, cyan, white),
though in practice due to limited RAM size,
it will probably be 320x240 mono.

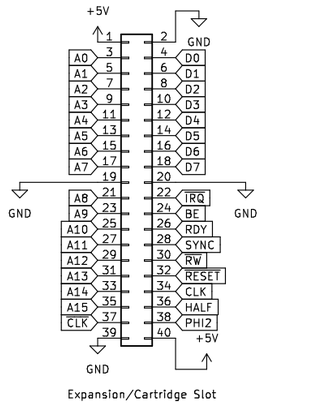
The tactile buttons work with a shift
register, and output on the /SO line.

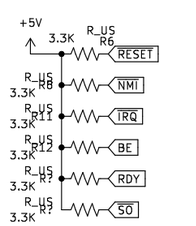
How it all works:

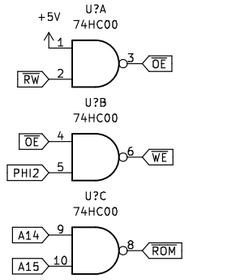
First, the ROM sends to the RAM 160 $_3 instructions, followed
by some interrupt instructions, then the $_B instructions
for H-Sync, and then more interrupt instructions. This will
total 200 clock cycles per horizontal line.

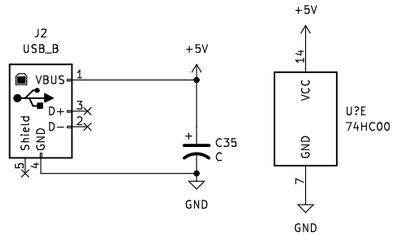
V-Sync signal latches the tactile button data onto the
shift register, SHIFT can be used after the V-Sync period.

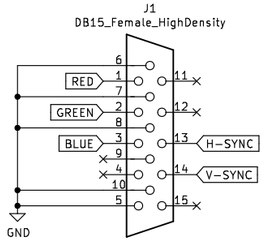
A full 6502 expansion bus is available, mainly for the
inclusion of a VIA or another ROM chip.

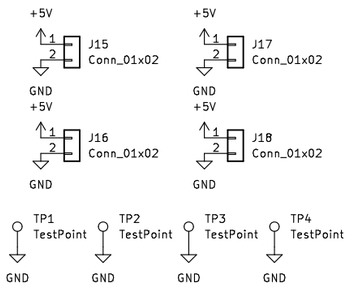


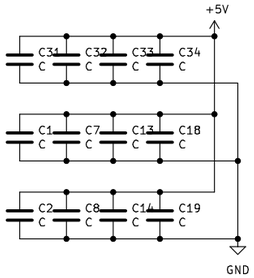


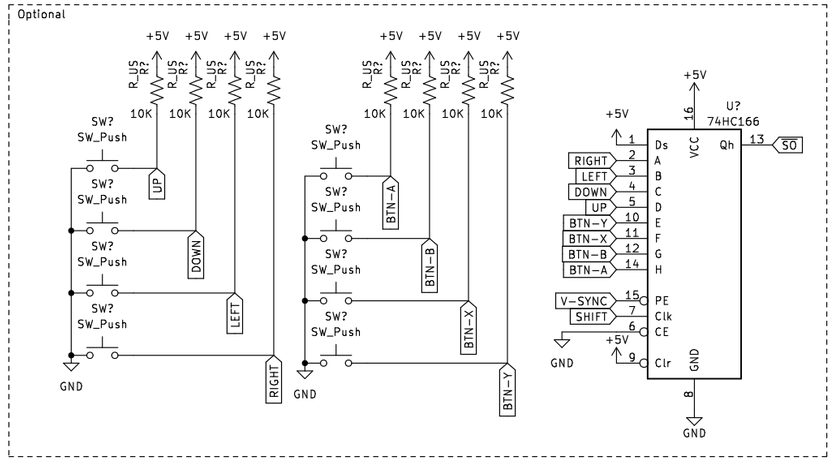












Minimal 6502 Computer
Steven Chad Burrow / 2022