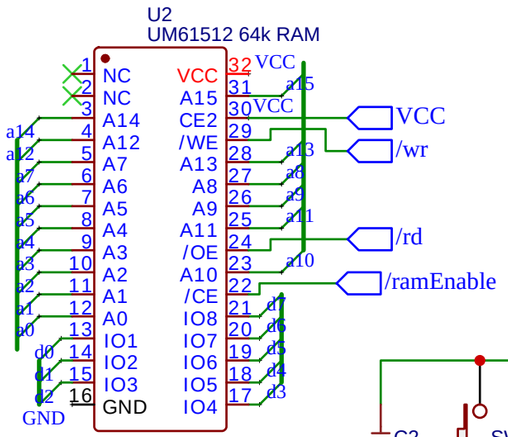
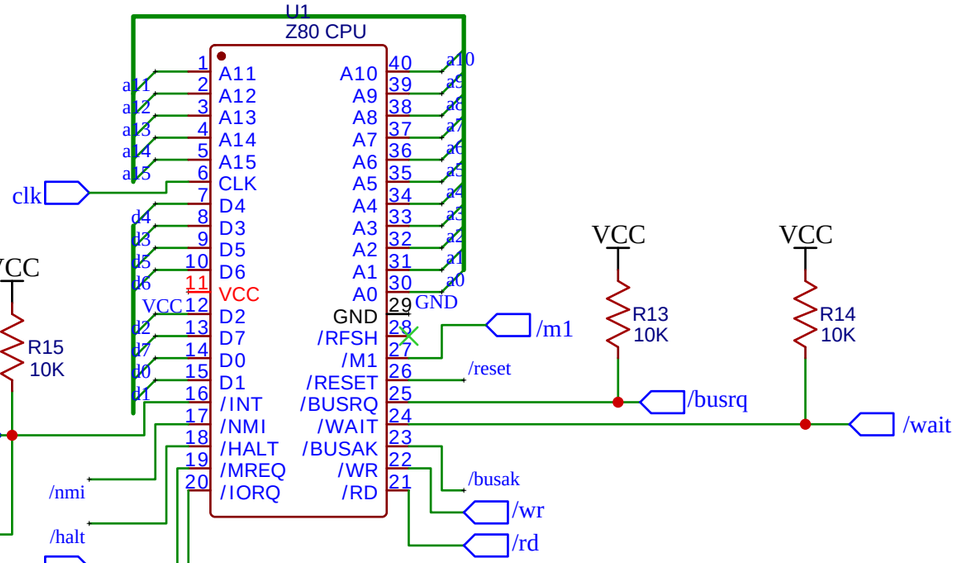
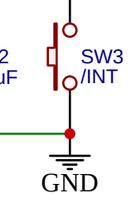
u1 u2 u3 u11

When /romEnable is low we want ROM.

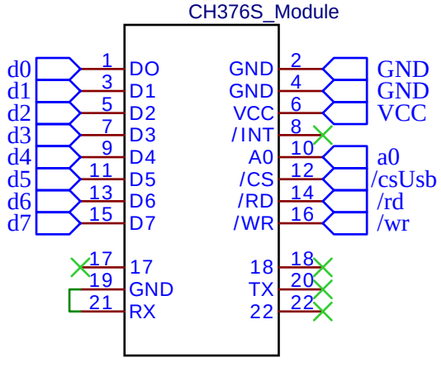
When /ramEnable is low we want RAM.

