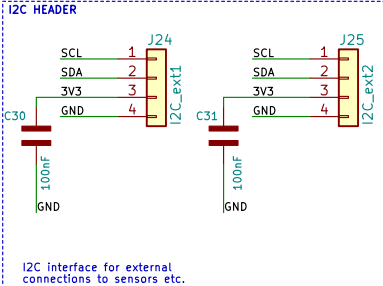
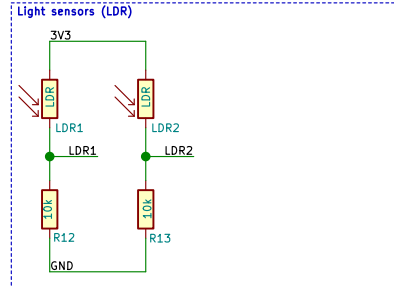
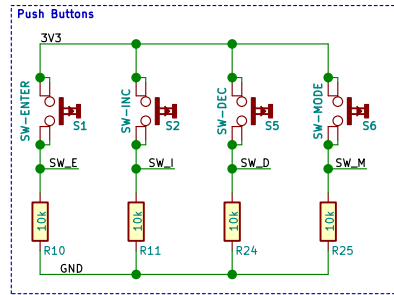




SPI header with breakout pins.
Connect with wire to appropriate pins on ESP32

Native SPI pins are (clk, mosi, miso, cs):
SPI1: 6, 8, 7, 11
HSPI: 14, 13, 12, 15
VSPI: 18, 23, 19, 5
If using native pins max SPI clock can be set to 80 MHz.
Only HSPI & VSPI are supported by esp-idf driver.



I2C interface for external connections to sensors etc.



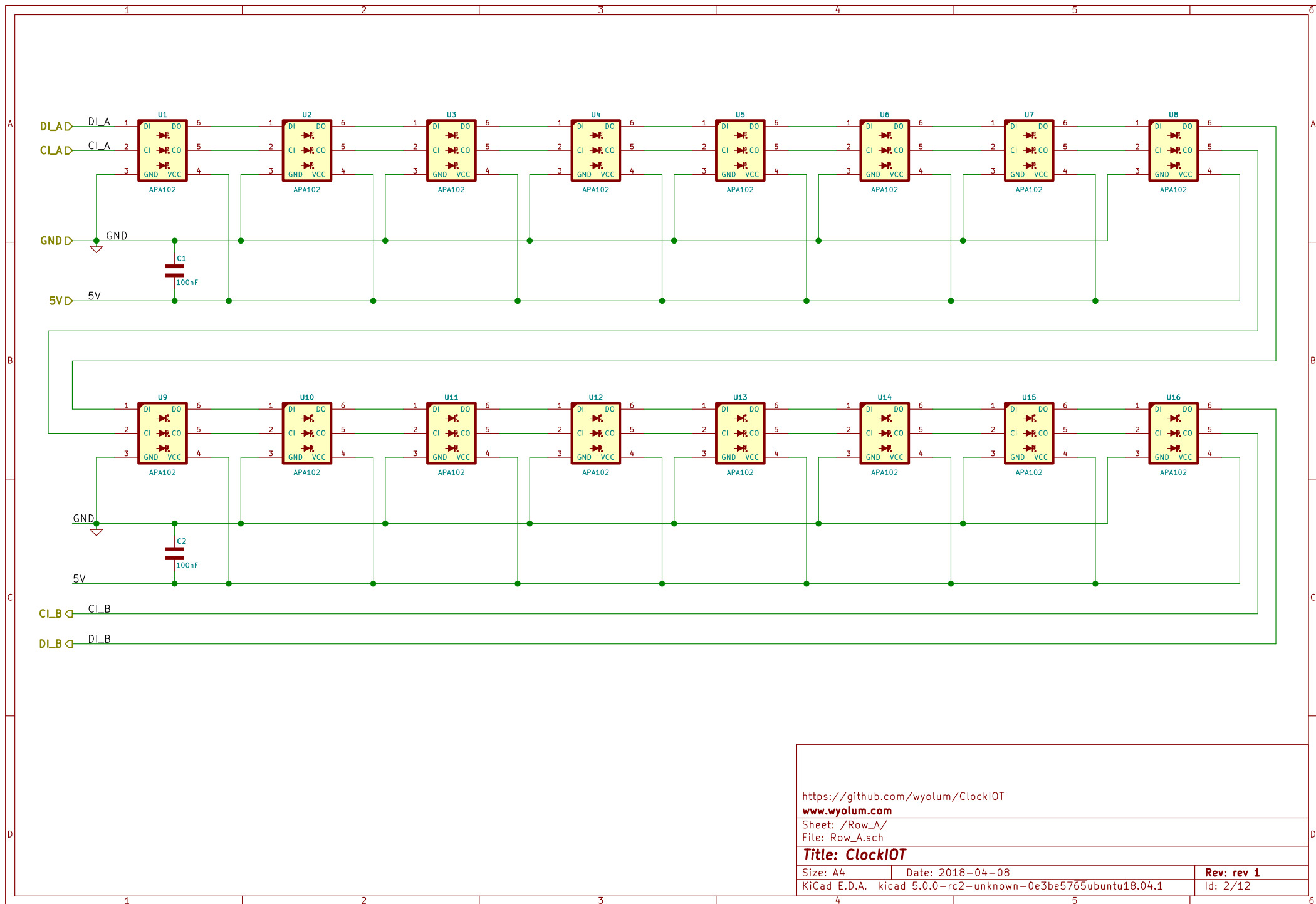


https://github.com/wyolum/ClockIoT
www.wyolum.com

Sheet: /
File: ClockIoT.sch

Title: ClockIoT

Size: A4	Date: 2018-06-10	Rev: rev 2
KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1		Id: 1/12



