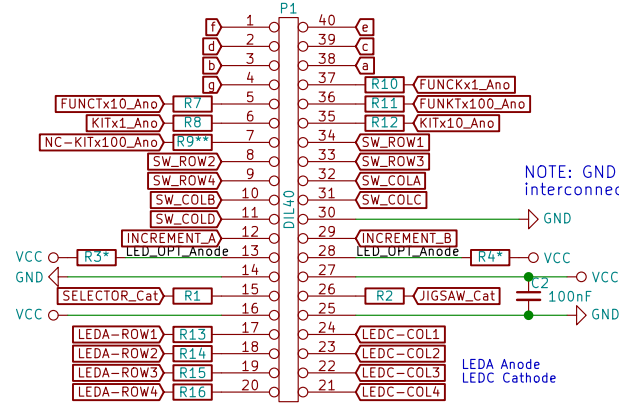


5Volt use 220R resistors
3.3Volt use 47R resistors

For optional second μ C to handle internal MIDI triggers

PROGRAMMER CONNECTOR



NOTE: GND and VCC pins are not interconnected on programmer board

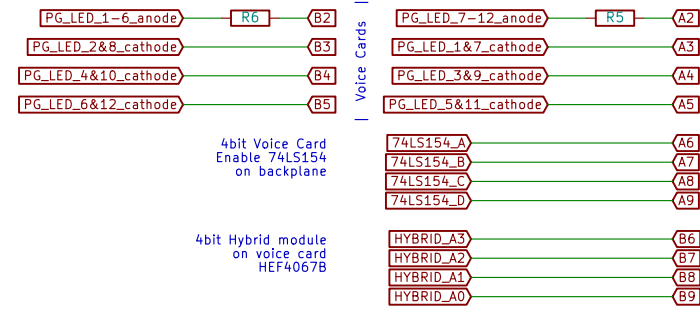
Pin-Headers: Pin_Header_Straight_2x20_Pitch2.54mm

* R3 and R4 only needed for infrared LED's with optical flywheel

**R9 FREE PIN - Pin7 where meant for segment kit x100 which is not installed

All resistors 220R with 5V calculate to 14mA if LED has 2V forward bias voltage
With 3.3V 100R resistor will give aprox 14mA forward current

LED count
sourcing 11: 5 seg + 4 matrix + 2 vcsel
sinking 19: 7 seg + 2 jigsel + 4 matrix + 6 vcsel



4bit Voice Card
Enable 74LS154
on backplane

4bit Hybrid module
on voice card
HEF4067B

To pin10 non-inverting input
on IC4 TL084 on backplane
configured as voltage follower

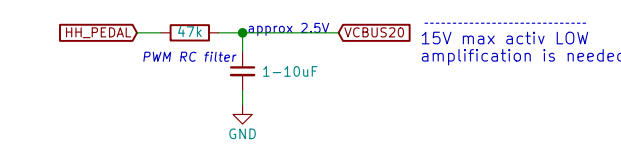
DZ1-DZ8 and R50-R53
are optional voltage
and current protection

Zener Diodes
VCC=3.3V NZX3V3A
VCC=5V NZX4V7D
or NZX5V1A

Selector Pad connector is a
simple voltage loop for a
4x4 switch array. Protection
other than a resistor in series
are normally not needed.

If someone plan to tinker
with atvics electrons on
this port better protection
is recomanded.

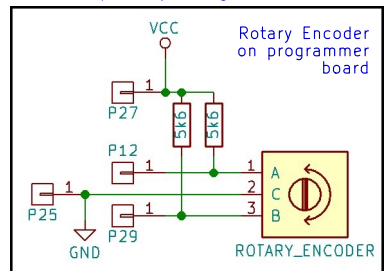
Hi-Hat pedal max 15V
CV signal to voice card
Use PWM to simulate
slow pedal movment



