U$11

to screenslave assembly

not using screen busy in this version...
how should I remove it? jumper to make it optional?

+5V   GND   +5V GND

pull the unused parts of this shifter low?

U$12   LEVEL-SHIFTER

HV1 HV2 HV GND2 HV3 HV4

LV1 LV2 LV GND LV3 LV4

3VRAIL GND

to power board

X1-2
X1-1
GND

nano screen assembly

needs level shifter... will only work with 3.3v

usb data is done via an adapter cable because screw soldering to pads

dno't want this to float... use jumper so we don't use it in this prototype!

to neck board...

NECK_HEADER

NECK_BTNS

B_ROW_1 B_ROW_2 B_ROW_3 B_ROW_4

can I use this pin?
arduino forum says Serial.begin dedicates the pins.
I'm not receiving data from the 1053b though...
so it should be fine to init it as an output after the fact?

10k
R13
GND

U$5
TEENSY_LC_ALL_PINS

SCREEN_BUSYLV   0/RX1/T/MOSI1   VUSB
SCREEN_DATALV   1/TX1/T/MISO1   VIN   +5V   3VRAIL
NECK_BTNS   2   3.3V
BODY_BTNS   3/T/PWM
MENU_BTNS   4/T/PWM   GND   GND
QUIK_BTNS   5
ADD_BTNS   6/PWM   PGM
                  7/RX3
VS_MIDI   8/TX3   AREF
B_ROW_1   9/RX2/PWM
B_ROW_2   10/TX2/PWM
B_ROW_3   11/MOSI
B_ROW_4   12/MISO   A11
VOL_RD   13/SCK/LED   A10
A_IN2   14/A0
A_IN3   15/A1/T
A_IN4   16/A2/PWM/T
A_WHAM   17/A3/PWM/T   17_AT_VIN
ANALOG_ACTIVE   18/A4/T/SDA
VS_RST   19/A5/T/SCL
                  20/A6/PWM/SCK1   26/A12/DAC
                  21/A7
                  22/A8/T/PWM/SCL1
                  23/A9/T/PWM/SDA1

switch to 19 I guess. Just in case!
not using this i2c in this version...

make sure to use a 4 pin too...

over 3.3v on the digital pins can fry teensy lc...

to audio board...
U$13

+5V   GND VS_MIDP VS_RSTP

to midi transmitter...
U$14

+5V   GND VS_MIDI

trigger this with a voltage when you measure? saves power...
pick a pin I guess...

to matrix board...
U$10

BODY_BTNS MENU_BTNS QUIK_BTNS ADD_BTNS B_ROW_1 B_ROW_2 B_ROW_3 B_ROW_4

cutting out teensy i2c for now,
re-add later when you have more time
when re-adding, use 4.7k pull-ups, and run through the level shifter to use its extra ports
it's on the same side anyway

TO DO: indicators, power in, decoupling
make 4 pin header for i2c, onboard level shifter?
amp on board?
level shifter for indicators too? just to be safe? hmm
at that point i might as well onboard the nano's shifter and only use a 4 pin over there as well

HCT version of the shift register will take 3.3v fine, HC version will not and will require a level shifter

shift on board or on other side? on board will require fewer wires, and i'm not really doing much here anyway...

on board for indicators and i2c, offboard for nano/screen

make single board for all digital body inputs, 8 pins

16 buttons -
4 body
4 quick
4 menu
4 additional (2 used)

audio header board? need a 7 pin connector...
yeah, let's have an analog board. we can add it on later!

U$8

ANALOG_ACTIVE VOL_RD A_IN2 A_IN3 A_IN4 A_WHAM
GND

output to "analog" board? easy enough to make, but do I have the area to mount it? Simplifies connections...