<https://github.com/wyolum/ClockIOT>

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Sheet: /Row_A/

File: Row_A.sch

Title: ClockIOT

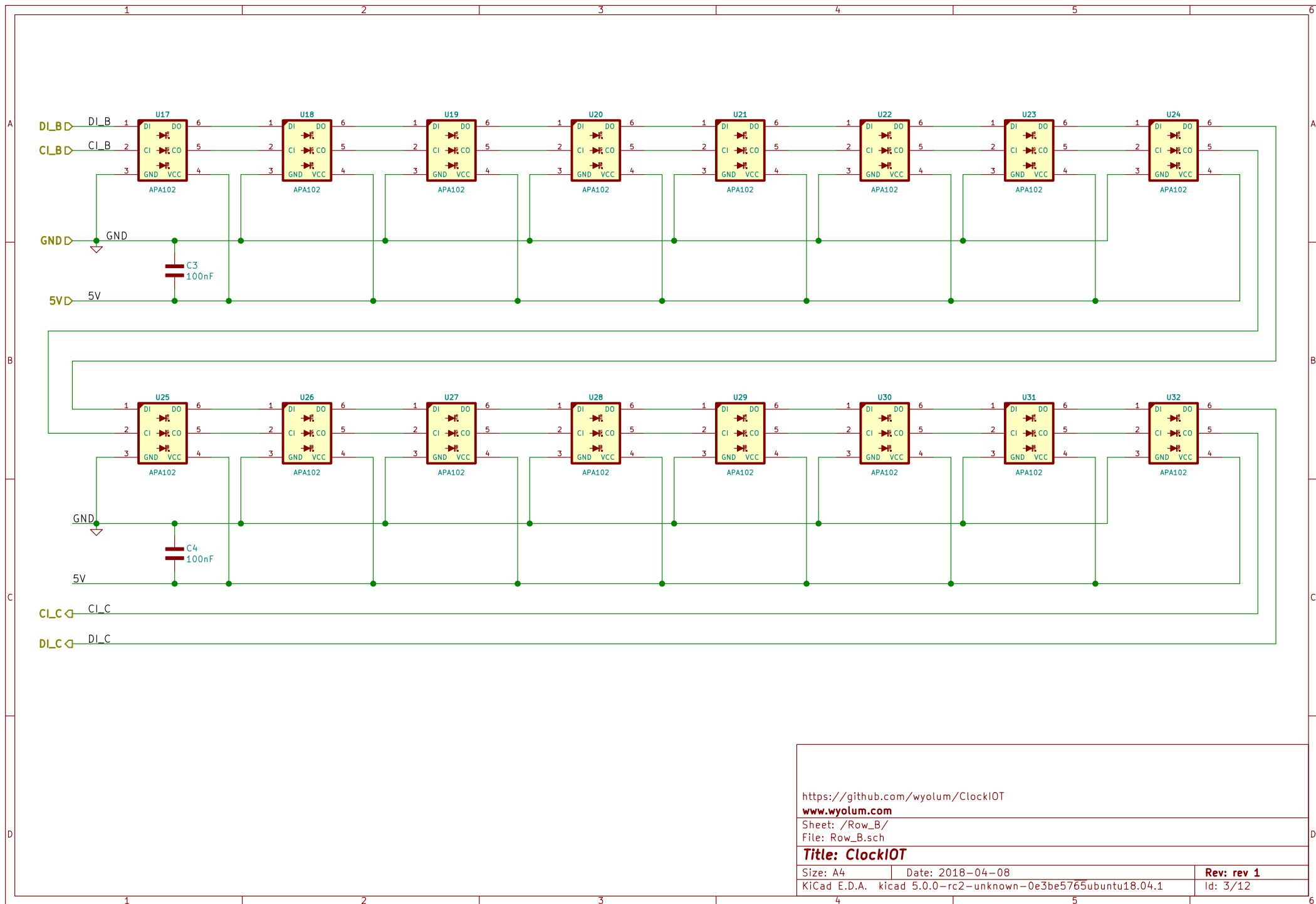
Size: A4

Date: 2018-04-08

Rev: rev 1

KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1

Id: 2/12



<https://github.com/wyolum/ClockIOT>

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Sheet: /Row_B/

File: Row_B.sch

Title: ClockIOT

