

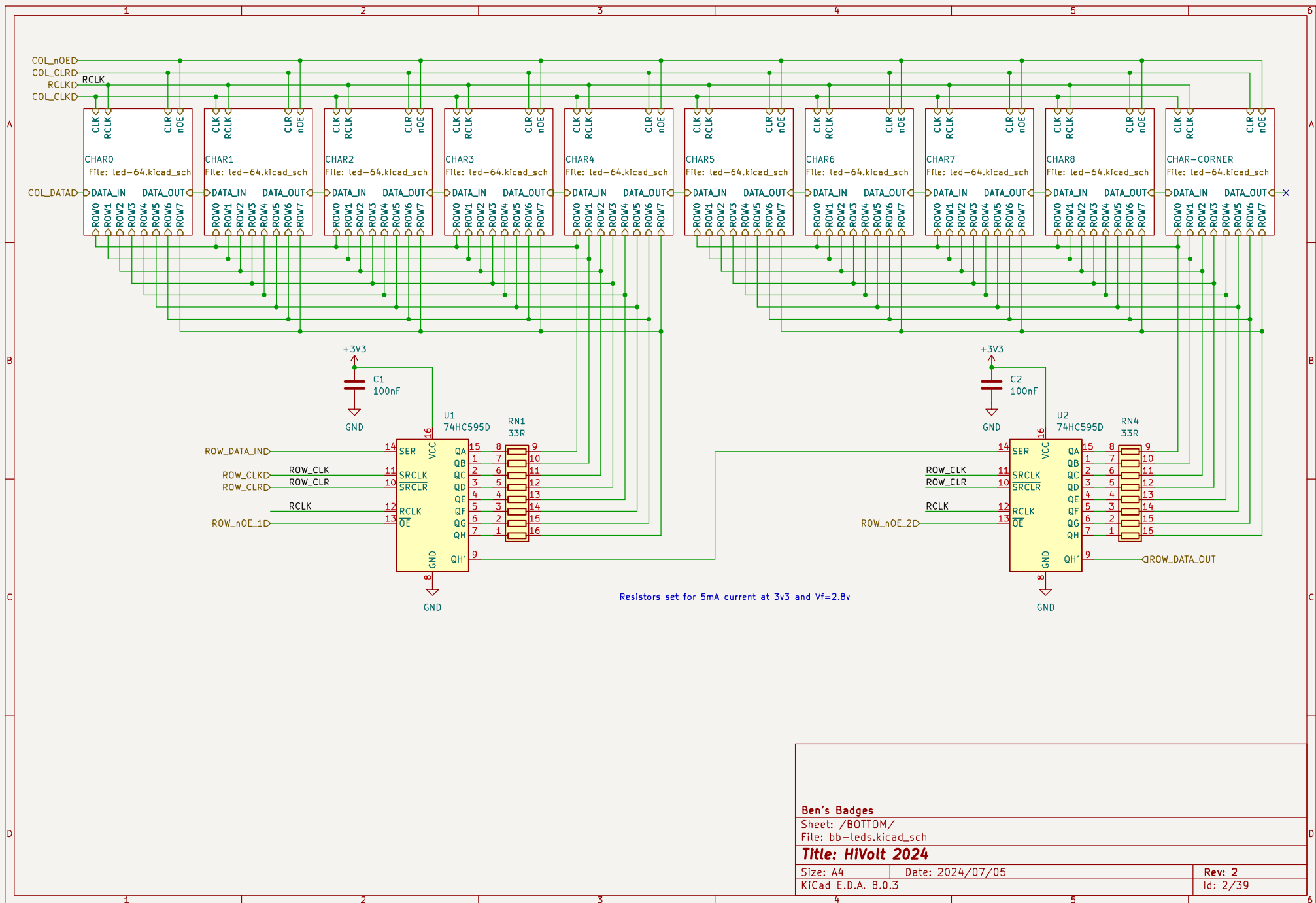
### Ben's Badges

Sheet: /  
File: bb-test.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 1/39



