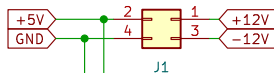


Supply power through J1. Only the +5V rail is used. The board connects at the bottom side of the 8-bit Workbench or extension boards.

The +5V rail can also be used at 3.3V (for LVTTTL or LVCMOS experiments).

Top Left
Power In



Invert Bits (SW3) set to normal:
SW1–SW2 outputs give +5V.

SW3 in the the ones' complement
setting inverts (flips) all bits:
SW1–SW2 outputs are tied to
GND.

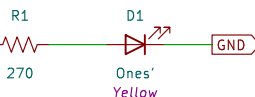
SW3A
Invert Bits
ones' complement
normal



Attach a logic probe using
connector J3. Measure the
pads J5–J12 to double
check the data outputs, or
reach over to the attached
Super Breadboard.

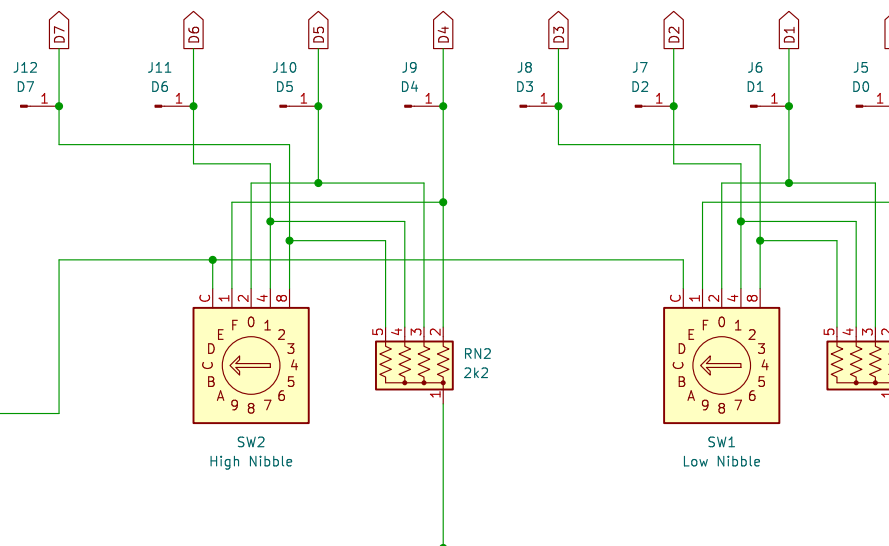
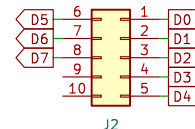
Logic Probe Support

J4 1
Ones' Complement Active



A yellow LED indicates when
the ones' complement is
selected using SW3.

Top Right
Data Out



RN1 and RN2 function
as pull-down and
pull-up resistors
depending on the
setting of SW3.

Turn-in a hexadecimal code (0–F), both for the high- and low-nibble. The output, being the full byte (8-bits), can then be used with attached experiments.

Flip the bits in an instance using a switch. This creates the ones' complement of the hex value that is set. Extends the 8-bit Workbench or Super Breadboard.

8BitFlux.com / Bobby Nijssen

Sheet: /

File: BinaryKeyboardExtension.kicad_sch

Title: Hex Keyboard

Size: A4

Date: 2026-01-23

KiCad E.D.A. 9.0.5

Rev: 1

Id: 1/1