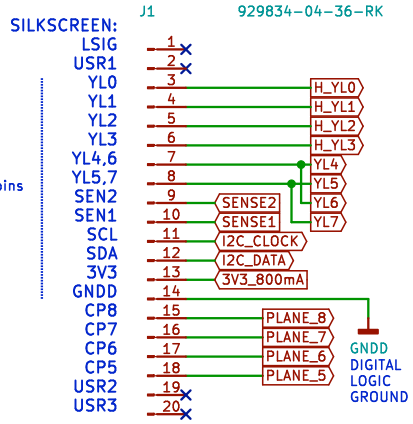
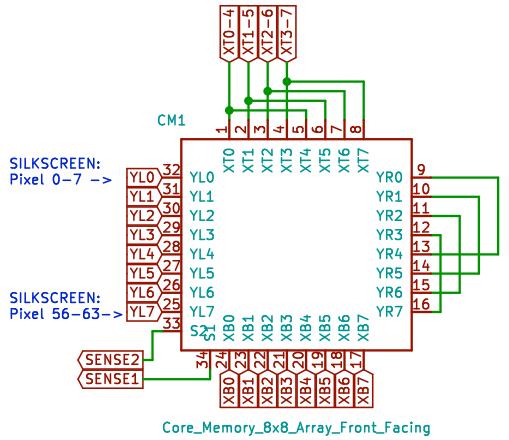
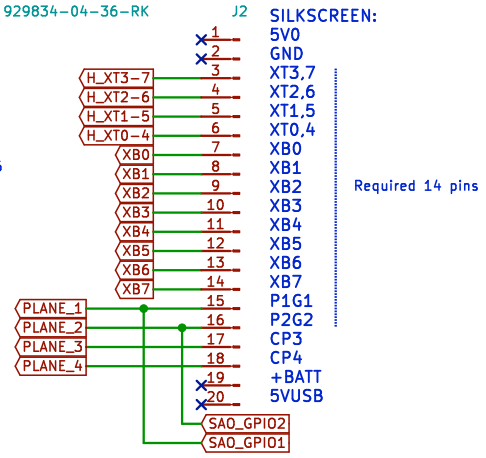
CORE MATRIX

Cut header 36-pin into two 16-pin headers, install centered with two pins on each end not inserted.

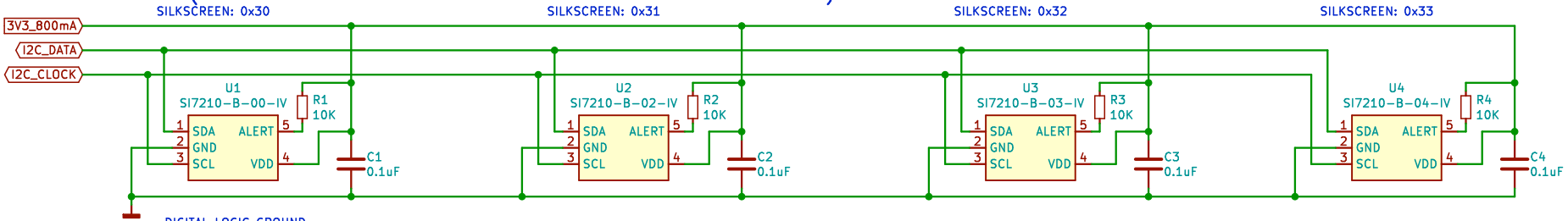
Required 12 pins





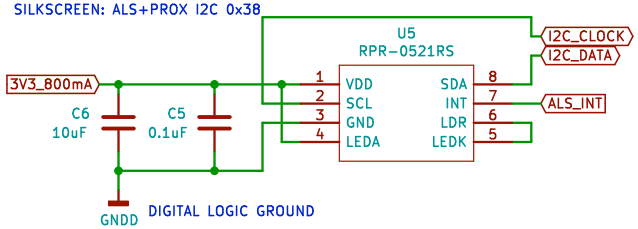


HALL SENSORS (SEE SECOND SHEET FOR HALL SWITCH ALTERNATES)



I2C configurable hall sensors for field strength measurement. Not a simple on/off switch.
Silicon Labs SI7210-B-xx-IV (00, 02, 03, 04)
Low (push-pull) up to 20 mT, SOT23-5
Recommended sensitivity ± (N and S) 3-7 mT (30-70 Gauss)

AMBIENT LIGHT SENSOR I2C 0x29 or 0x38 (SEE SECOND SHEET FOR ALTERNATIVES)



REQUIRED: CONFIGURATION FOR SINGLE CORE PLANE

STEP 1: Solder eight SJs JP9 through JP16.

STEP 2: Do NOT solder any JPs JP1 through JP8.

STEP 3: No additional components needed.

STEP 4: See instructions on Logic Board, if any.

Sheet: Core64 CB v1.0 Optional

File: Core64 CB v1.0 Optional.sch

All capacitors ceramic X7R unless otherwise noted.
Production Release

Visit www.Core64.io for information on assembly and optional features.

Concept and design by Andy Geppert @ www.MachineIdeas.com

Sheet: /
File: Core64 CB v1.0.sch

Title: Core64 CB (Core Board)

Size: A	Date: 2022-06-02	**Rev: 1.0**
KiCad E.D.A. kicad (5.1.2-1)-1		Id: 1/2

SILKSCREEN MISC.