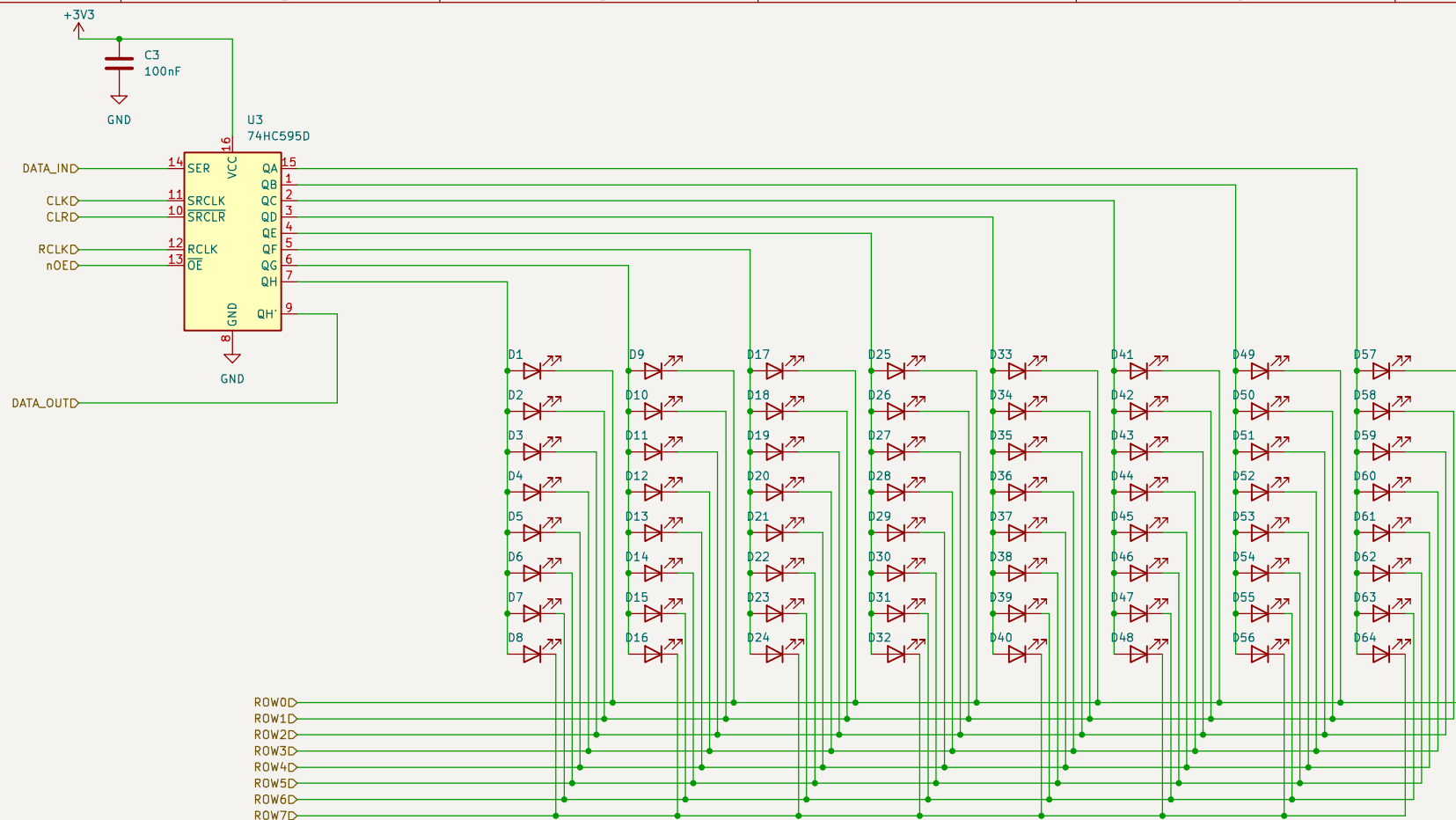
# Ben's Badges

Sheet: /BOTTOM/  
File: bb-leds.kicad\_sch

Title: HiVolt 2024

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 2/39



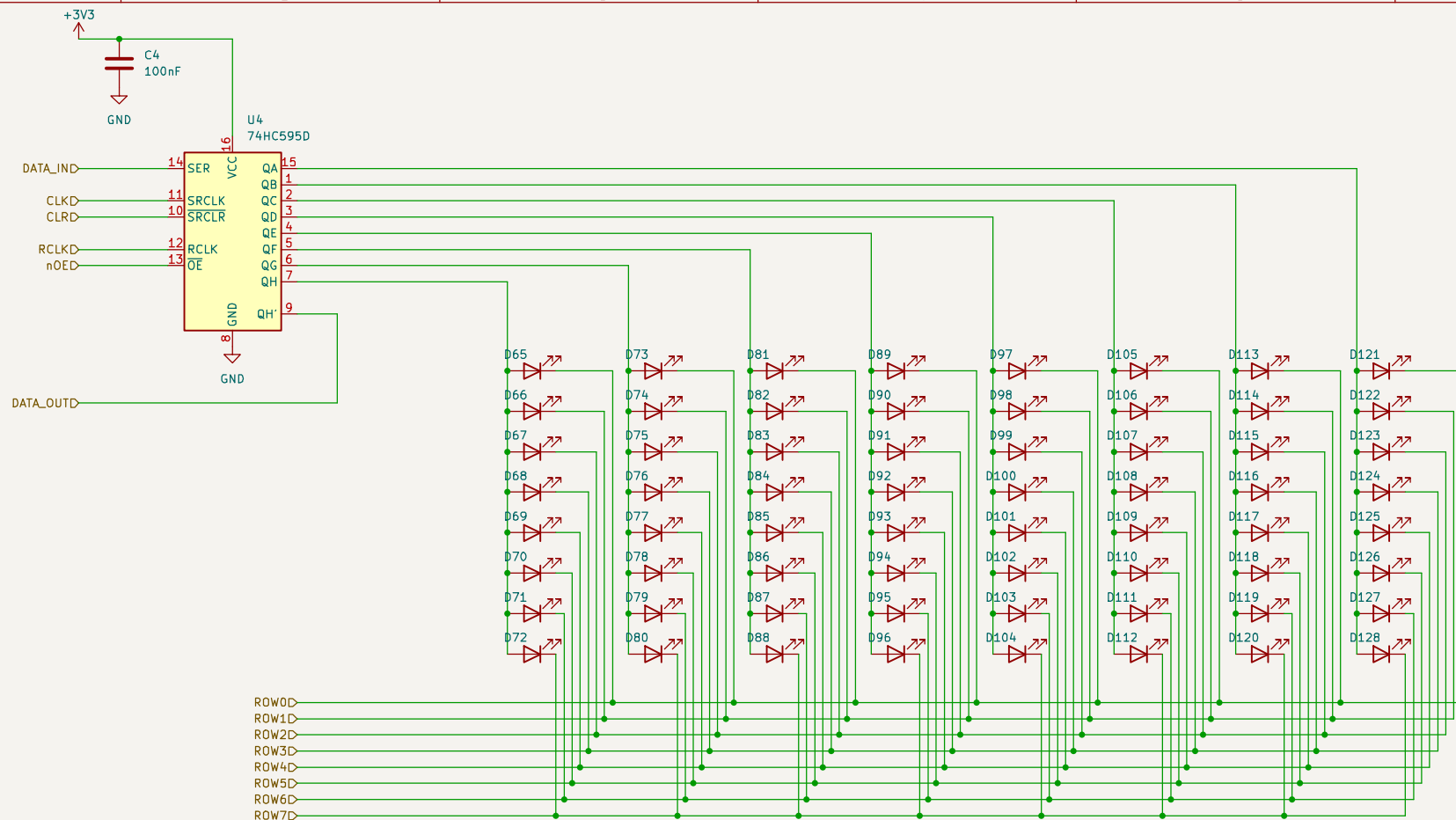
# Ben's Badges

Sheet: /BOTTOM/CHAR0/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



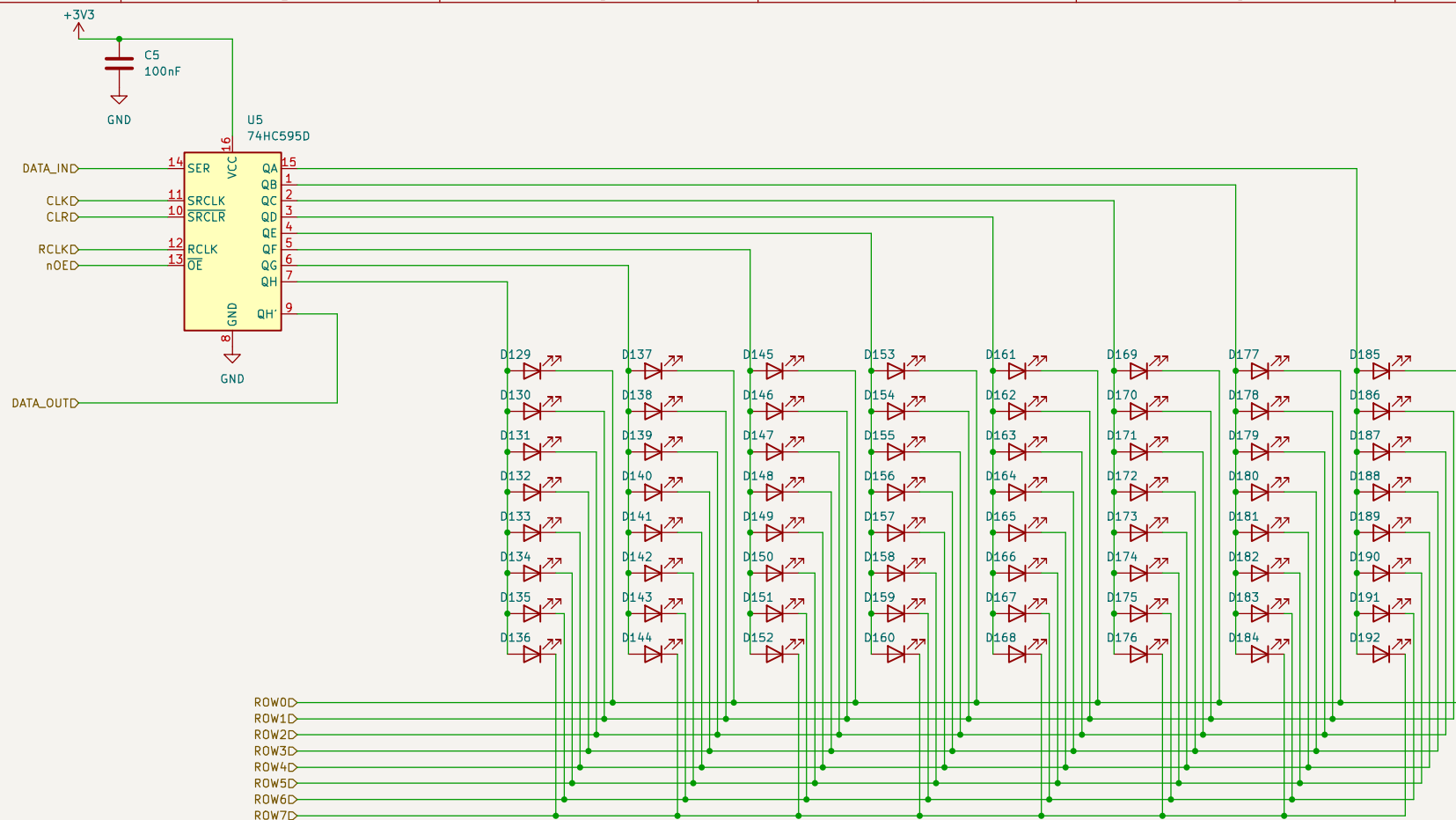
#### Ben's Badges

Sheet: /BOTTOM/CHAR1/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



# Ben's Badges

Sheet: /BOTTOM/CHAR2/

File: led-64.kicad\_sch