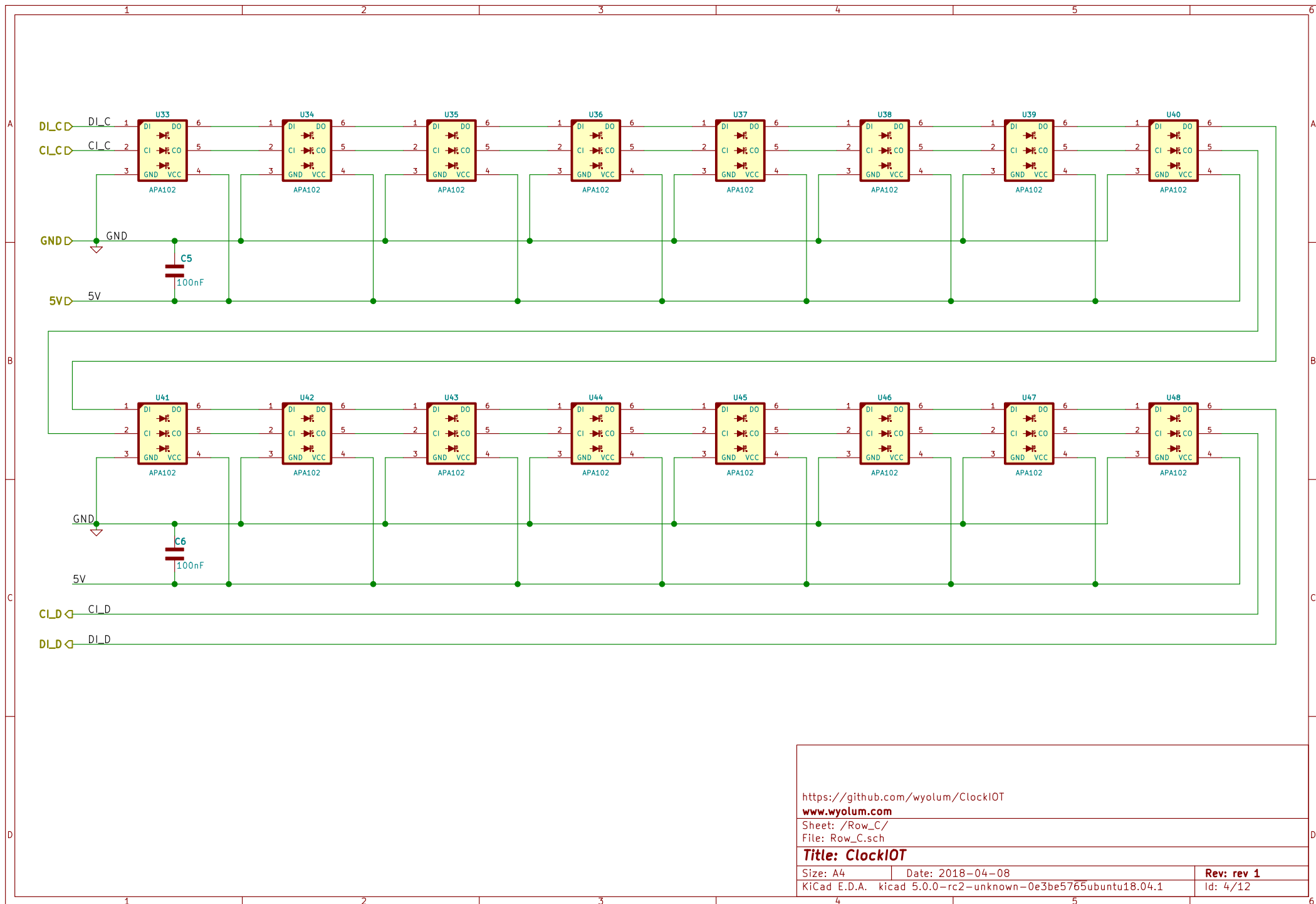
Size: A4

Date: 2018-04-08

Rev: rev 1

KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1

Id: 3/12



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Sheet: /Row_C/

File: Row_C.sch

Title: ClockIOT

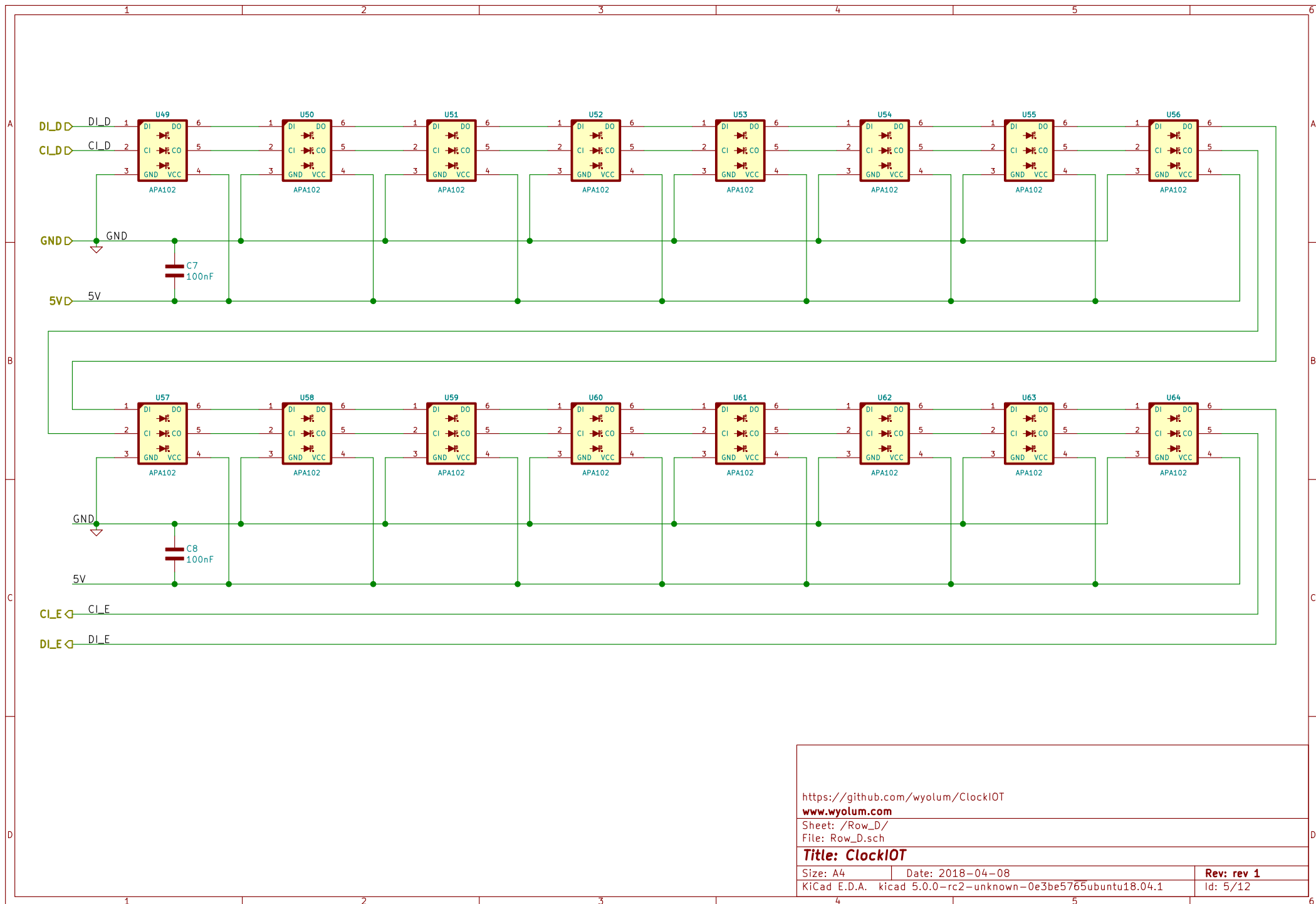
Size: A4

Date: 2018-04-08

Rev: rev 1

KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1

Id: 4/12



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Sheet: /Row_D/

