HMI

SCL
SDA
ENC_SW
ENC_A
ENC_B
SHIFTREG_RST
SHIFTREG_CS
SPI_CLK
SPI_MISO
SPI_MOSI

File: HMI.kicad_sch

Sensors & actuators

LED_NEOPIXEL
SERVO_PWM
ADC_OUT
WRITE_PROT
EEPROM_CS
SPI_CLK
SPI_MISO
SPI_MOSI

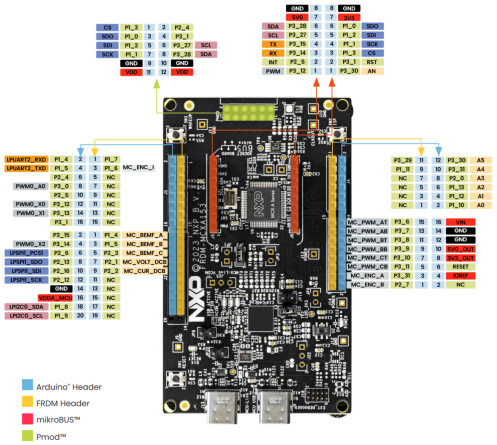
File: Sensors_and_actuators.kicad_sch

Debug

SDA
SCL
LED_NEOPIXEL
SERVO_PWM
ADC_OUT
WRITE_PROT
SHIFTREG_RST
EEPROM_CS
SHIFTREG_CS
SPI_MISO
SPI_MOSI
SPI_CLK
ENC_SW
ENC_A
ENC_B

File: Debug.kicad_sch

Quick Start Guide FRDM-MCXA153



3

Hat pinout

J1 Conn_02x08_Odd_Even
ENC_SW
WRITE_PROT
SERVO_PWM
SHIFTREG_RST

J2 Conn_02x06_Odd_Even
ADC_OUT

J3 Conn_02x10_Odd_Even
SHIFTREG_CS
SPI_MOSI
SPI_MISO
SPI_CLK
SDA
SCL
GND

J4 Conn_02x08_Odd_Even
LED_NEOPIXEL
GND
+5V
+3.3V
EEPROM_CS
ENC_A
ENC_B

Symbols

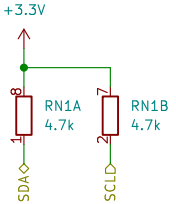
REF2
REF3

Changes V2.0:
- Changed pinout.
- Changed SN74LV164ADR (shftreg) for two 74HC595's.

- Removed extra I2C debug header.
- Removed FXLS8974CF.
- Removed buttons.
- Removed GPS/BT header.
- Removed RGB-led.
- Removed Potentiometer.

- Added debug pins.
- Added test hooks.
- Added ESD protection diodes.

I2C pullups



Mounting holes screen bracket, M2.2

H1 MountingHole
H2 MountingHole

Authors: Thomas Ijseldijk, Hugo Arends & Emiel Visser
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Sheet: /
File: FRDM-MCXx_Shield.kicad_sch

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Size: A4	Date: 2024-04-28	**Rev: V2.0**
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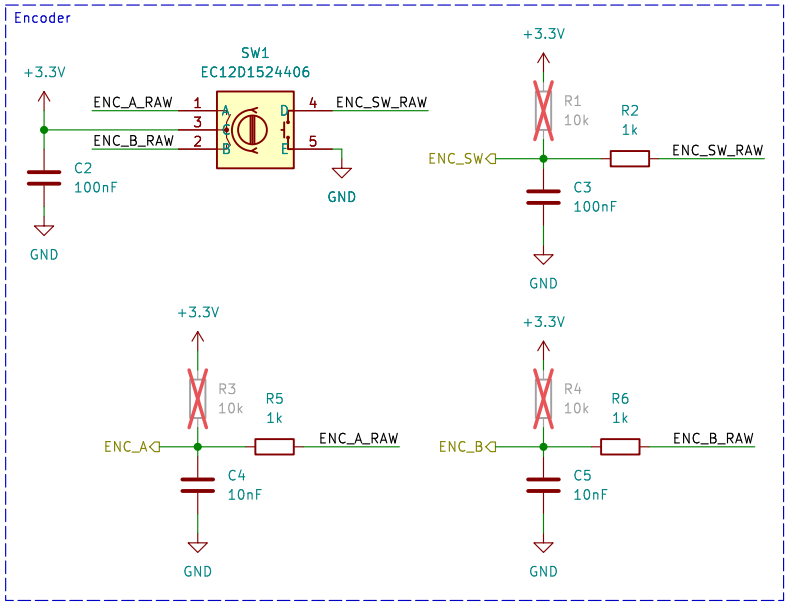