**Title: HiVolt 2024**

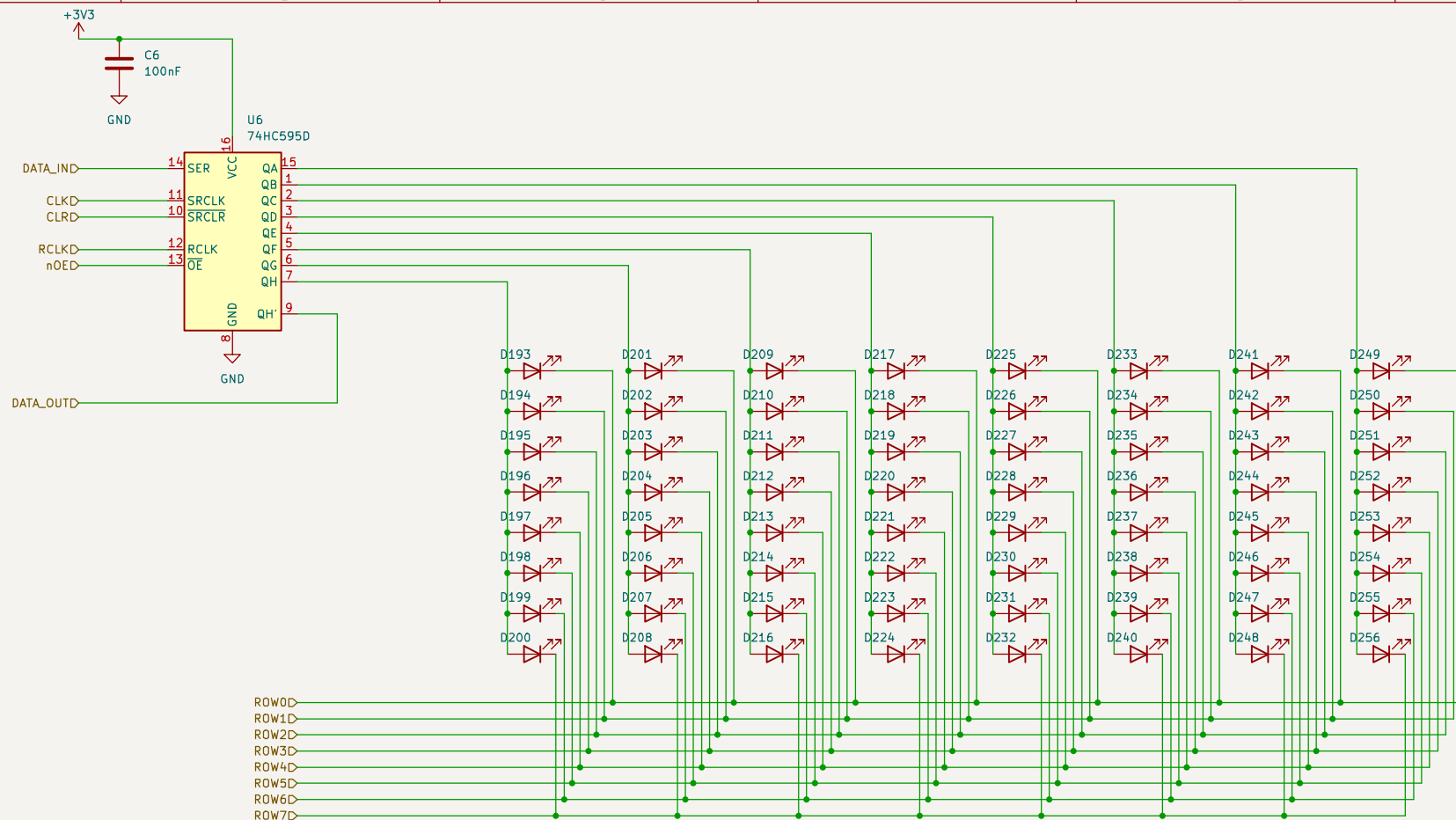
Size: A4

Date: 2024/07/05

Rev: 2

KiCad E.D.A. 8.0.3

Id: 14/39



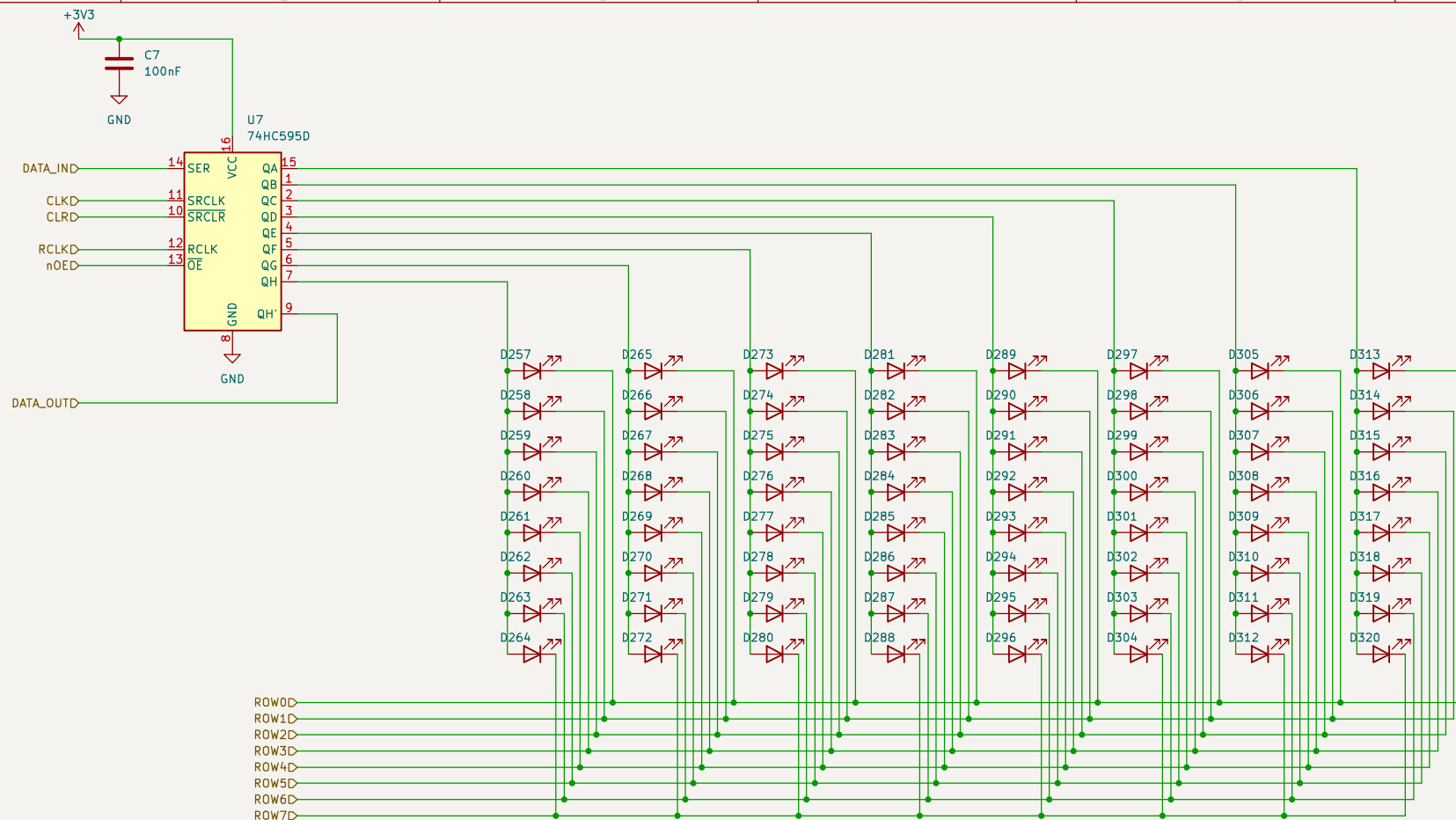
#### Ben's Badges

Sheet: /BOTTOM/CHAR3/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



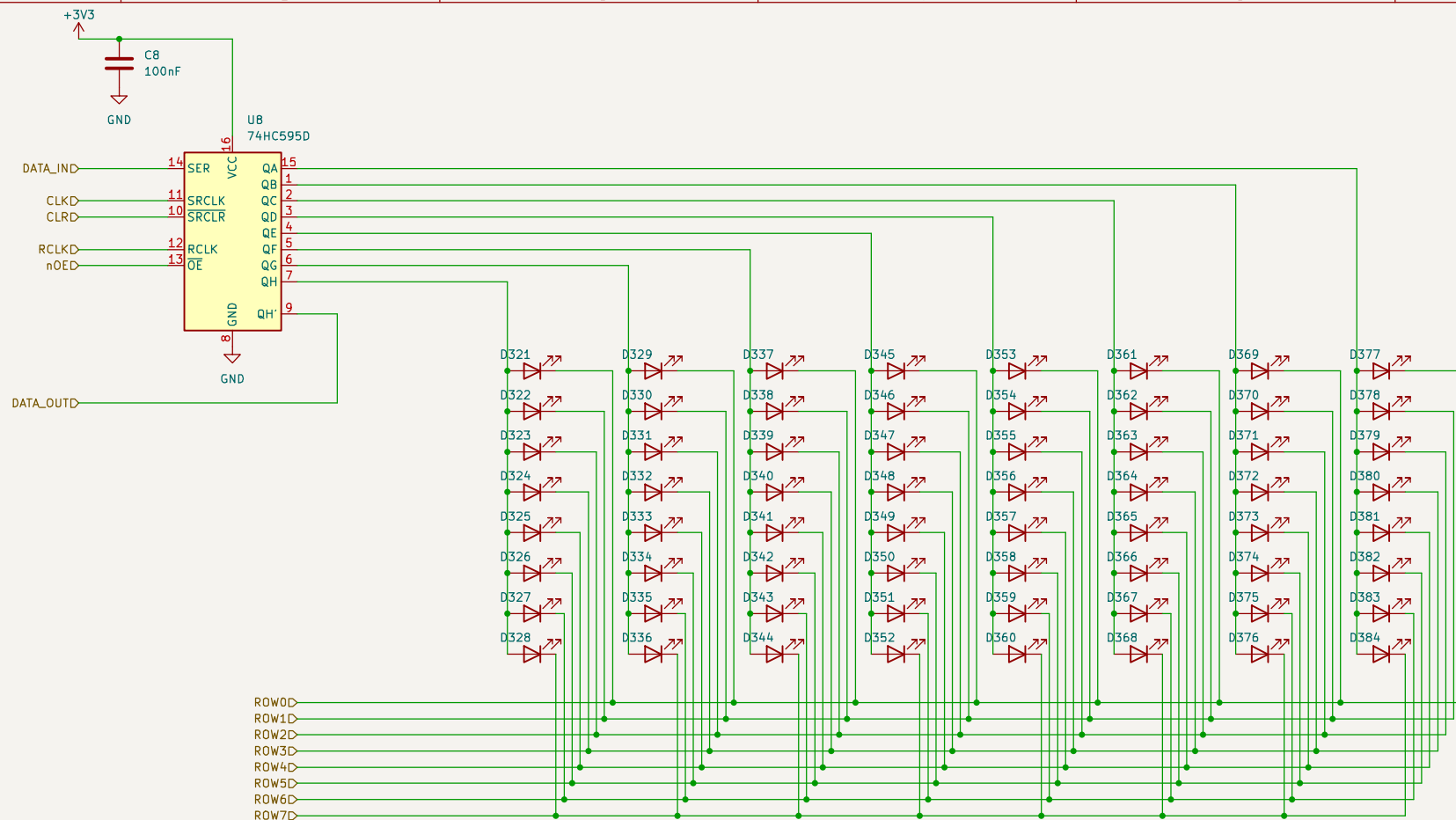
# **Ben's Badges**

Sheet: /BOTTOM/CHAR4/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



# **Ben's Badges**

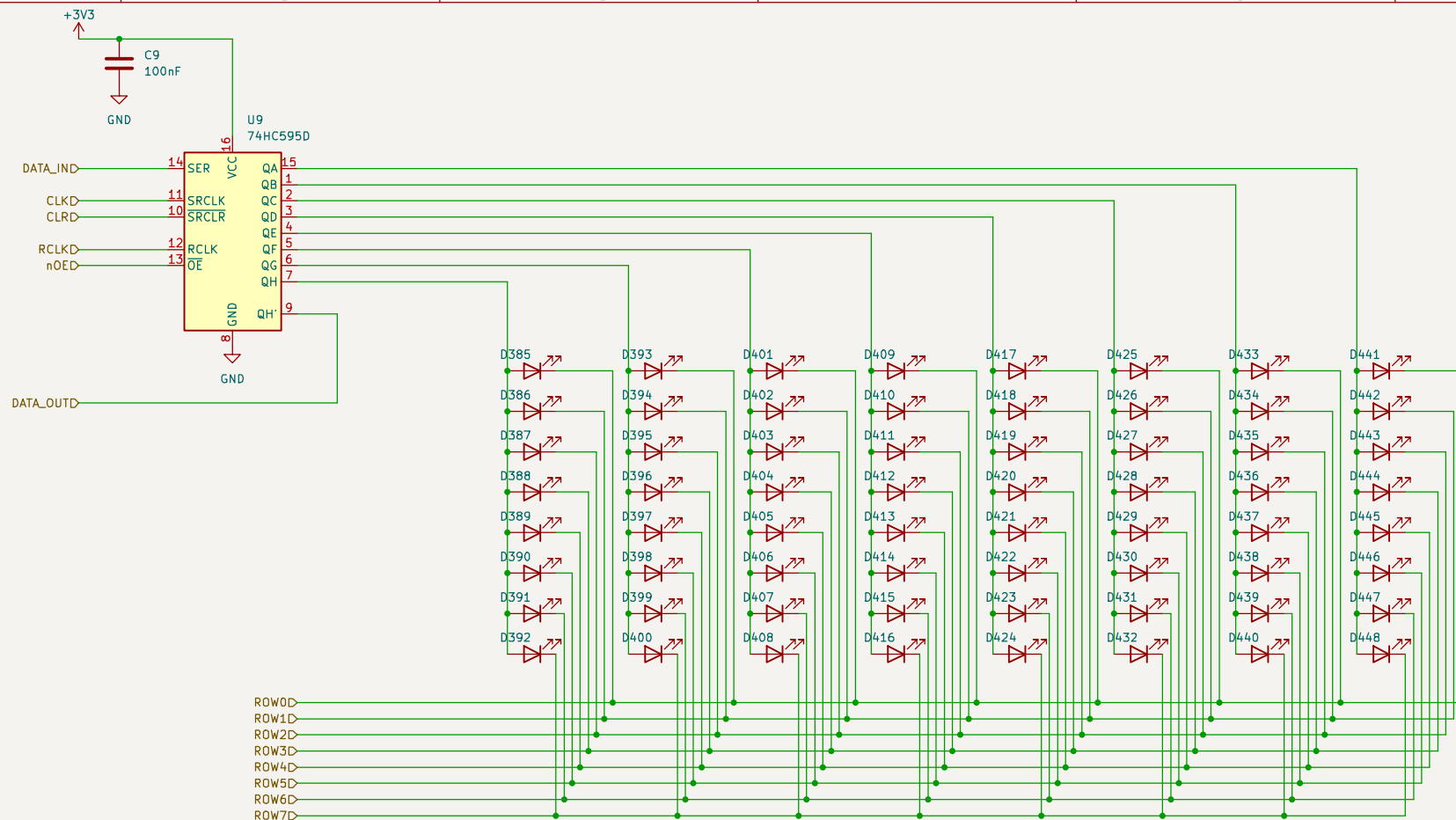
Sheet: /BOTTOM/CHAR5/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39