File: Row_D.sch

Title: ClockIOT

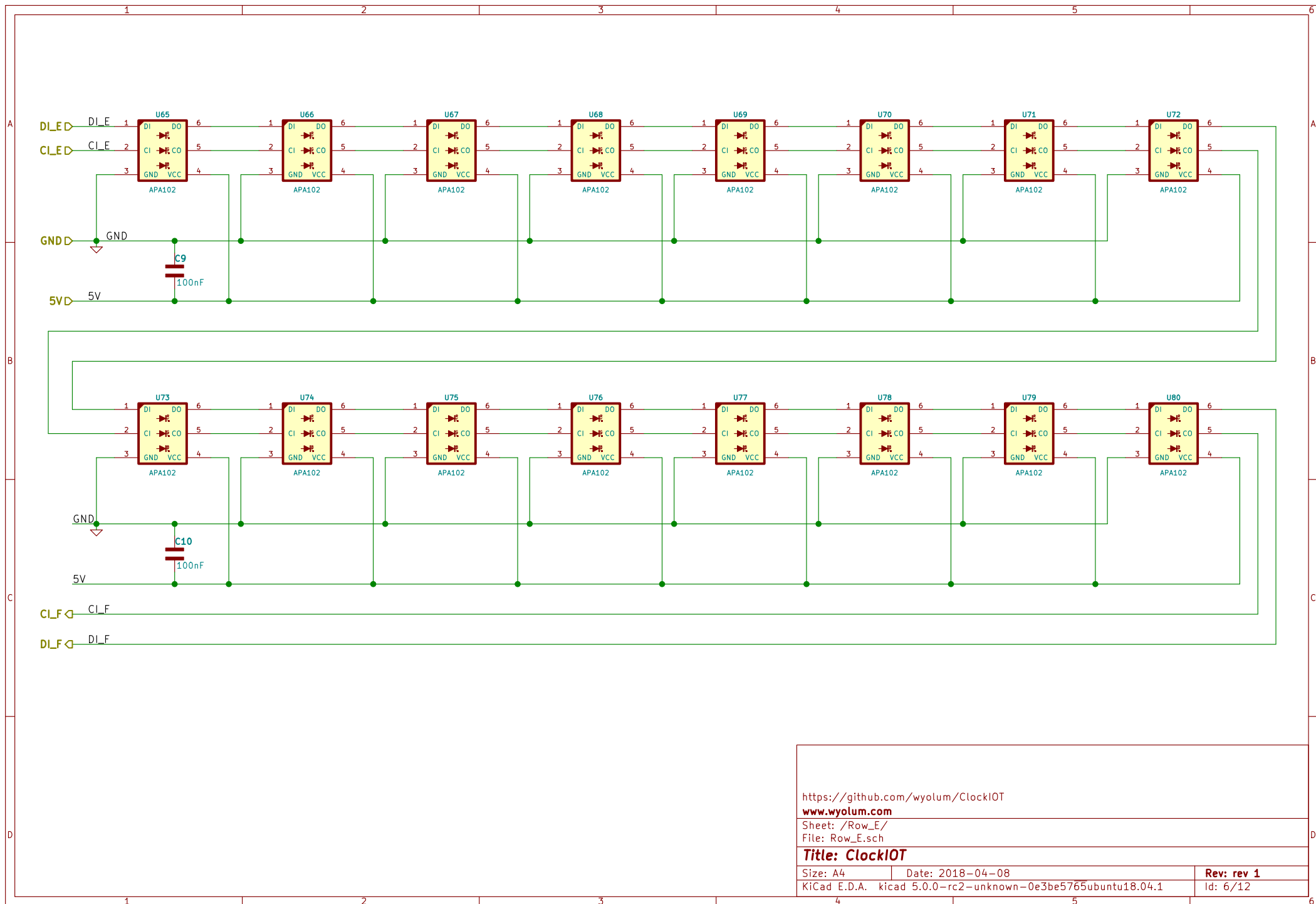
Size: A4

Date: 2018-04-08

Rev: rev 1

KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1

Id: 5/12



<https://github.com/wyolum/ClockIOT>

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Sheet: /Row_E/

File: Row_E.sch

Title: ClockIOT

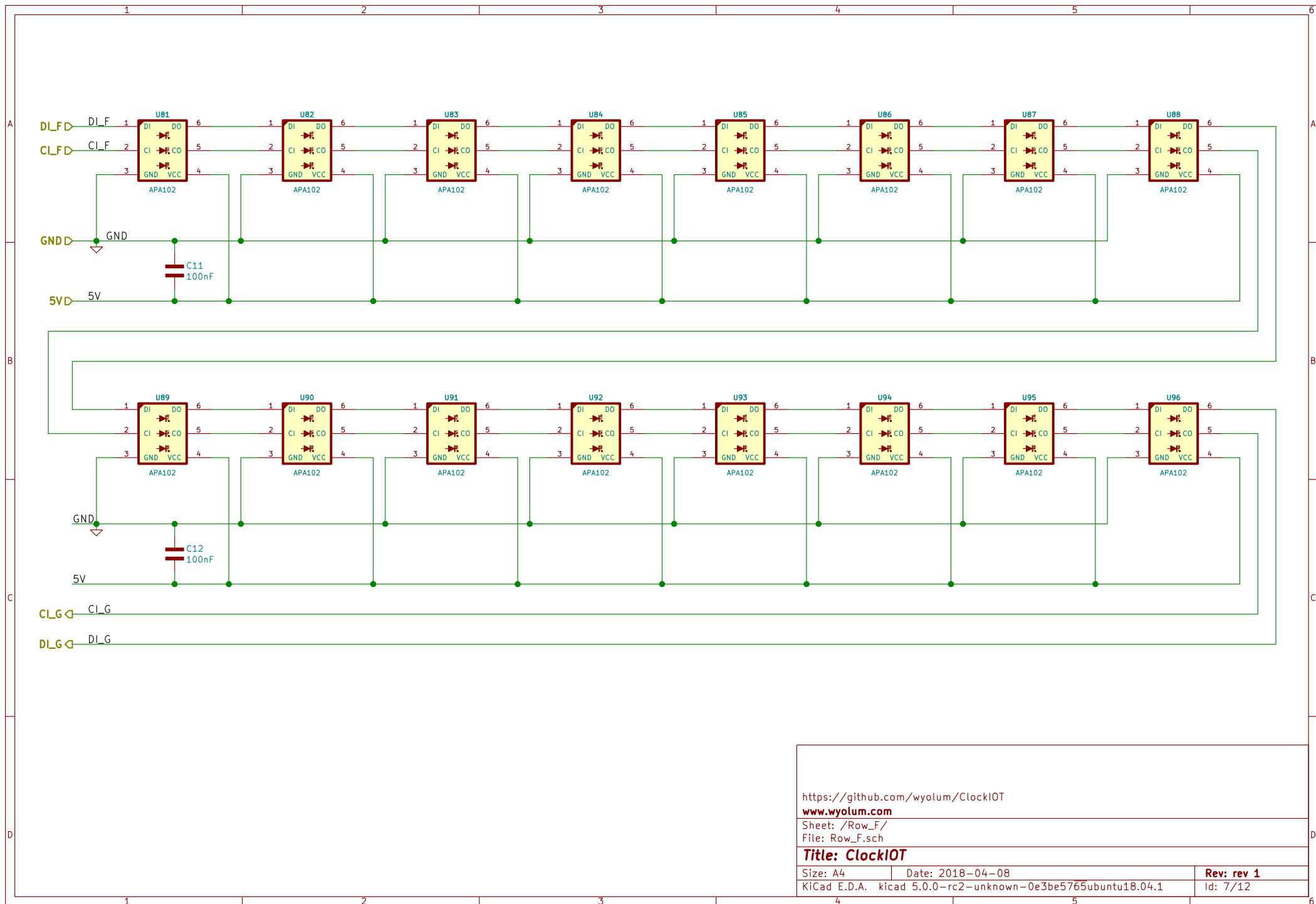
Size: A4

Date: 2018-04-08

Rev: rev 1

KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1