CORE BOARD | PCB P/N | VERSION (REL. DATE) | PCBA P/N
ANDY GEPPERT
www.MachineIdeas.com
Interactive Core Memory
www.Core64.io

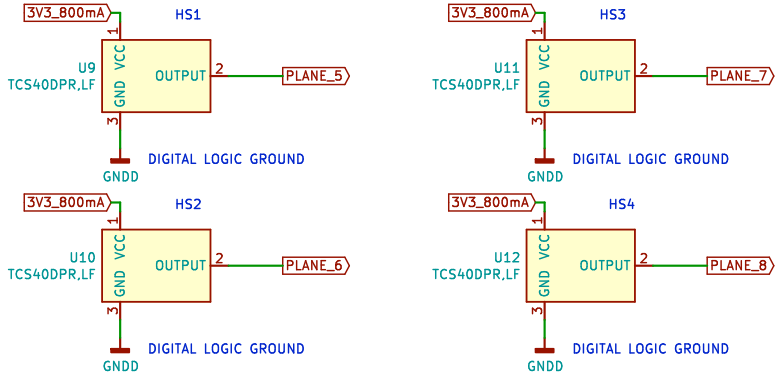
SILKSCREEN GRAPHICS

L1
Core_64_Logo_9mm_tall

L2
Core_64_M-+S_Buttons_4mm

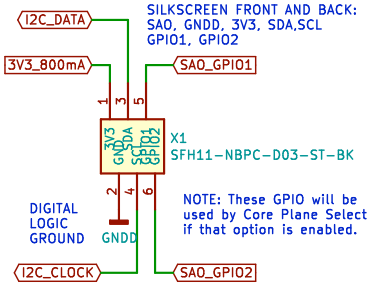
[ALTERNATE] HALL SWITCH ALTERNATES

If Hall Switches are inserted, keep the decoupling caps on the first sheet.
If Hall Switches are used, they default to being connected to Plane5-8 wiring, without requiring any Solder Jumpers to be soldered.
Recommended sensitivity ± (N and S) 3-7 mT (30-70 Gauss)
(Toshiba TCS40DPR,LF is 4.4mT.)



[OPTIONAL] SAO #2 EXPANSION

SIMPLE ADD ONS see:
https://hackaday.io/project/175182-simple-add-ons-sao



[OPTIONAL] MULTI CORE PLANE SELECT

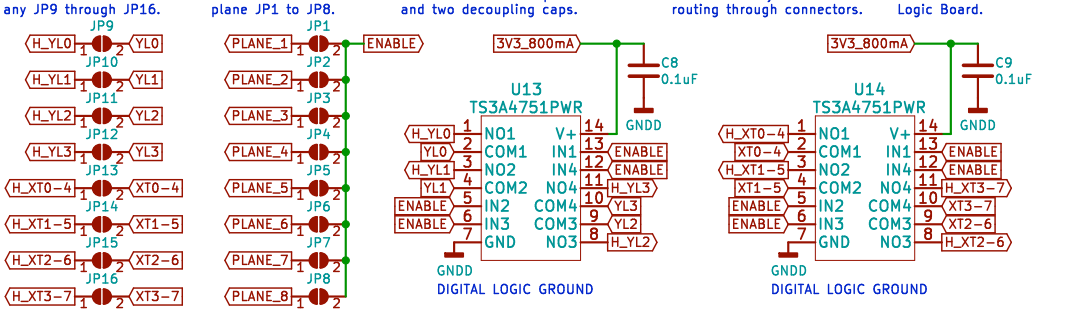
STEP 1: Do NOT solder any JP9 through JP16.

STEP 2: Solder ONE plane JP1 to JP8.

STEP 3: Install two quad switches and two decoupling caps.

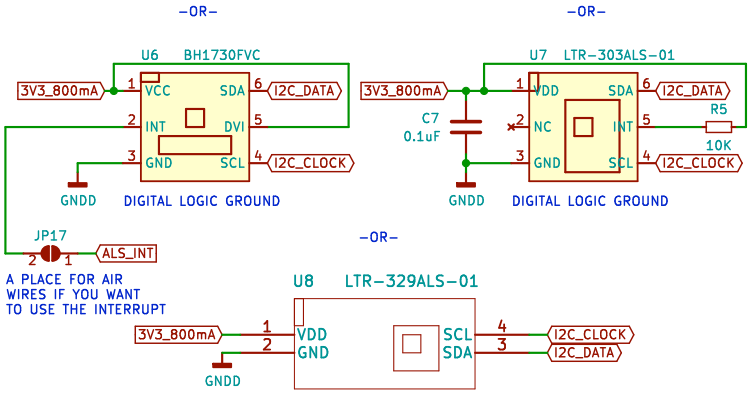
STEP 4: Modify sense wire routing through connectors.

STEP 5 (LOGIC BOARD): See instructions on Logic Board.



[ALTERNATE] AMBIENT LIGHT SENSORS I2C 0x29

SILKSCREEN: ALS I2C 0x29



All capacitors ceramic X7R unless otherwise noted.
Production Release

Visit www.Core64.io for information on assembly and optional features.
Concept and design by Andy Geppert ● www.MachineIdeas.com

Sheet: /Core64 CB v1.0 Optional/
File: Core64 CB v1.0 Optional.sch

Title: Core64 CB (Core Board)

Size: A4	Date: 2022-06-02	**Rev: 1.0**
KiCad E.D.A. kicad (5.1.2-1)-1		Id: 2/2