# Ben's Badges

Sheet: /BOTTOM/CHAR6/

File: led-64.kicad\_sch

**Title: HiVolt 2024**

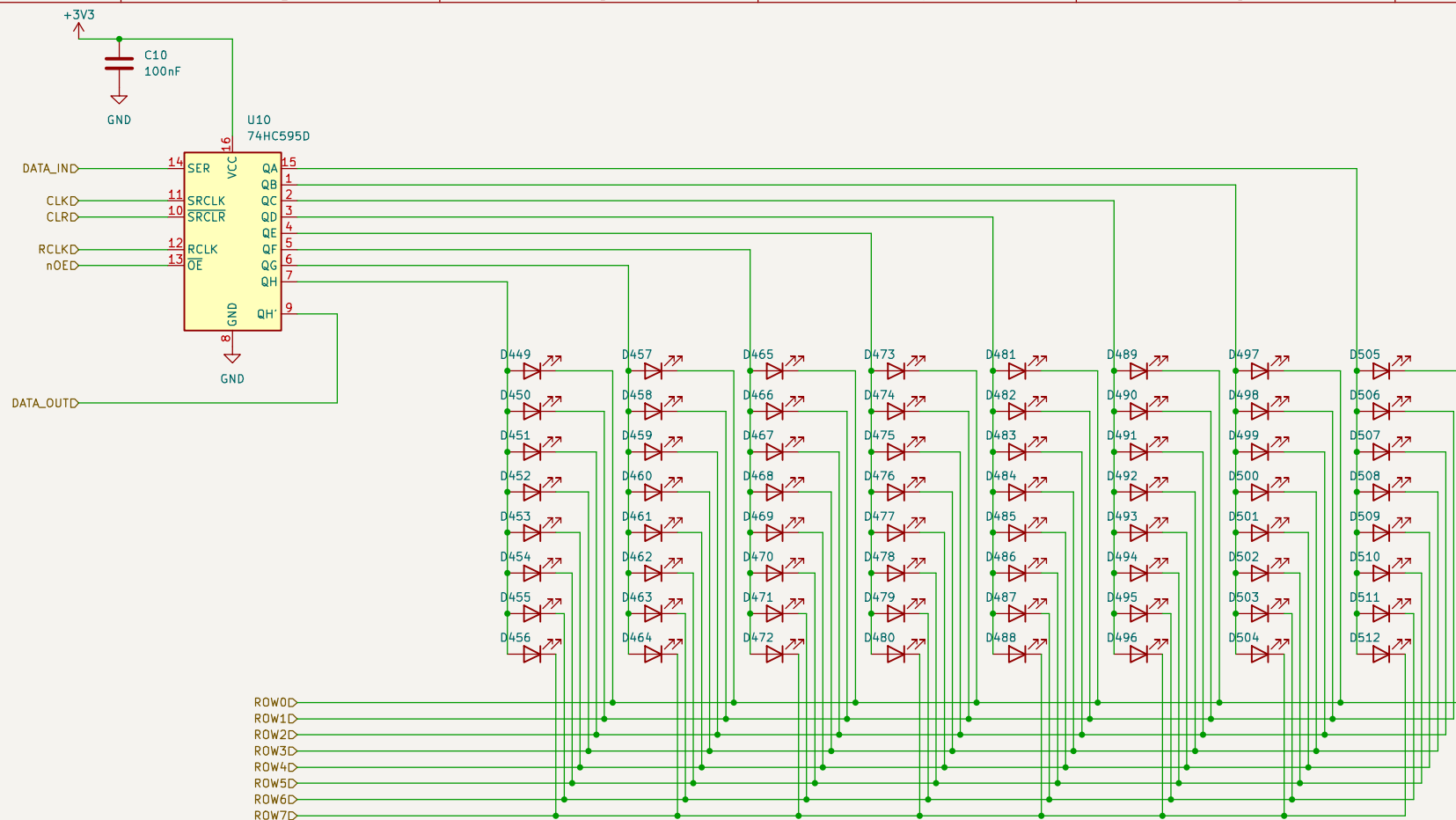
Size: A4

Date: 2024/07/05

Rev: 2

KiCad E.D.A. 8.0.3

Id: 14/39



#### Ben's Badges

Sheet: /BOTTOM/CHAR7/

File: led-64.kicad\_sch

**Title: HiVolt 2024**

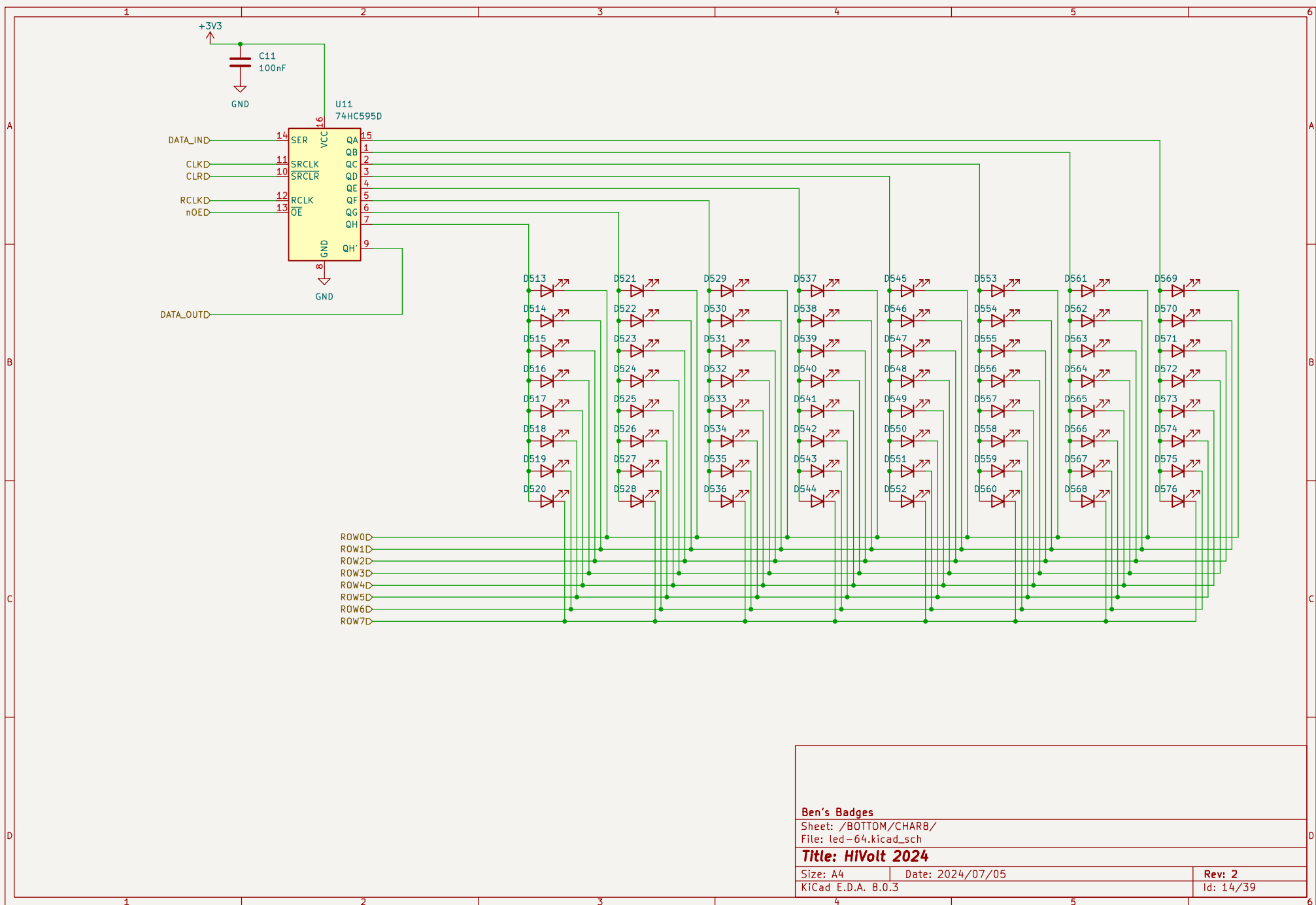
Size: A4

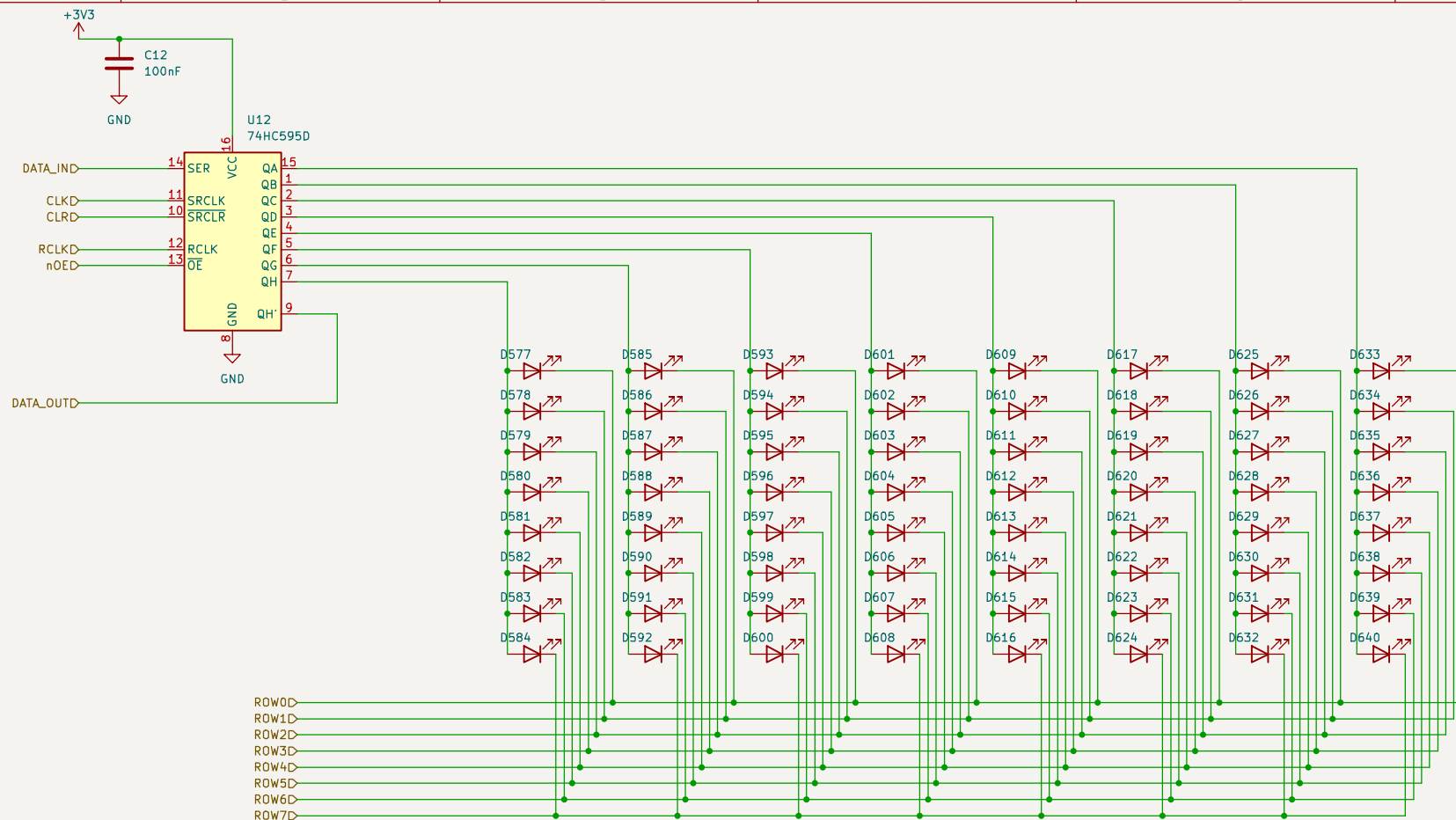
Date: 2024/07/05

Rev: 2

KiCad E.D.A. 8.0.3

Id: 14/39





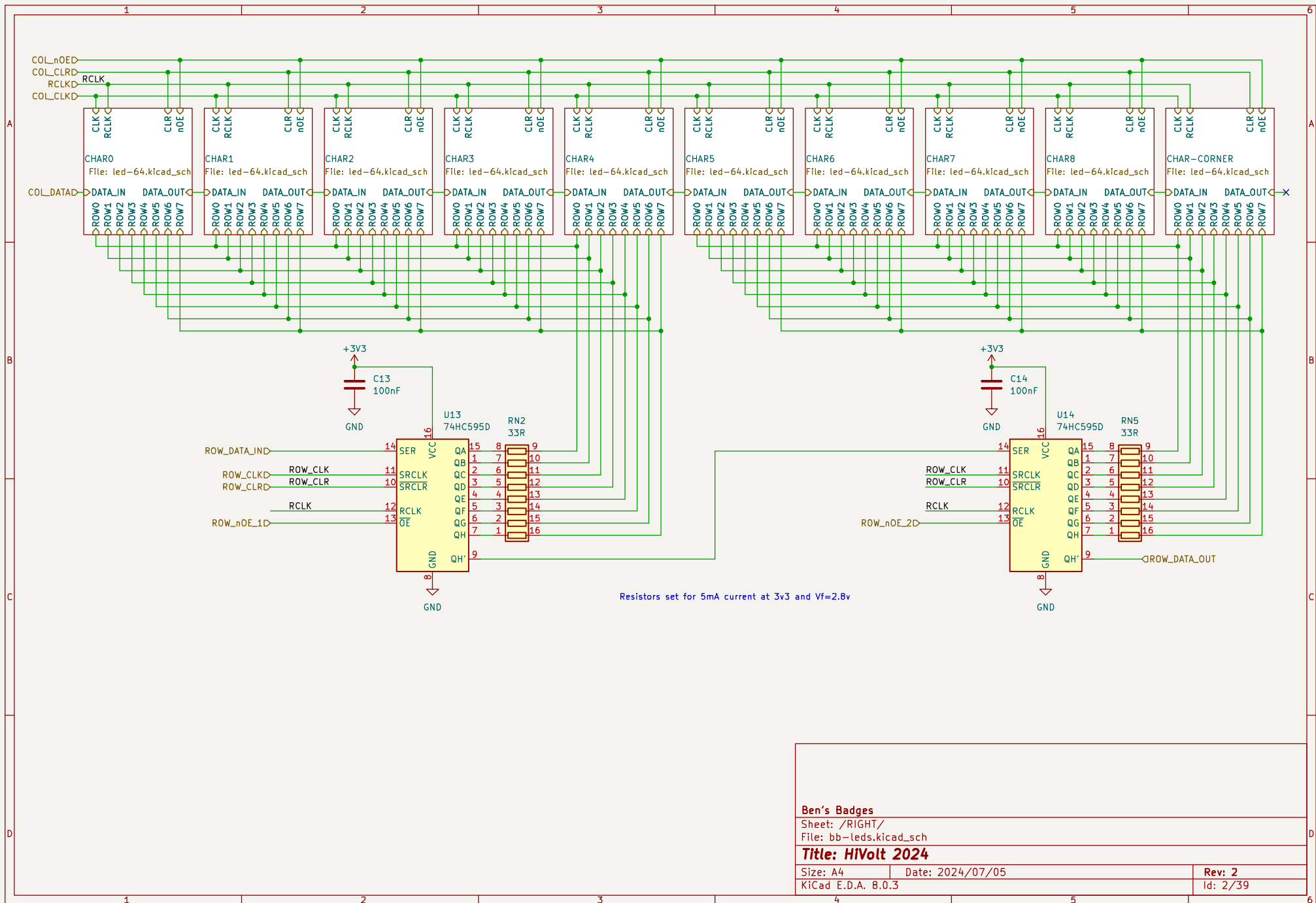
#### Ben's Badges

Sheet: /BOTTOM/CHAR-CORNER/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



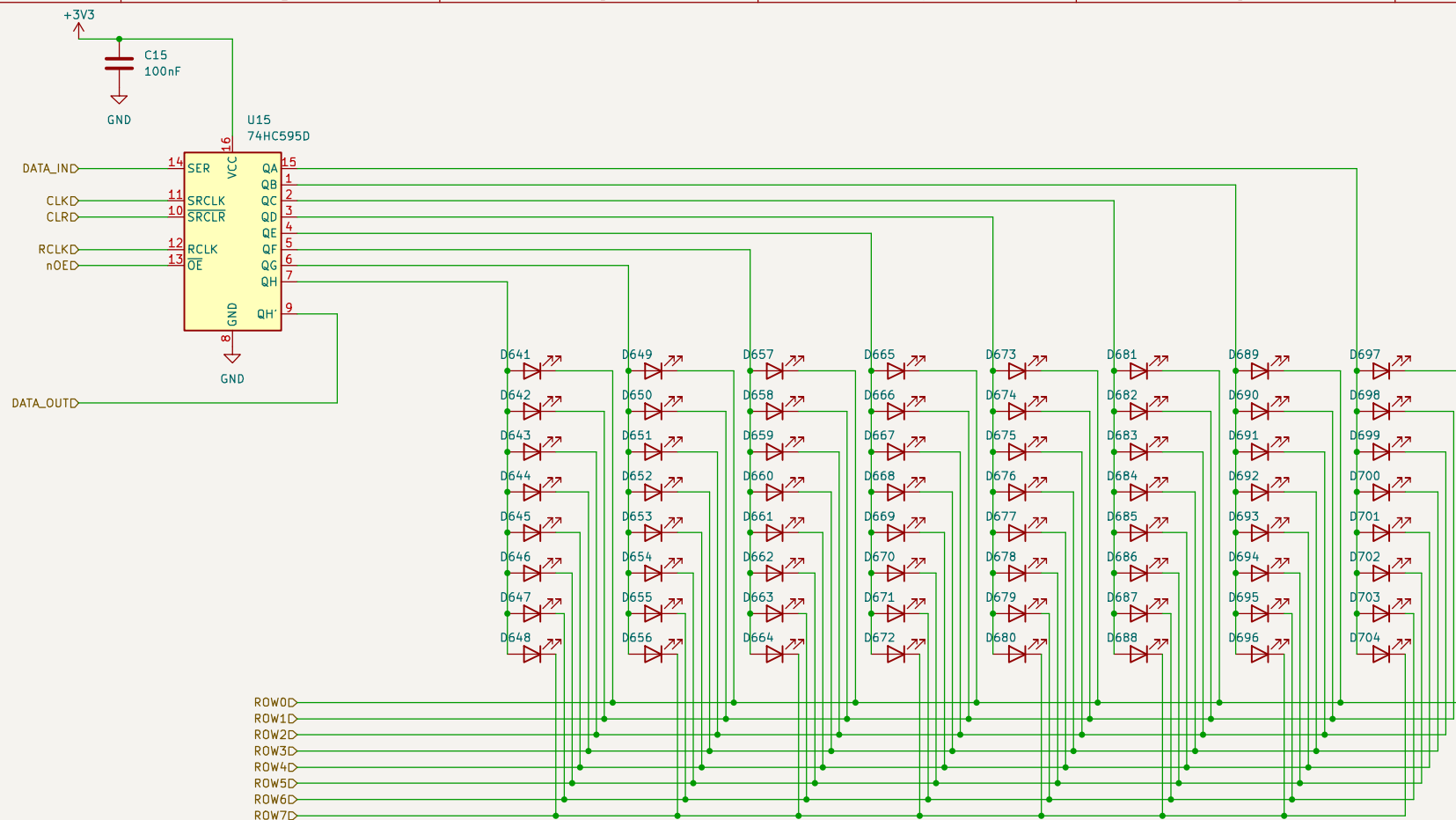