Id: 6/12



<https://github.com/wyolum/ClockIOT>

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Sheet: /Row_F/

File: Row_F.sch

Title: ClockIOT

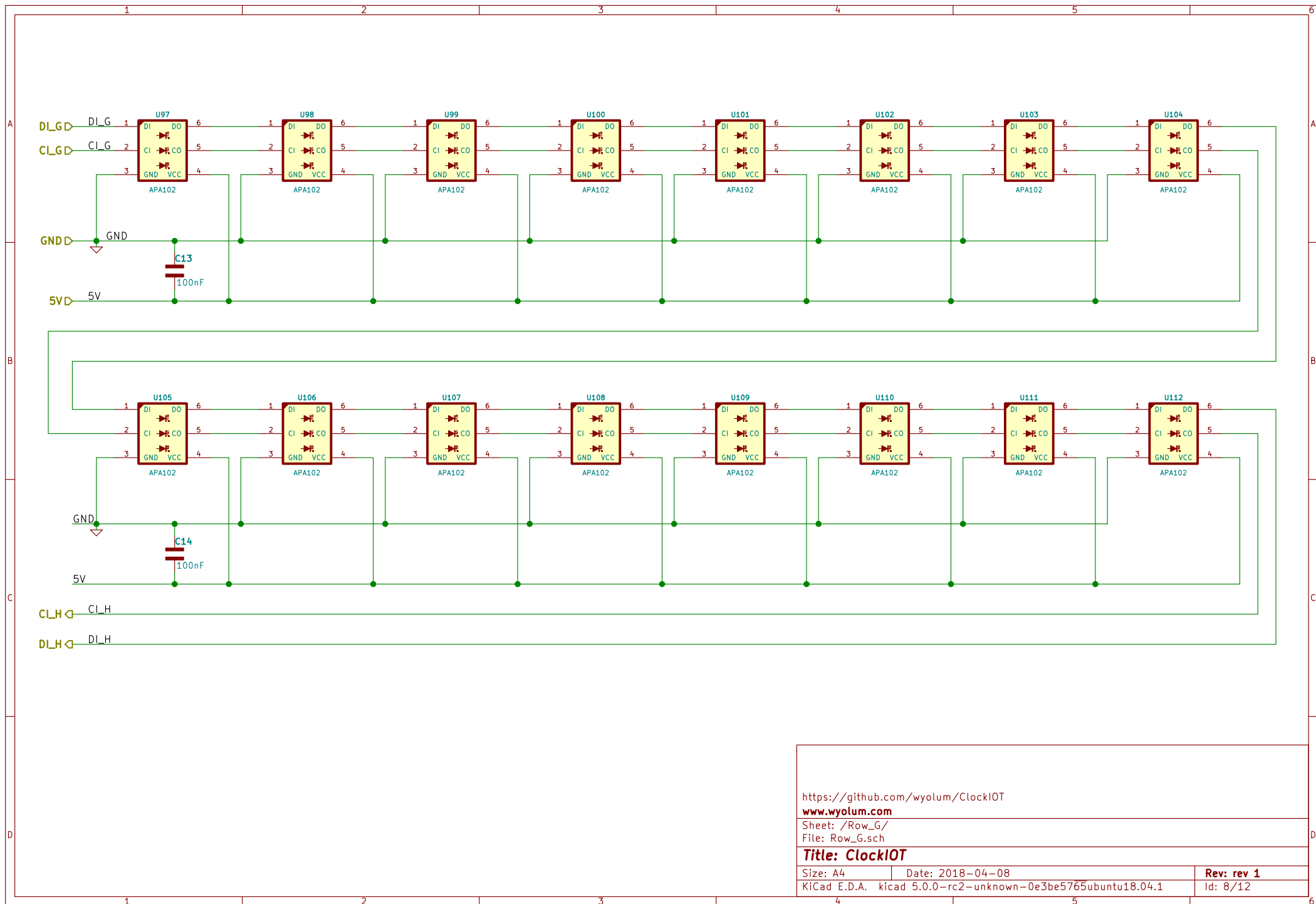
Size: A4

Date: 2018-04-08

Rev: rev 1

KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1

Id: 7/12



<https://github.com/wyolum/ClockIOT>

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Sheet: /Row_G/

File: Row_G.sch