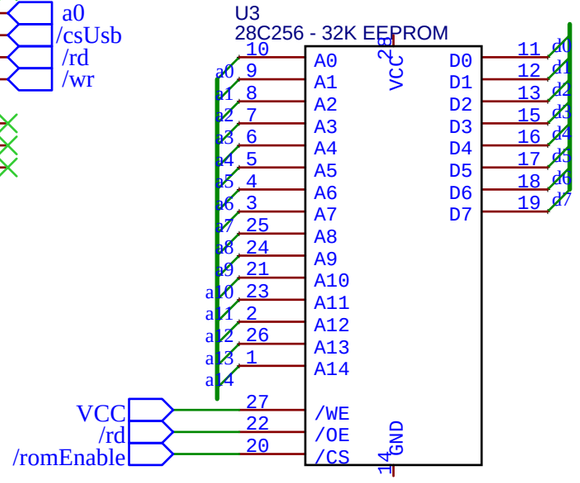


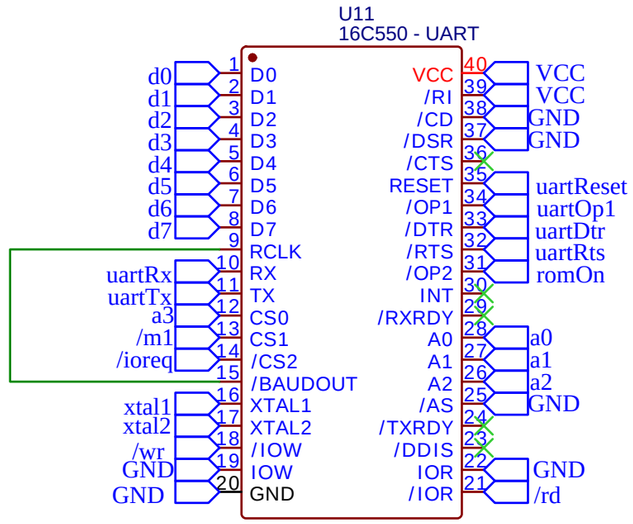




CH376S USB Pen-Drive Module







romON goes high on reset

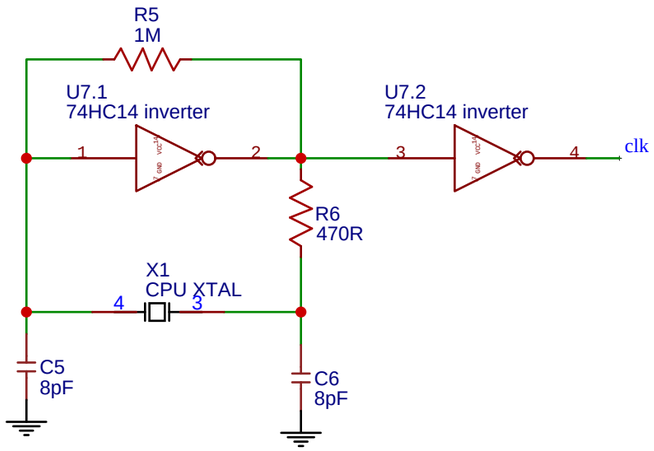
NOTE: Swapped over pins 34 & 31 in v1.2

NOTE: INT & RESET are positive-logic.

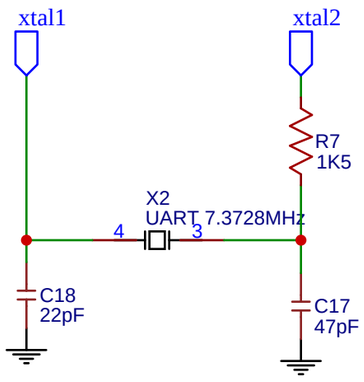
TITLE: Main chips		REV: 1.2
EasyEDA	Company: 8bitstack.co.uk	Sheet: 1/1
	Date: 2020-05-11 Drawn By: johnsquires	