Ben's Badges

Sheet: /RIGHT/  
File: bb-leds.kicad\_sch

Title: HiVolt 2024

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 2/39



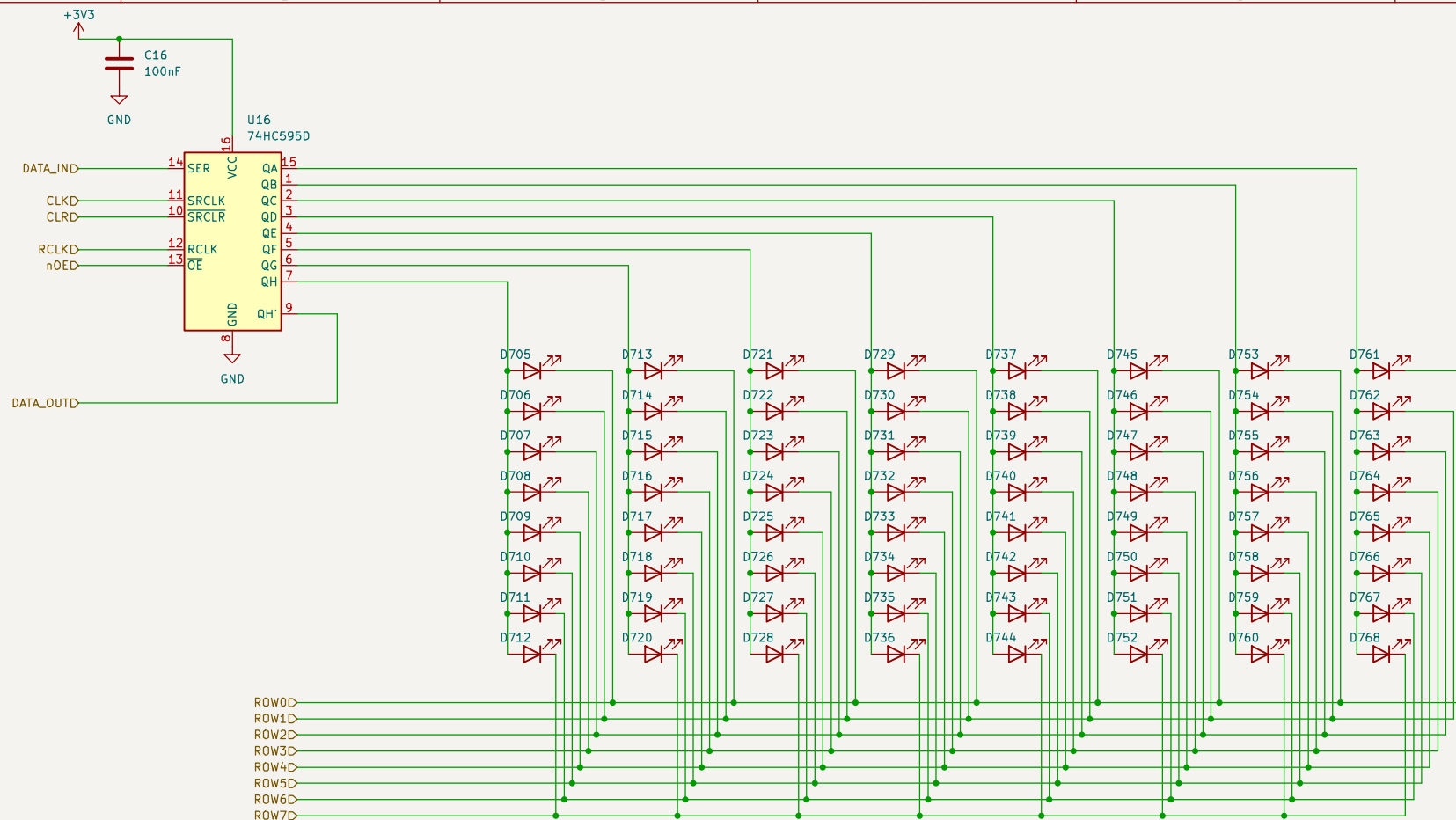
# Ben's Badges

Sheet: /RIGHT/CHAR0/  
File: led-64.kicad\_sch

Title: HiVolt 2024

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



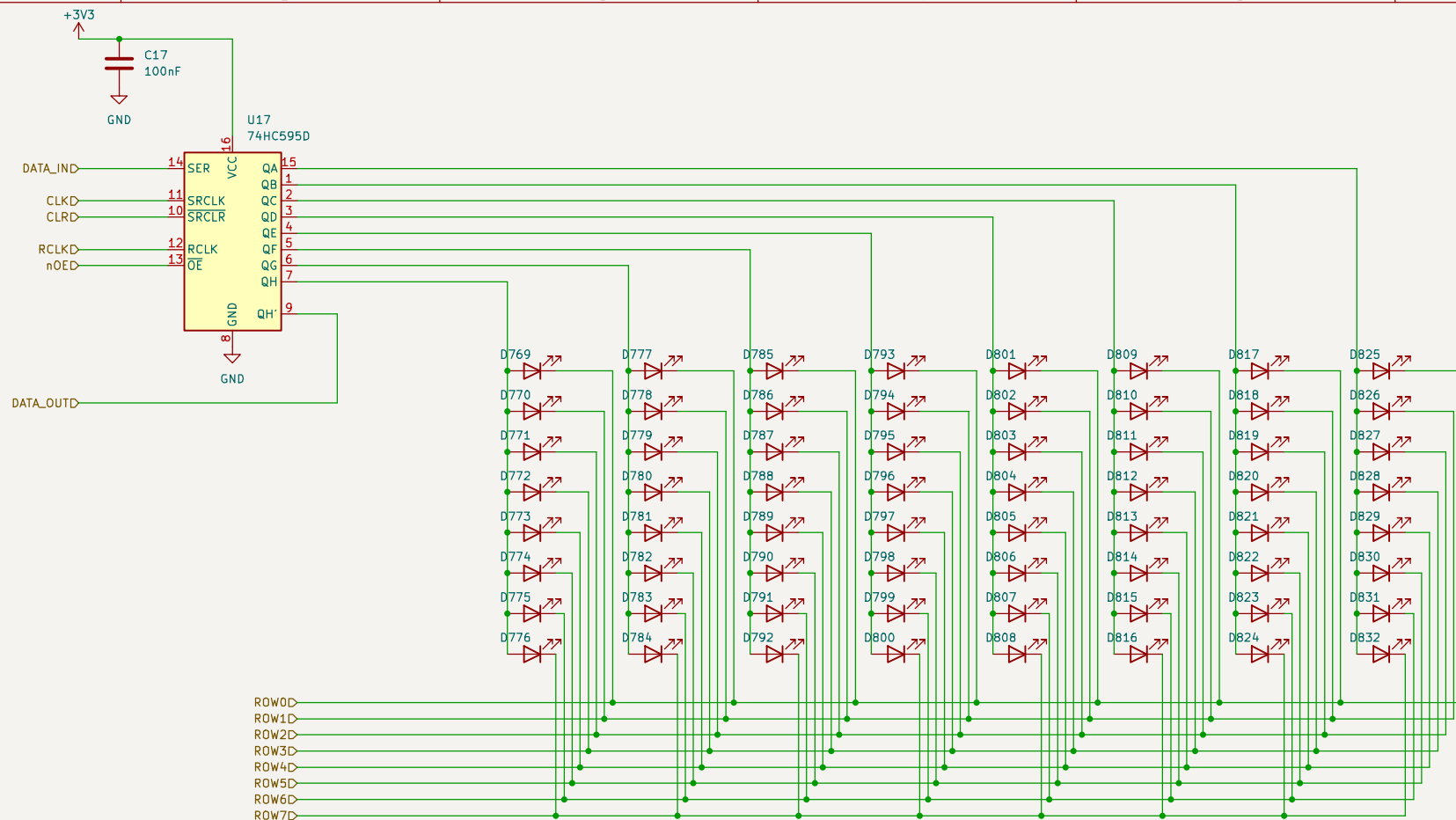
# **Ben's Badges**

Sheet: /RIGHT/CHAR1/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



# Ben's Badges

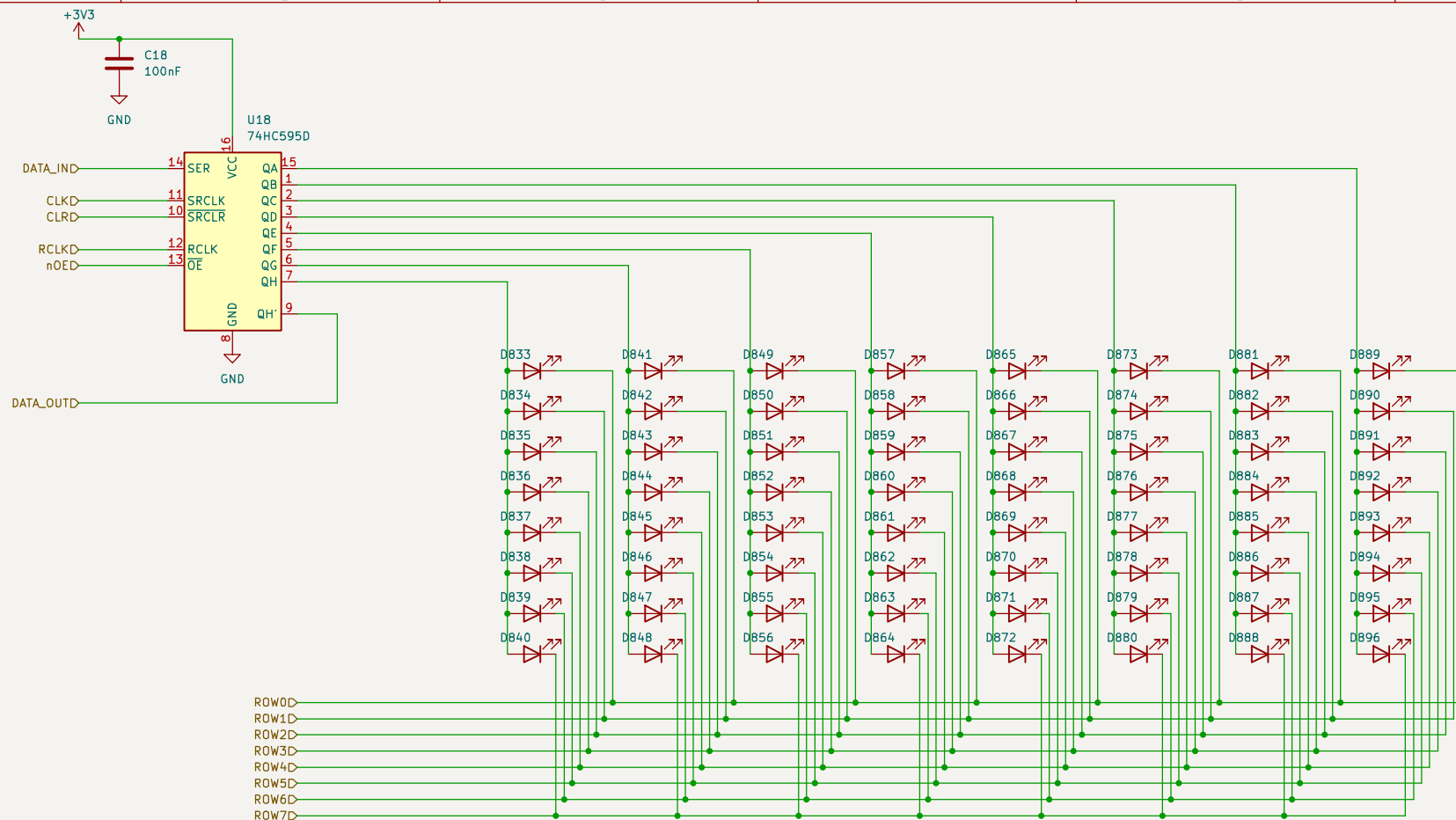
Sheet: /RIGHT/CHAR2/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39