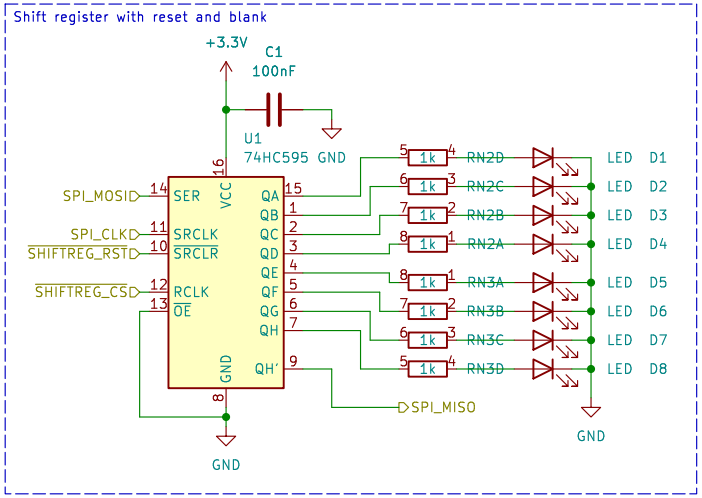

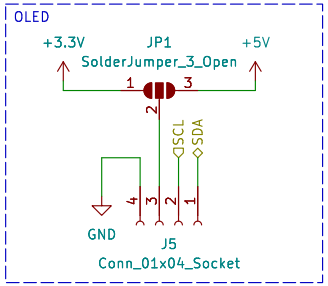

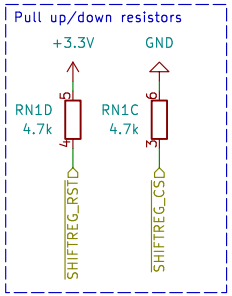

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Sheet: /HMI/
File: HMI.kicad_sch

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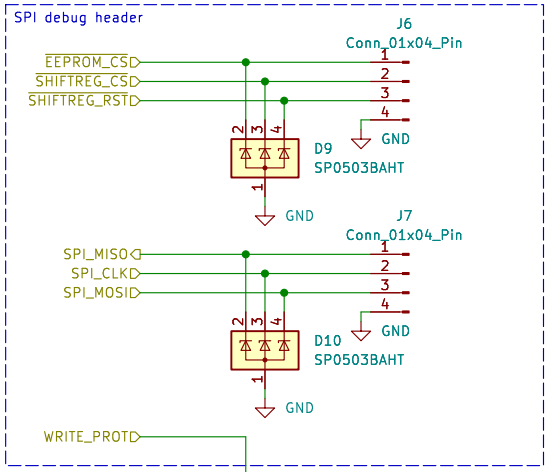