u7 u8.2

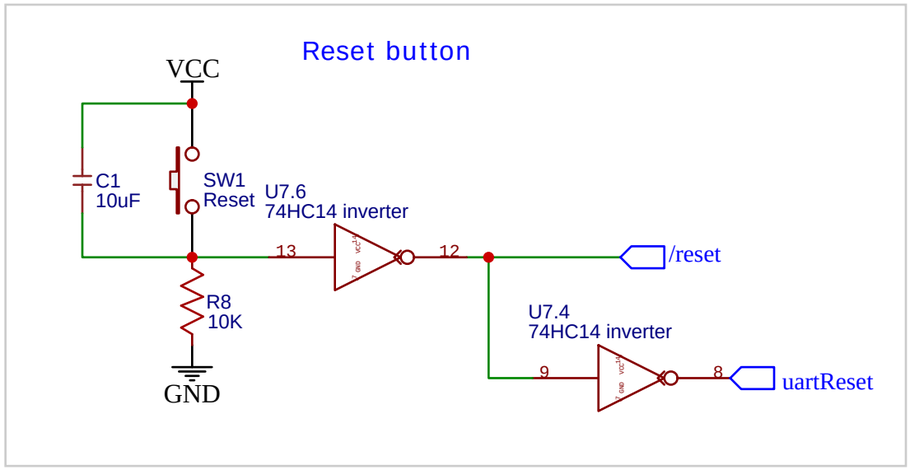
CPU clock - up to 4MHz crystal



UART clock - 7.3728 MHz

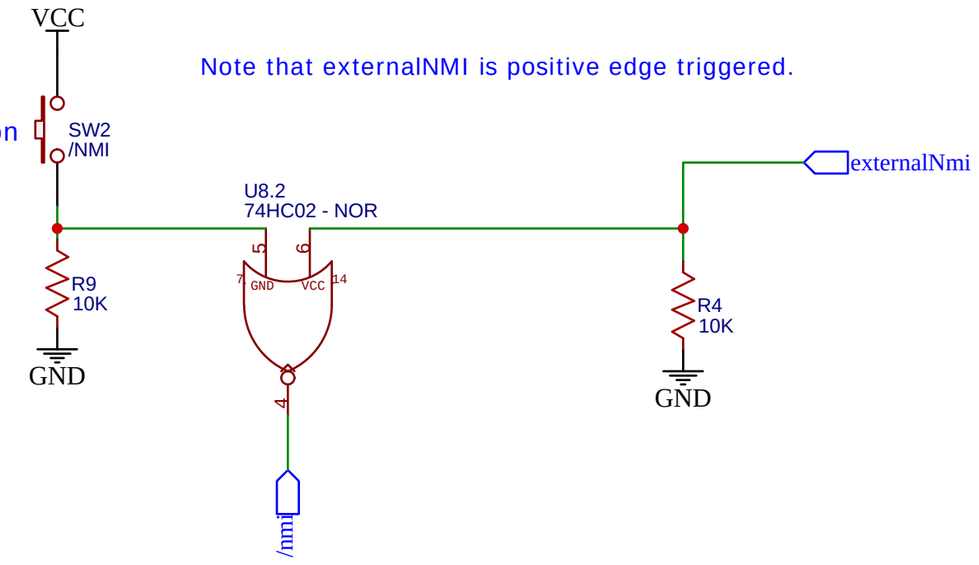


Reset button



NMI button

Note that externalNMI is positive edge triggered.



TITLE: Clock and reset		REV: 1.0
EasyEDA	Company: 8bitstack.co.uk	Sheet: 1/1
	Date: 2020-05-11 Drawn By: johnsquires	

u5 u6

Assuming /MREQ is low, we want ROM when:

(1) A15 is low

(2) A14J is low (this is the jumpered version of a14)

(3) /FFJ is low (this is the jumpered version of the FF)

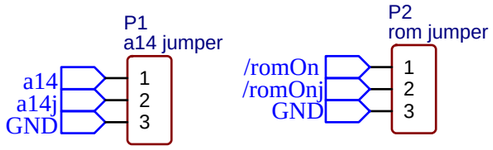
(4) /RD is low

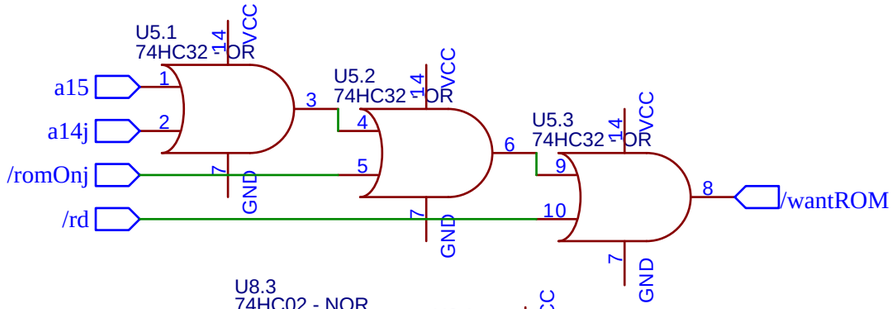
Otherwise we want RAM.