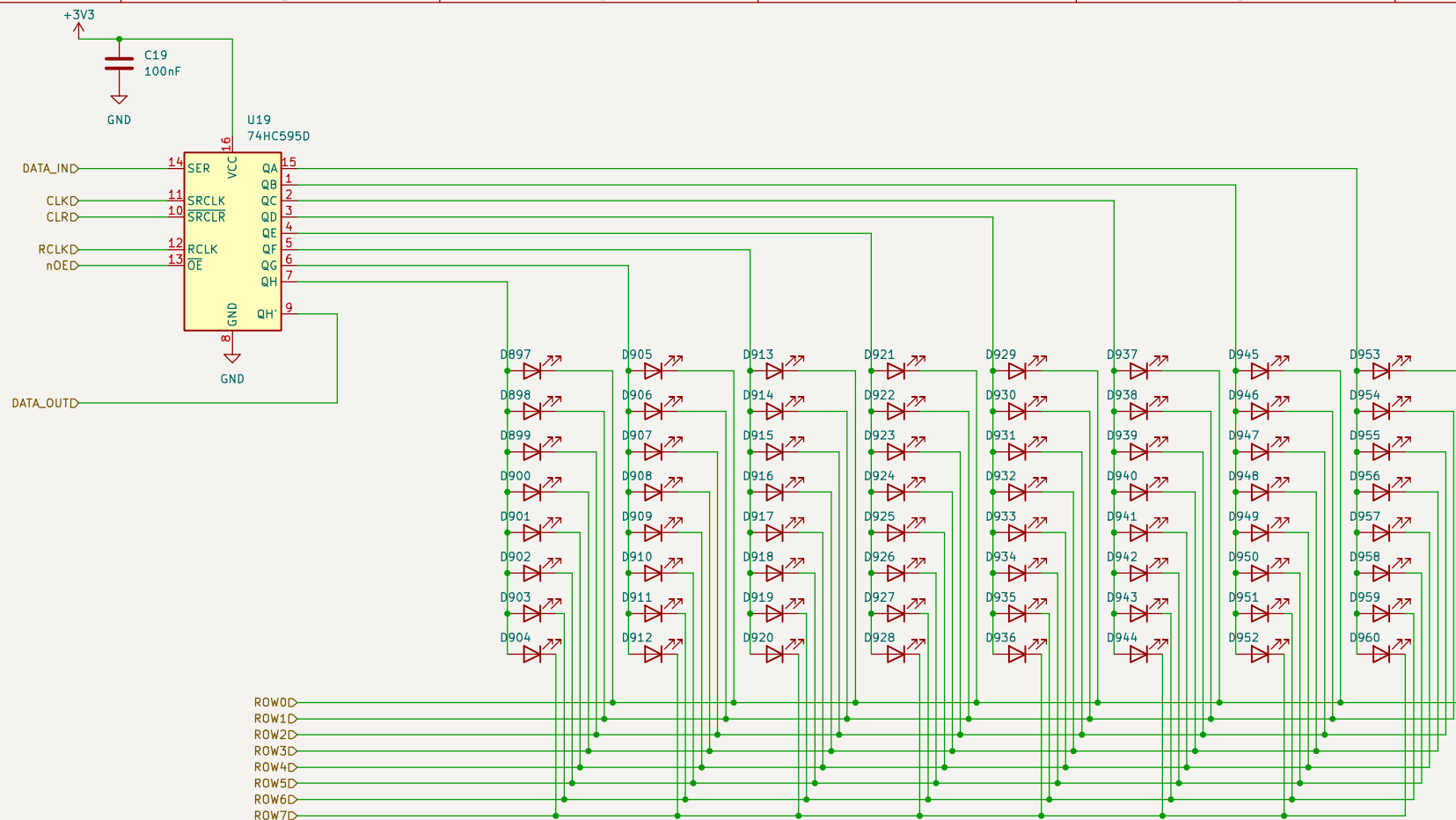
# Ben's Badges

Sheet: /RIGHT/CHAR3/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



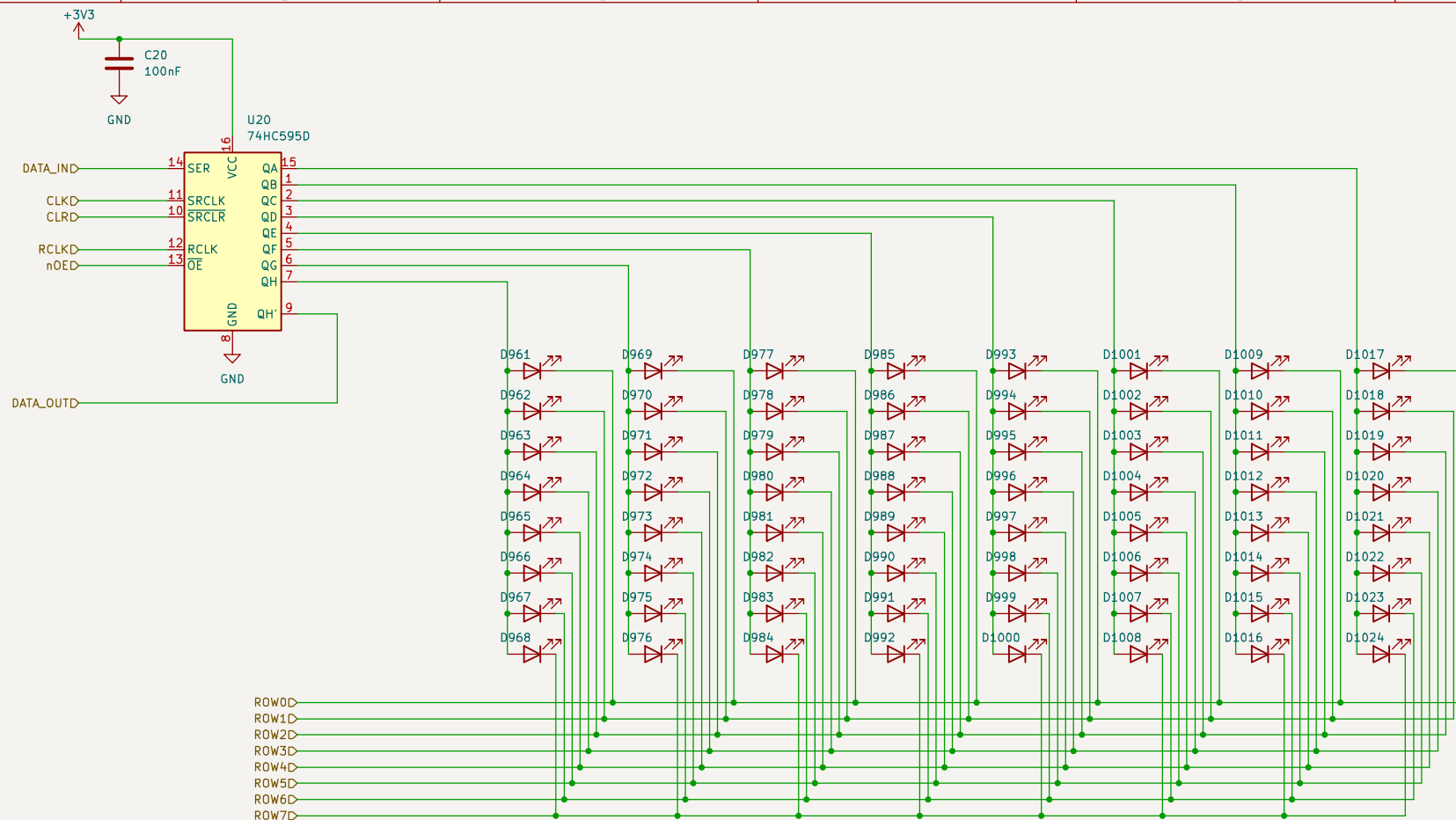
#### Ben's Badges

Sheet: /RIGHT/CHAR4/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



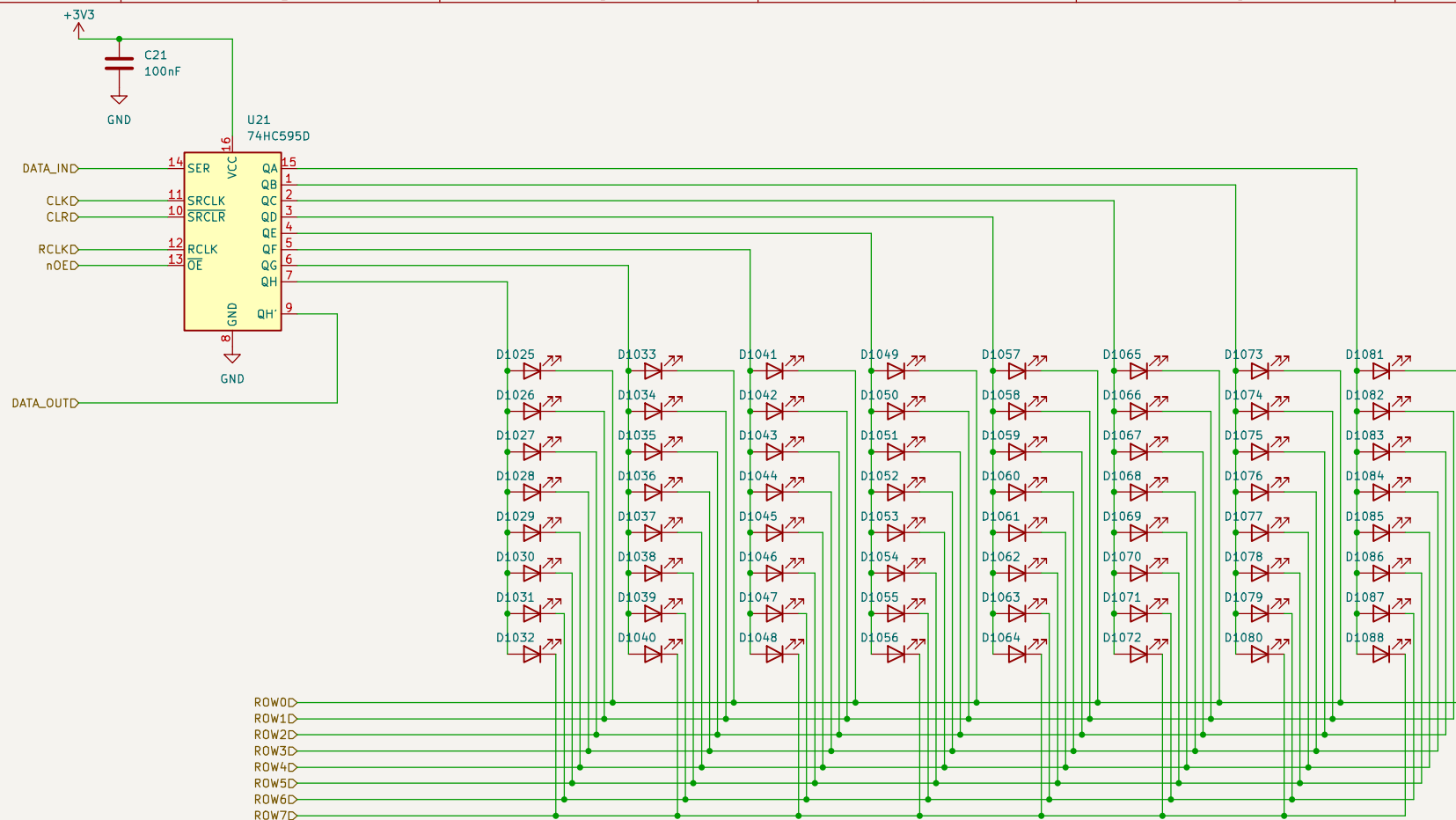
#### Ben's Badges

Sheet: /RIGHT/CHAR5/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



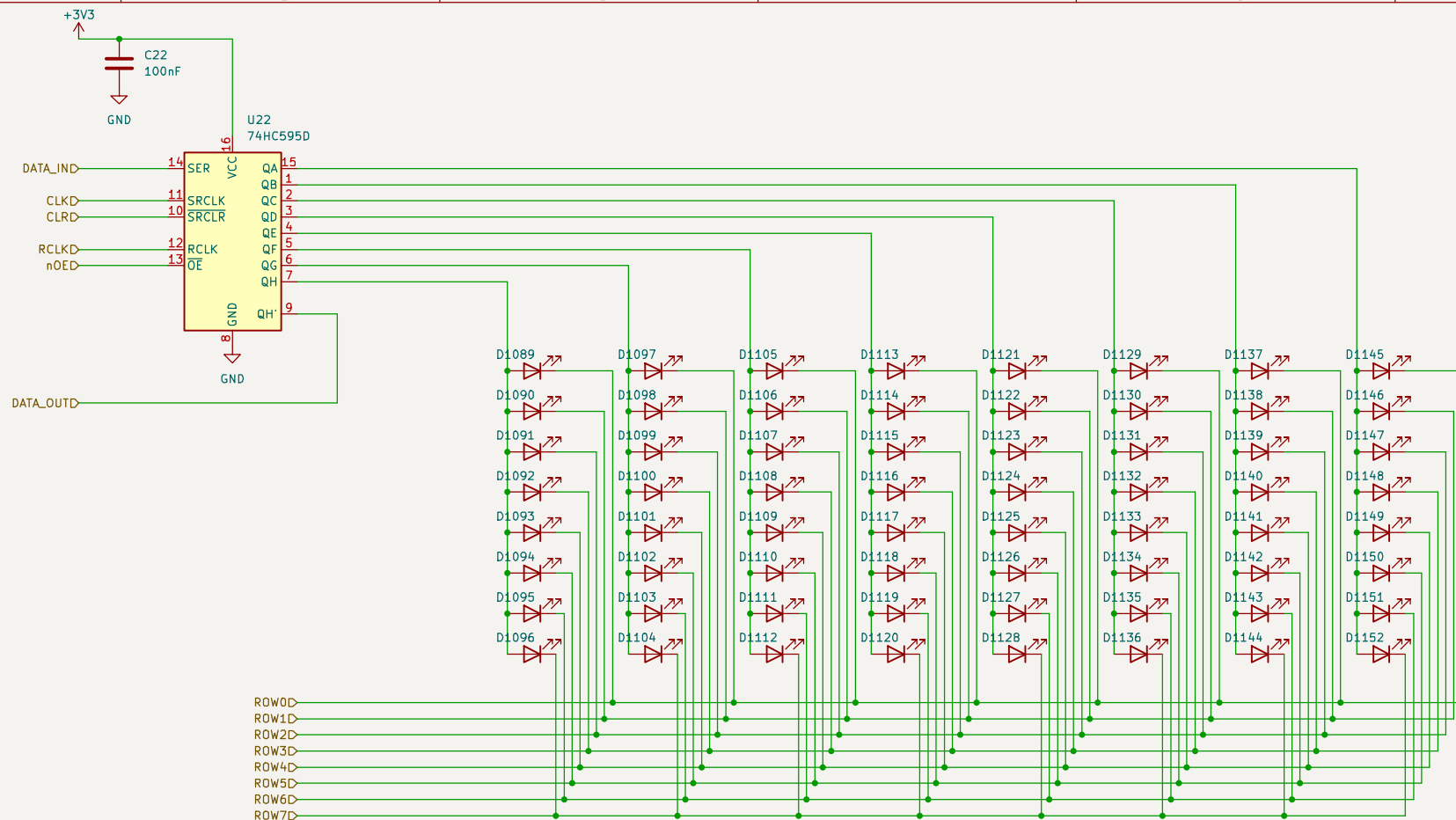