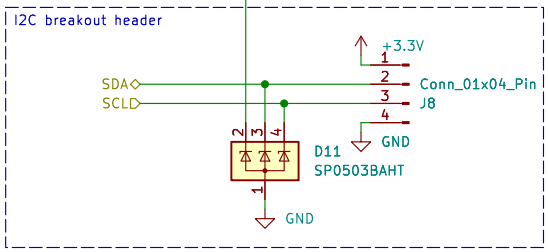

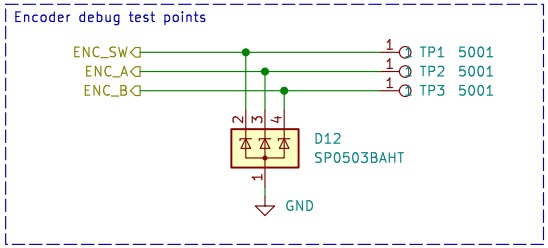

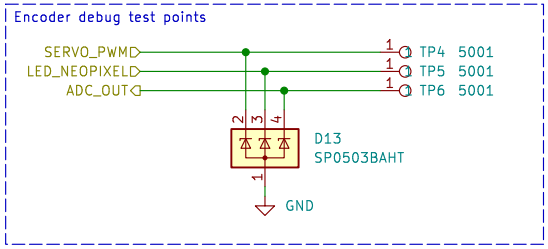

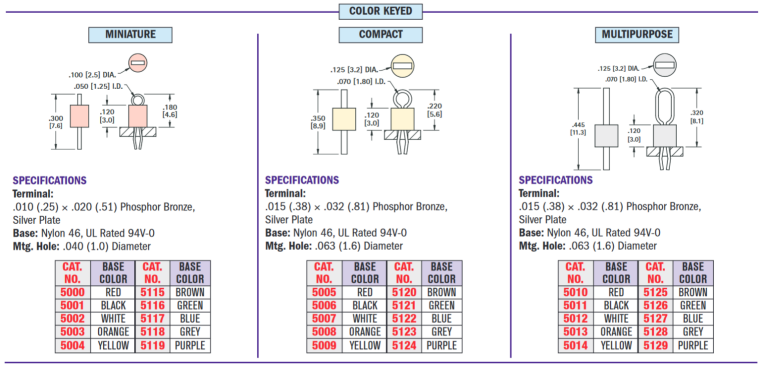

Authors: Thomas Ijseldijk, Hugo Arends & Emiel Visser
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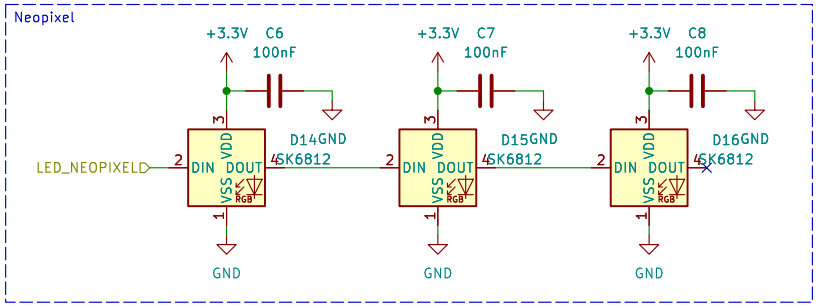
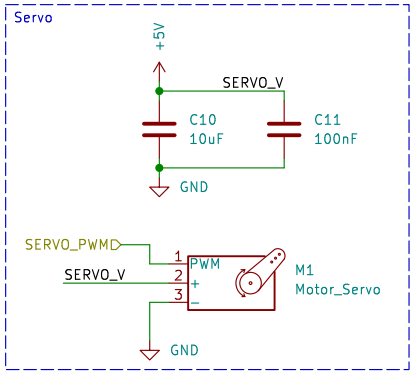
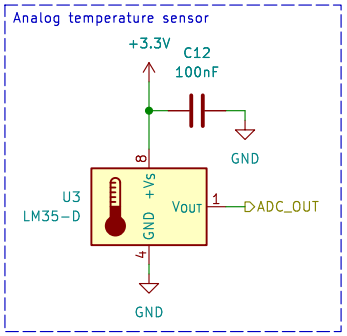
Sheet: /Debug/
File: Debug.kicad_sch

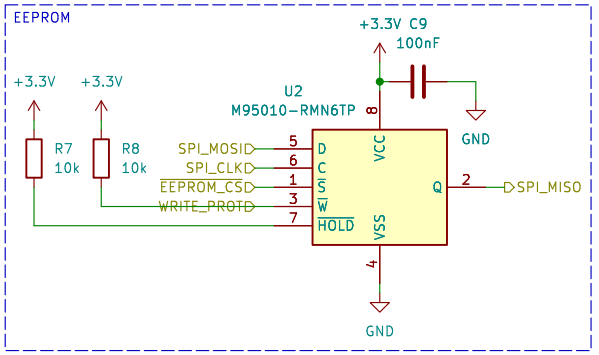
Title: Debug

Size: A4	Date: 2024-04-27	**Rev: V2.0**
KiCad E.D.A. 8.0.1		Id: 3/4









Authors: Thomas Ijseldijk, Hugo Arends & Emiel Visser

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Sheet: /Sensors & actuators/

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Title: Sensors & actuators

Size: A4	Date: 2024-04-26	**Rev: V2.0**
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