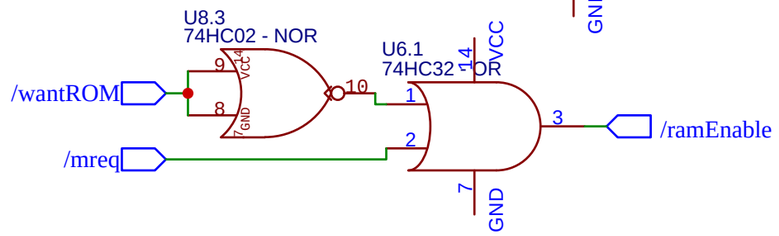
/wantROM = 1 or 2 or 3 or 4

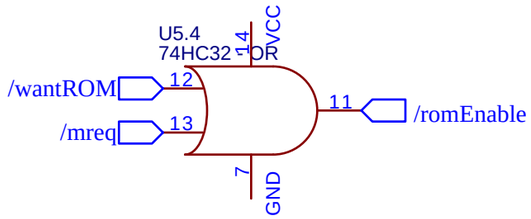
/romEnable = /MREQ or /wantROM

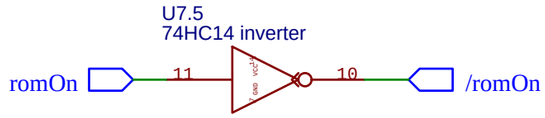
/ramEnable = /MREQ or NOT /wantROM

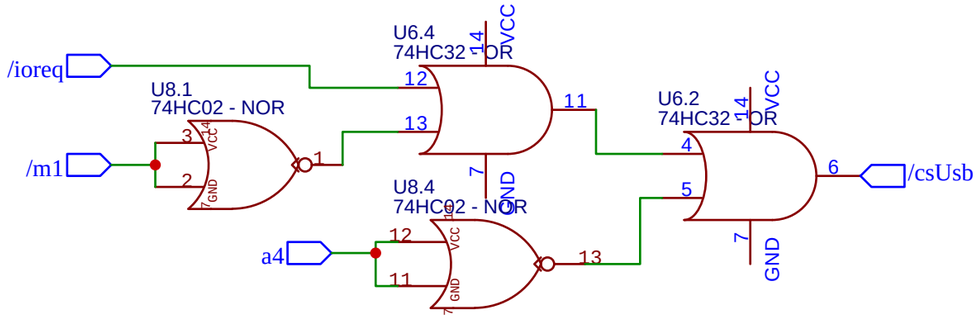


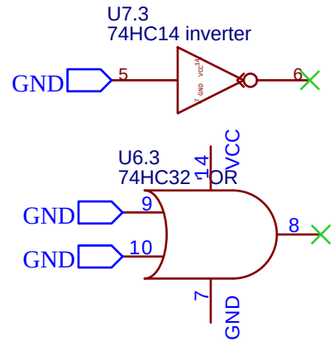












I/O for Serial UART we want:

(1) /IOREQ is low

(2) /M1 is high

(3) a3 is high

(4) a4 is low (or don't care)

base uart port = 00001000 = 8

For I/O for USB Drive we want:

(1) /IOREQ is low

(2) /M1 is high

(3) a3 is low (or don't care)

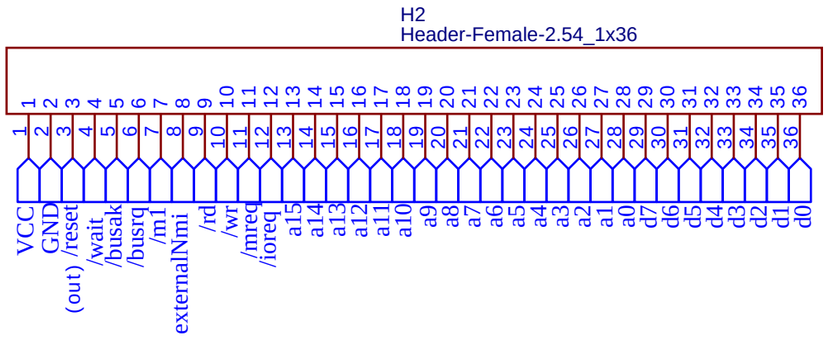
(4) a4 is high

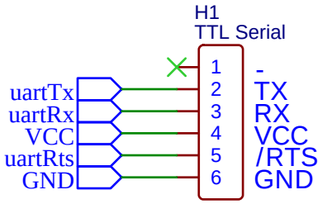
base USB port = 00010000 = 16

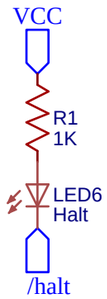
This leaves ports 32, 64 and 128 available for other peripherals.

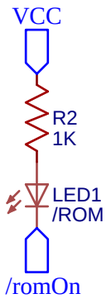
Of course this simplistic scheme means that you could write to multiple ports at the same time, so beware!

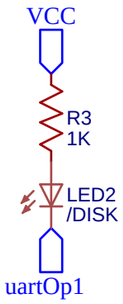
TITLE: ROM / RAM / IO select logic		REV: 1.0
EasyEDA	Company: 8bitstack.co.uk	Sheet: 1/1
	Date: 2020-06-11 Drawn By: johnsquires	

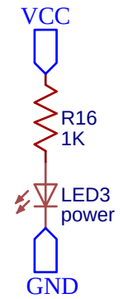


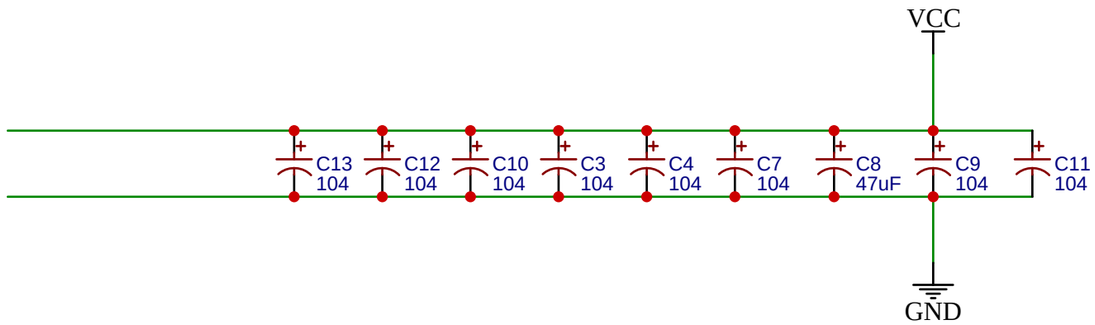












TITLE: Connectors		REV: 1.0
EasyEDA	Company: 8bitstack.co.uk	Sheet: 1/1
	Date: 2020-05-04 Drawn By: johnsquires	