# **Ben's Badges**

Sheet: /RIGHT/CHAR6/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



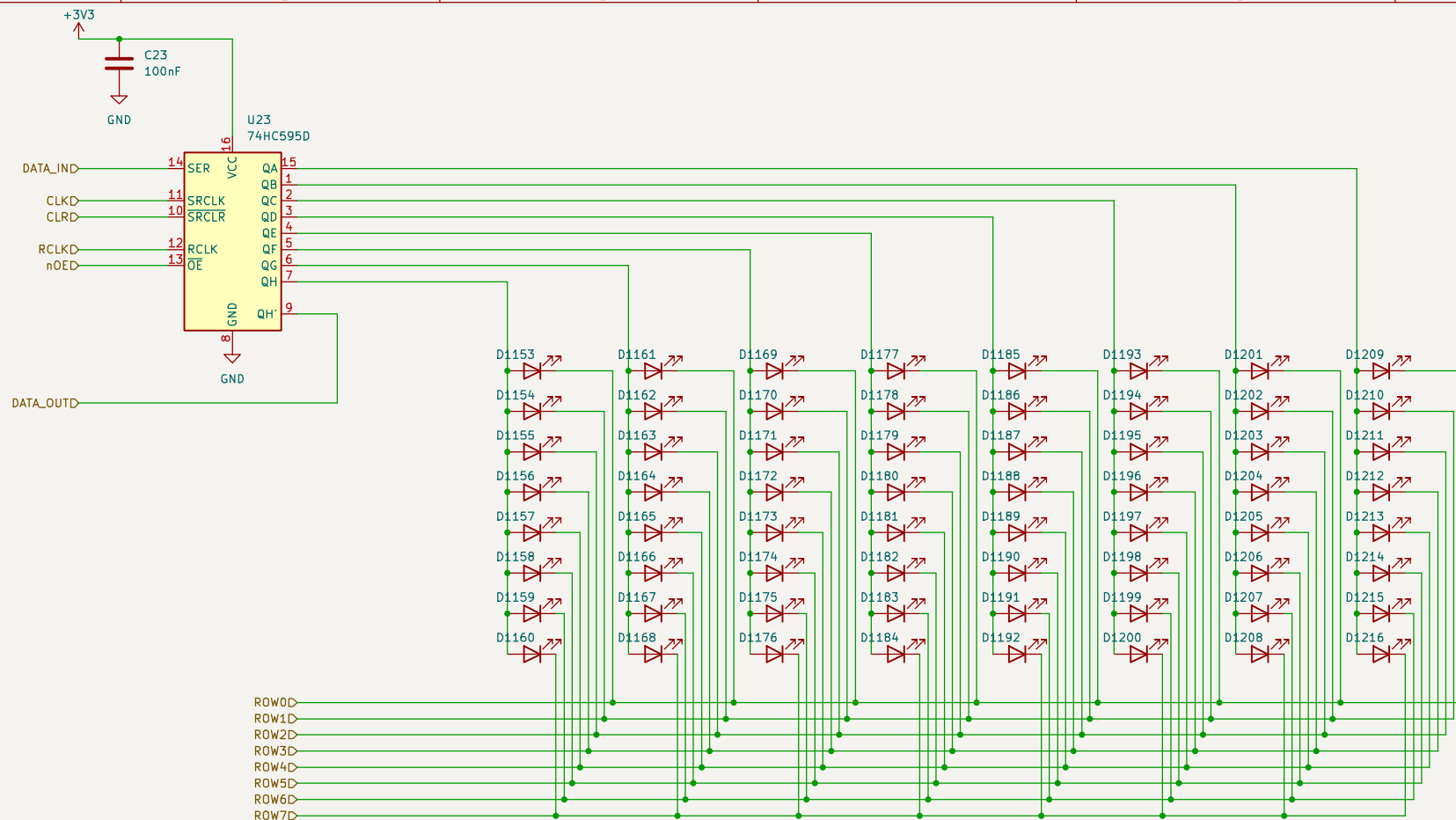
# Ben's Badges

Sheet: /RIGHT/CHAR7/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



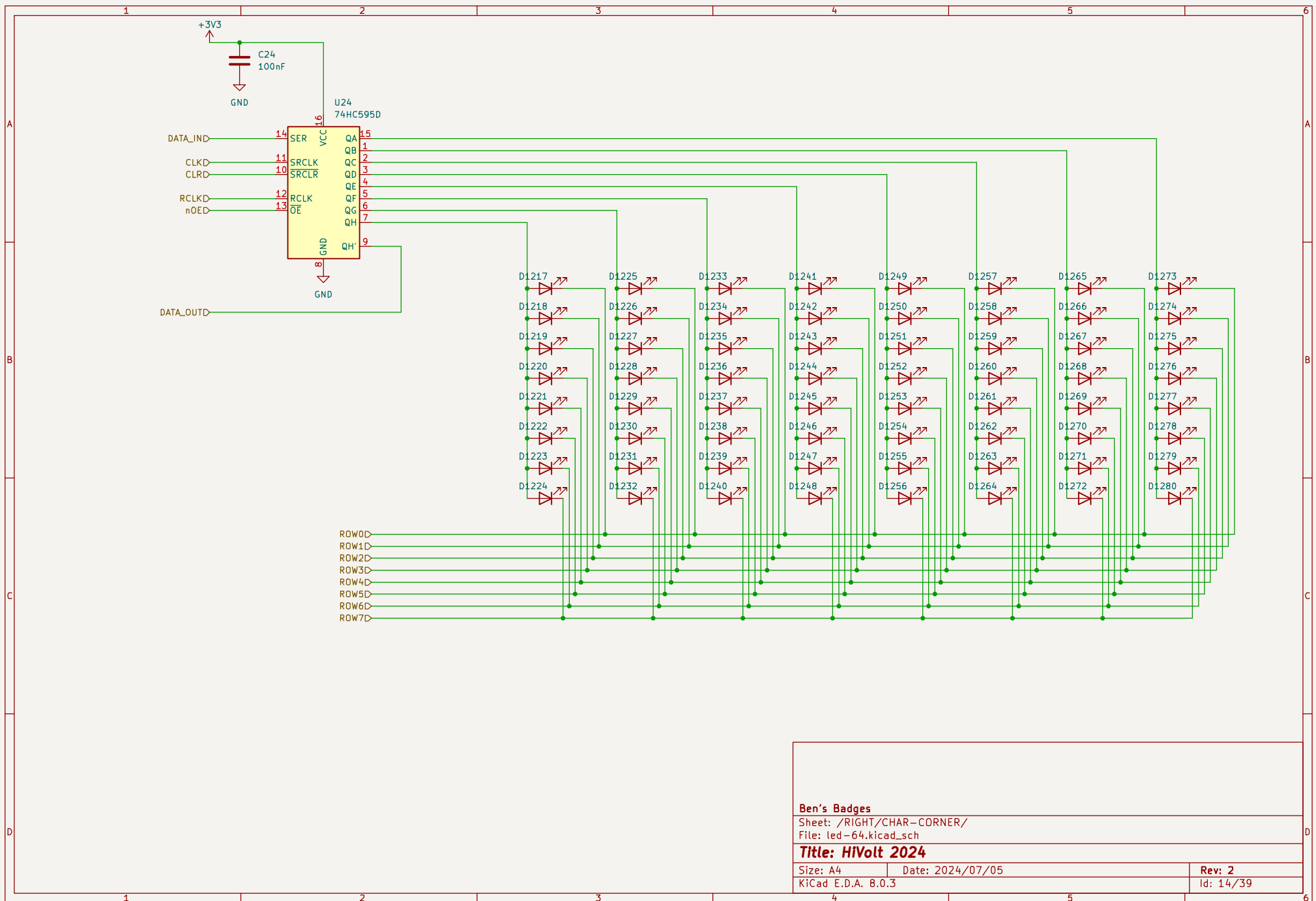
# Ben's Badges

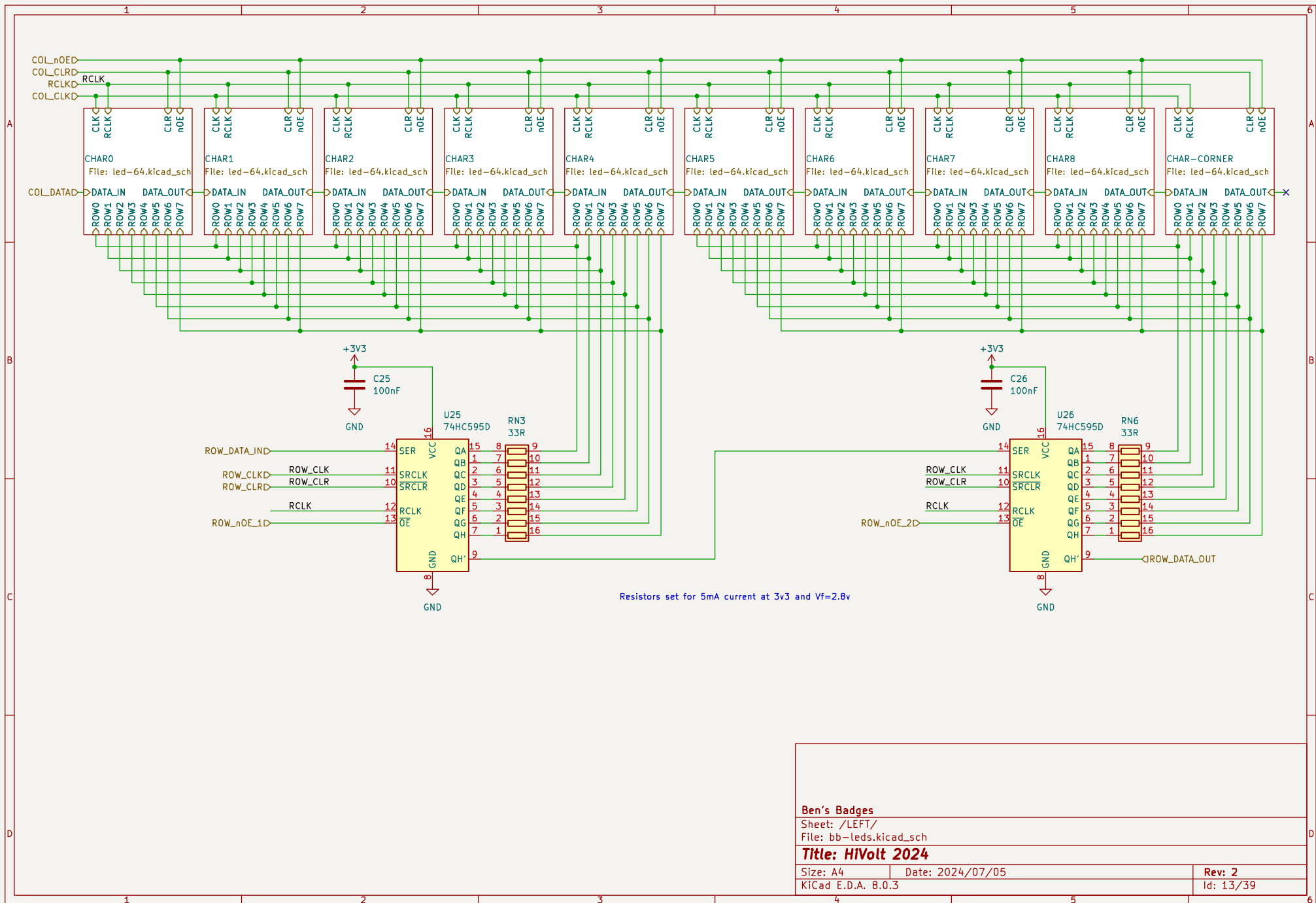
Sheet: /RIGHT/CHARB/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39