LED marked L must be removed
with current diagram and code

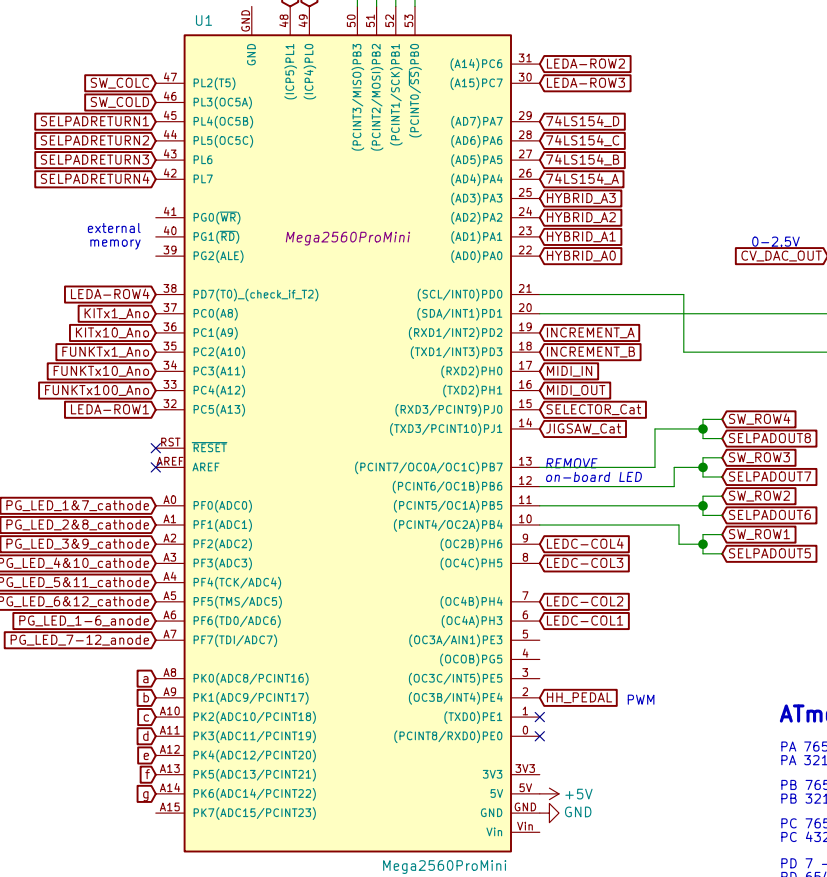
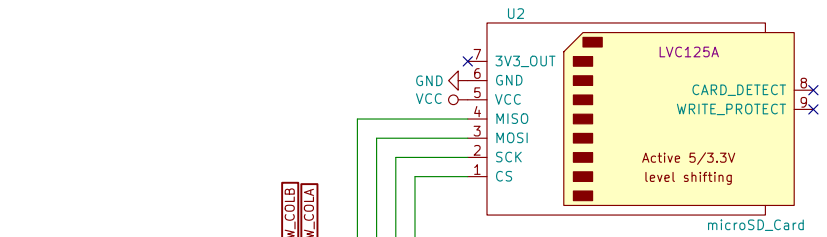
A--- and B--- ARE WITH REFERENCE TO CPU EDGE CONNECTOR

Encoder polarety changed from rev 0.12



Rotary Encoder
on programmer
board

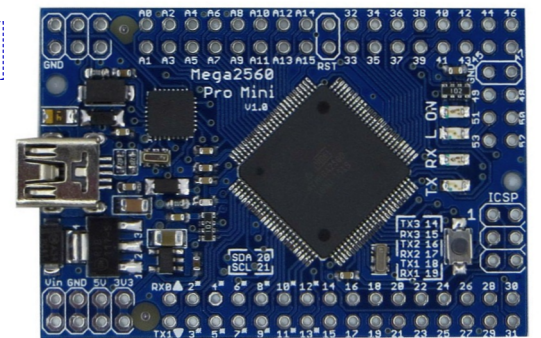
SEL PAD CON
8-400R 5V-1V
2-220R 5V
10-100R 5V
Ribbon Cable



Atmega 2560 Ports

- PA 7654 - Voice Card address select
- PA 3210 - Hybrid Parameter Select
- PB 7654 - Switch Matrix Out
- PB 3210 - SD Card
- PC 765 - LEDA-ROW1,2,3
- PC 43210 - 7 segment Anode - ONLY SINGLE PIN HIGH
- PD 7 - LEDA-ROW4
- PD 654 - Not Enabled
- PD 32 - Increment Wheel
- PD 10 - DAC
- PE 762 - Not Enabled
- PE 53 - NC
- PE 4 - PWM HH Pedal
- PE 10 - USB
- PF 76 - Anode Voice Card LED
- PF 543210 - Cathode Voice Card LED
- PG 5210 - NC for external memory
- PG 43 - Not Enabled 6bit pot
- PH 7 - Not Enabled
- PH 6543 - Cathode LED 4x4 Matrix
- PH 10 - MIDI
- PJ 765432 - Not Enabled
- PJ 10 - JIG/SEL Cathode
- PK 7 - NC analog input
- PK 6543210 - 7 segment a-g
- PL 76543210 - Switch Matrix Return

Be careful programming Not Enabled pins as
they can have internal functions for the 2560



Panel connector based on Simmons SDS7 programmer board 2/84
Proto are made with Mega2560 Pro Mini rev.1.1

Open Source Hardware - StillNotWorking <http://snw.lonningdal.no>

Sheet: /
File: sds7mrkII_mega2560PM_mc.sch

Title: Simmons SDS7 mrk II - Mega2560PM Main Board

Size: A3 Date: 2018-03-30 Rev: 0.12
KiCad E.D.A. kicad 4.0.7 Id: 1/1