Title: ClockIOT

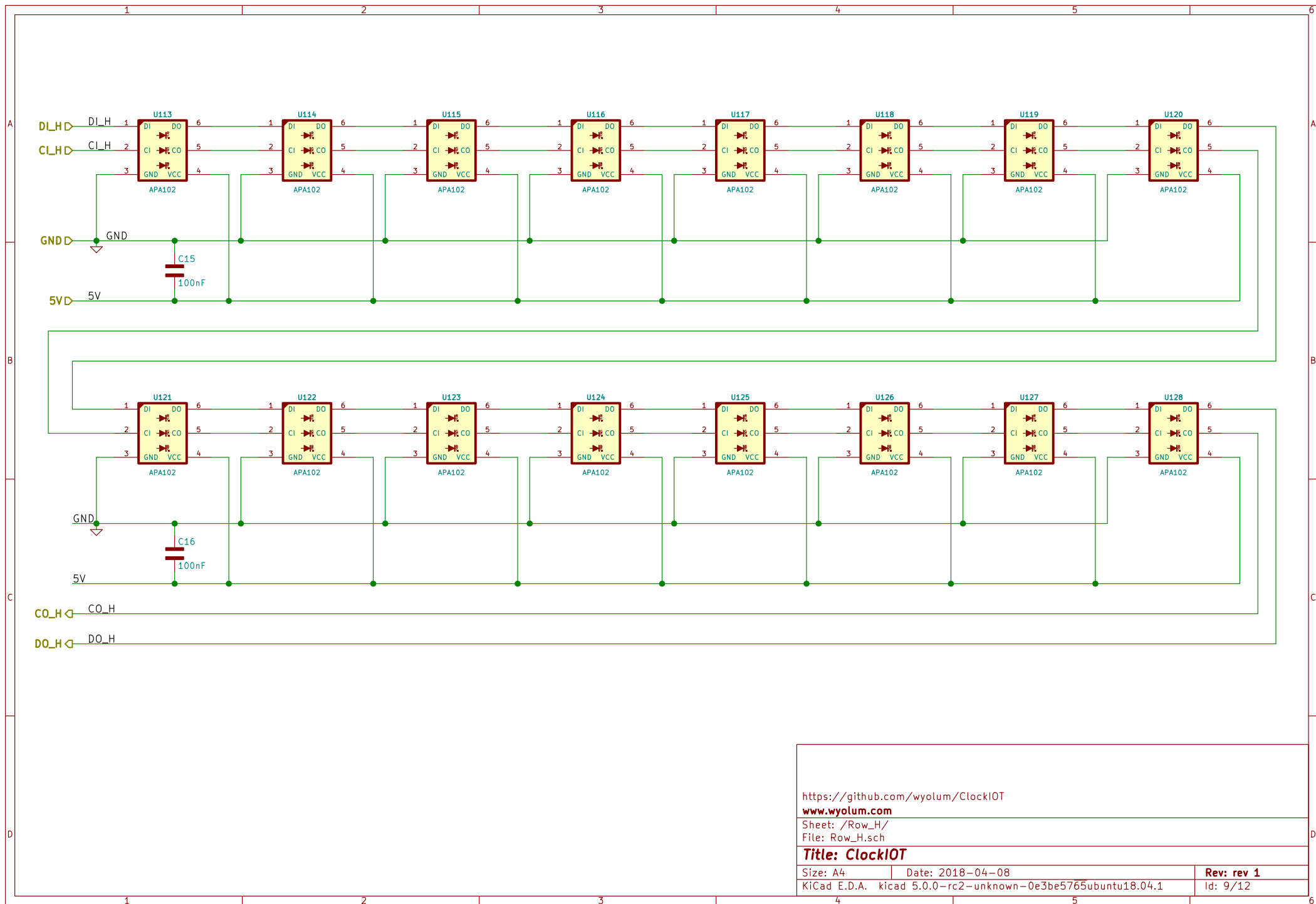
Size: A4

Date: 2018-04-08

Rev: rev 1

KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1

Id: 8/12



<https://github.com/wyolum/ClockIOT>

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Sheet: /Row_H/

File: Row_H.sch

Title: ClockIOT

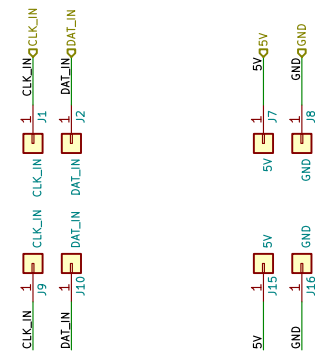
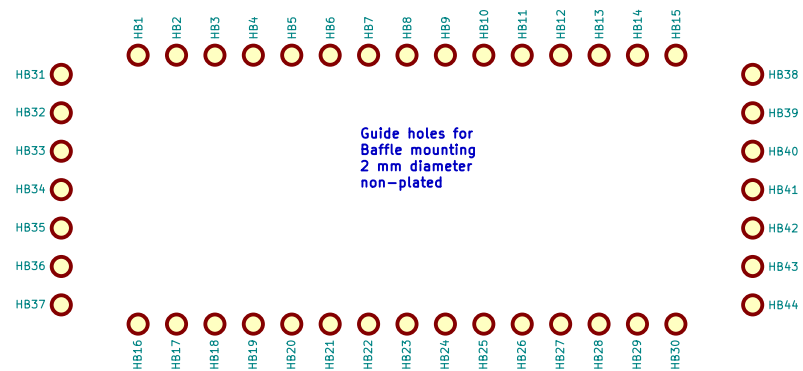
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Date: 2018-04-08

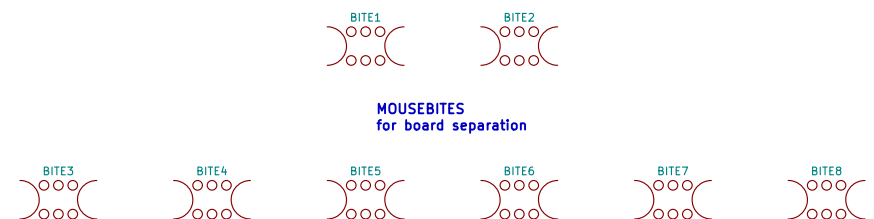
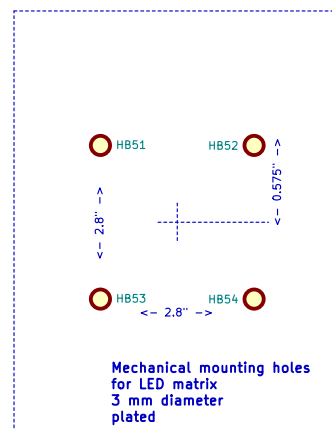
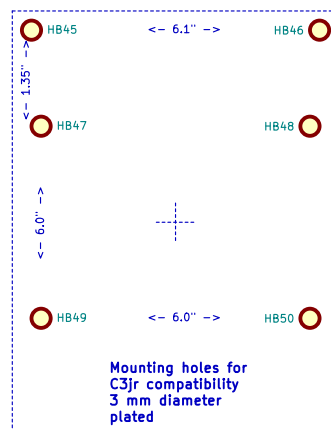
Rev: rev 1

KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1

Id: 9/12



Mounting holes for
piggy back attachment
of "snap-off" control board.
Use M3 HEX posts to connect
LED board to control board



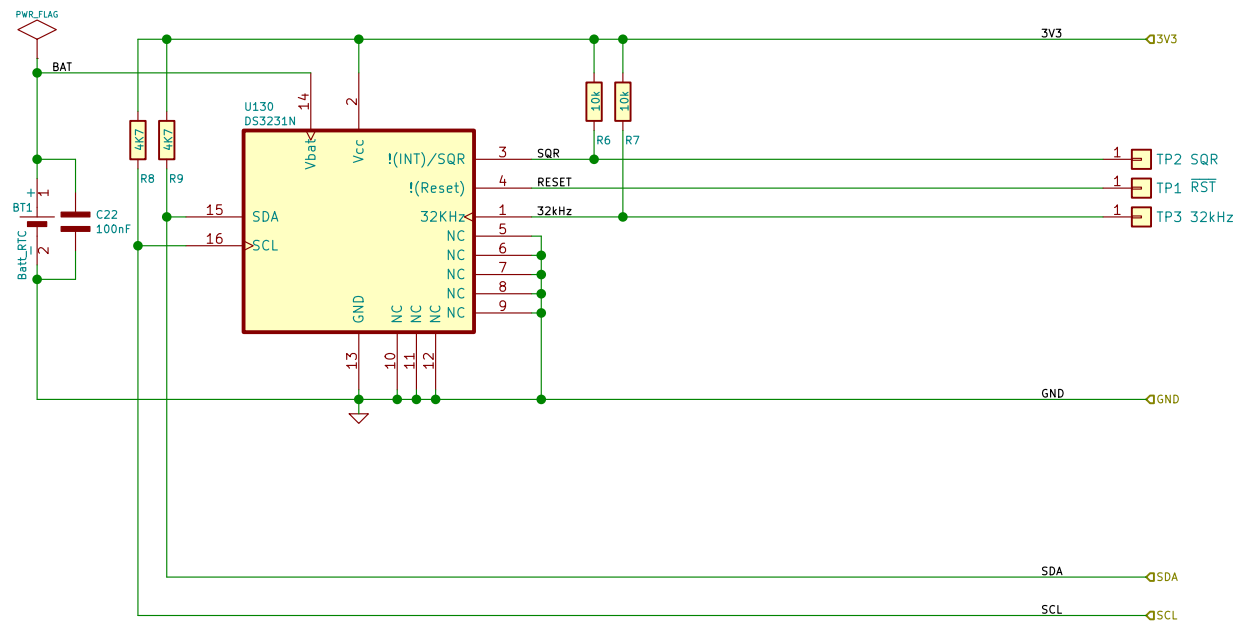
<https://github.com/wyolum/ClockIoT>
www.wyolum.com

Sheet: /mechanical/
File: mechanical.sch

Title: ClockIoT

Size: A4	Date: 2018-04-08
KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1	

Rev: rev 1
Id: 10/12



<https://github.com/wyolum/ClockIOT>

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Sheet: /rtc_ds3231/

File: rtc_ds3231.sch

Title: ClockIOT

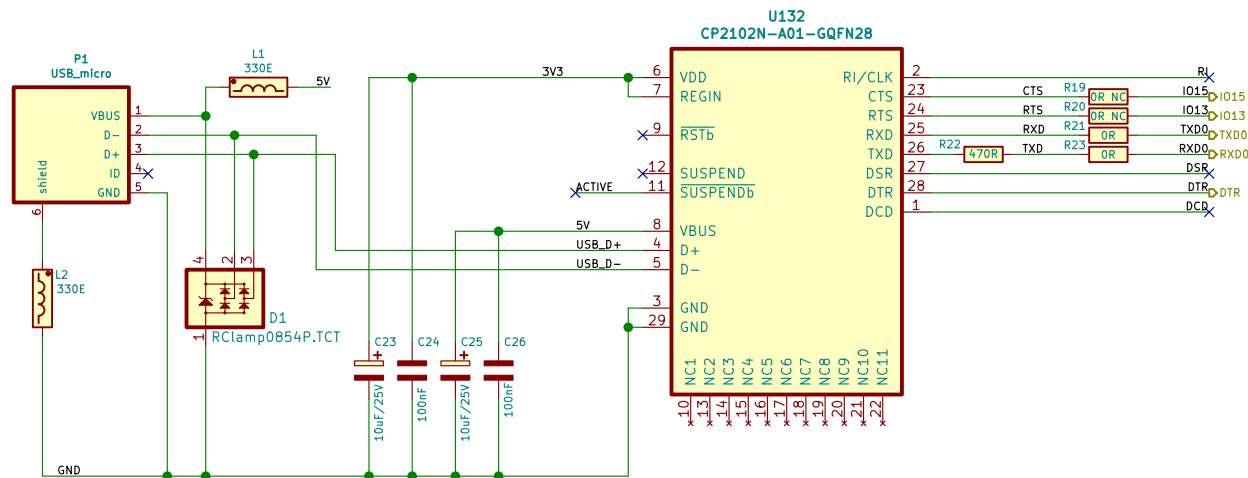
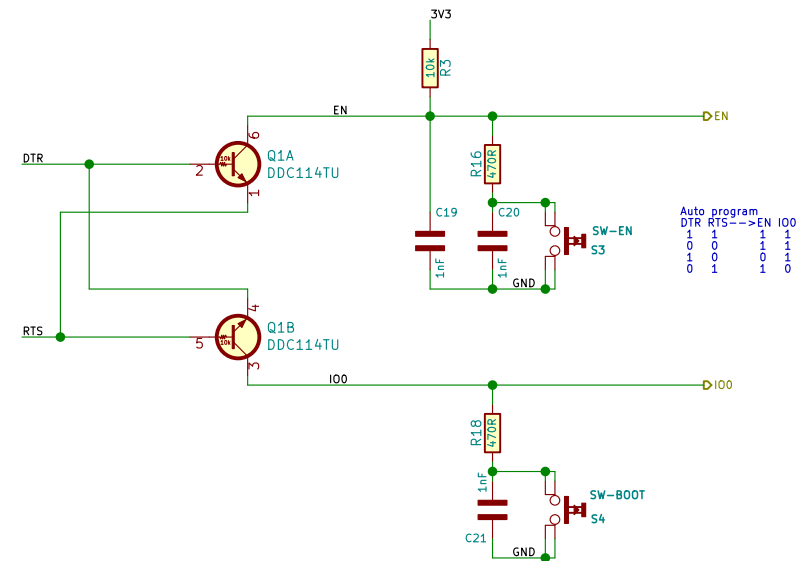
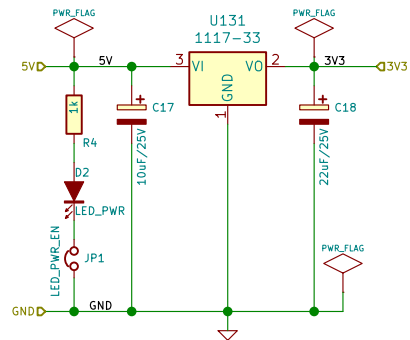
Size: A4


Date: 2018-04-08

Rev: rev 1

KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1

Id: 11/12





<https://github.com/wyolum/ClockIoT>
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 Sheet: /esp_pwr_uart/
 File: esp_pwr_uart.sch

open source hardware

Title: ClockIoT

Size: A4	Date: 2018-04-08
KiCad E.D.A. kicad 5.0.0-rc2-unknown-0e3be5765ubuntu18.04.1	
Rev: rev 1	Id: 12/12