Ben's Badges

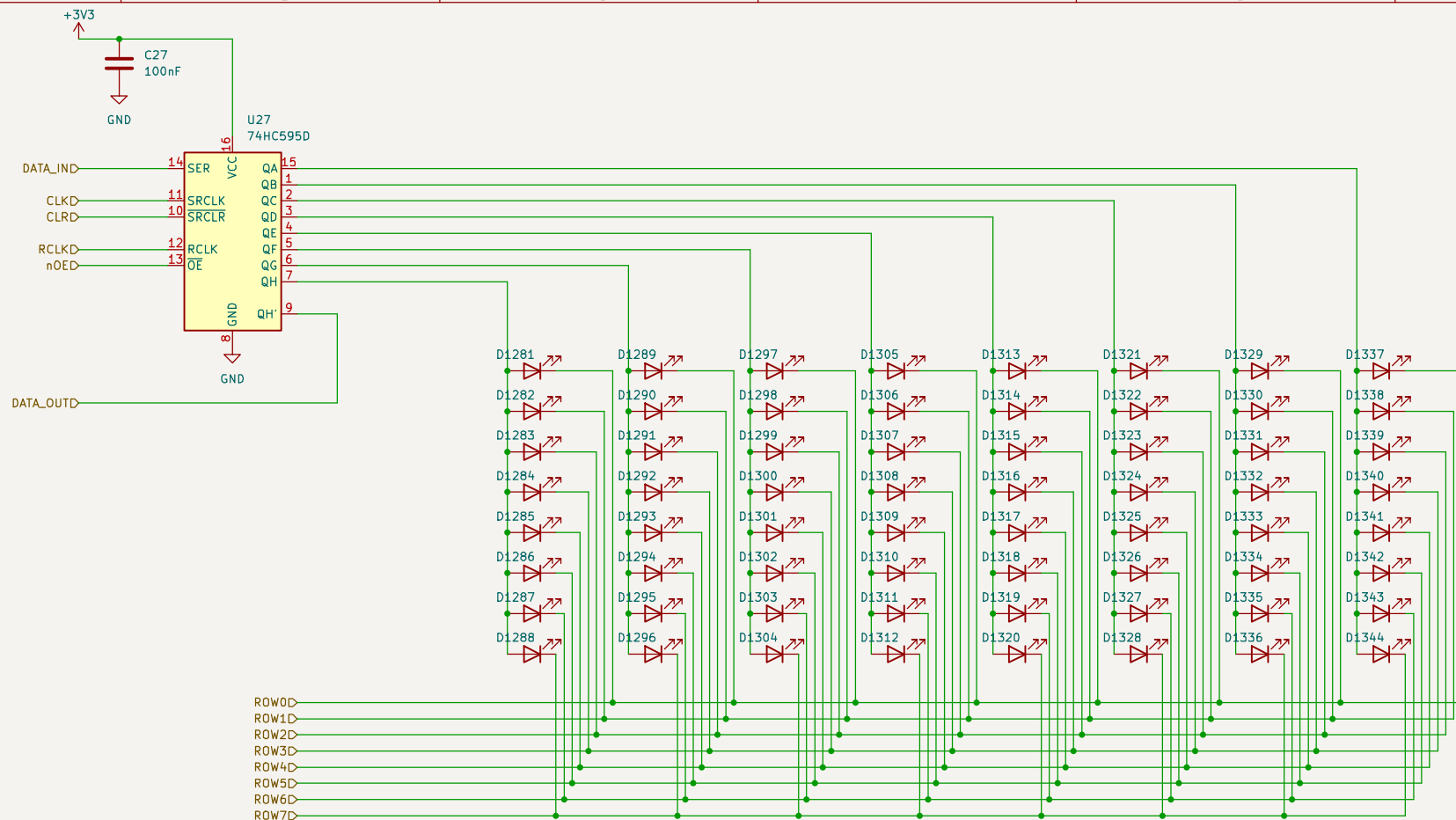
Sheet: /LEFT/  
File: bb-leds.kicad\_sch

Title: HiVolt 2024

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 13/39





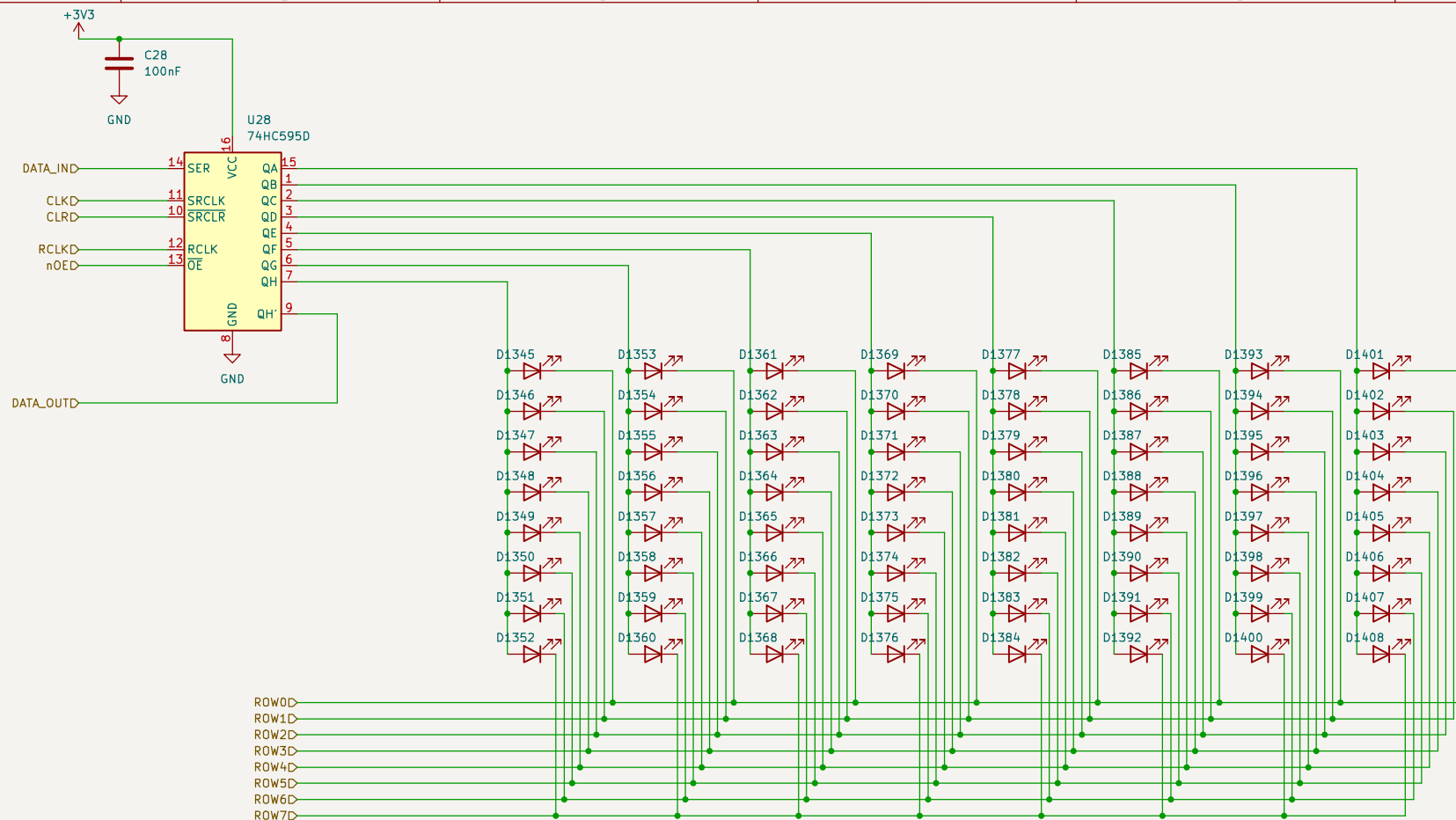
#### Ben's Badges

Sheet: /LEFT/CHAR0/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



# **Ben's Badges**

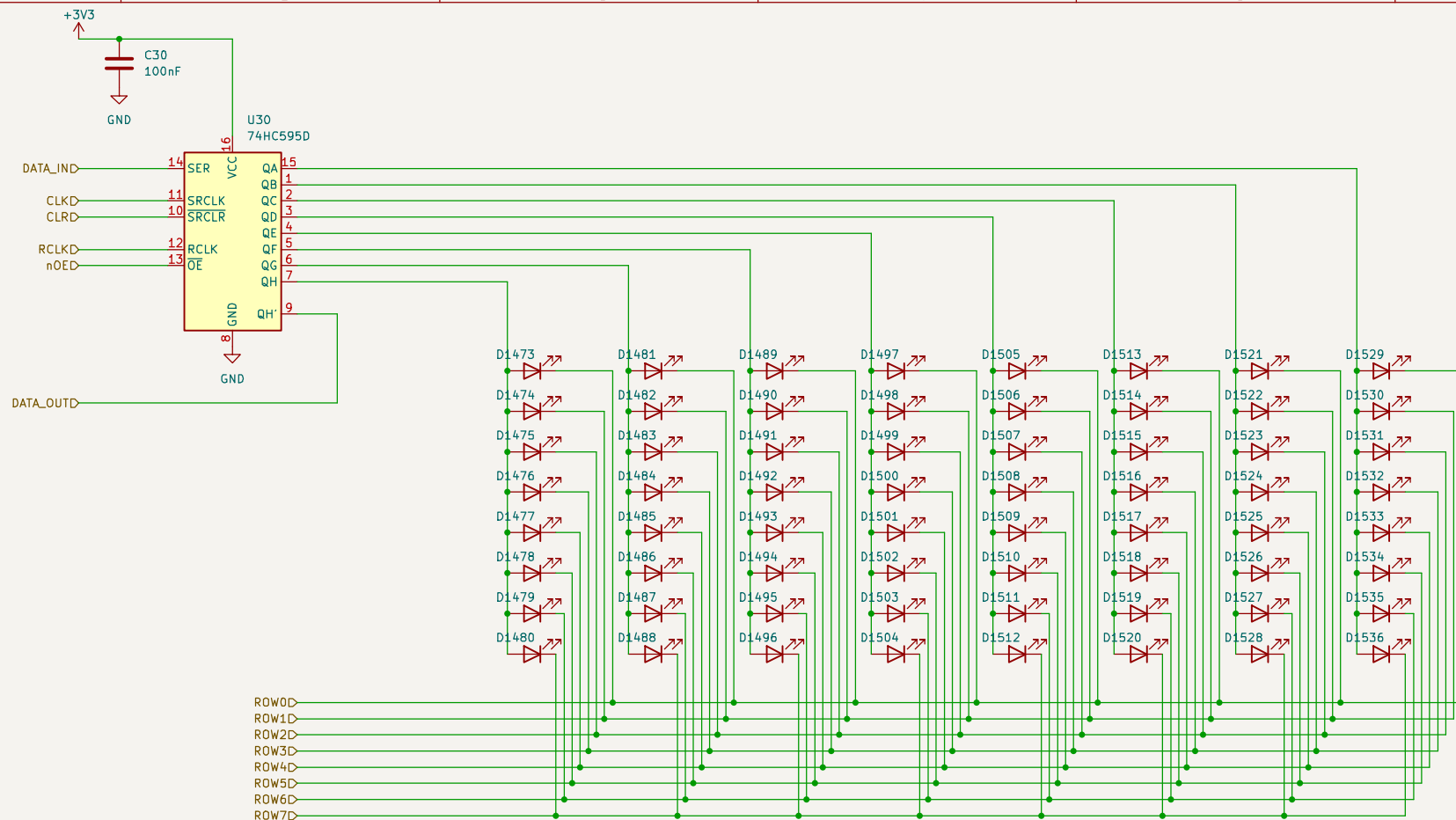
Sheet: /LEFT/CHAR1/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39





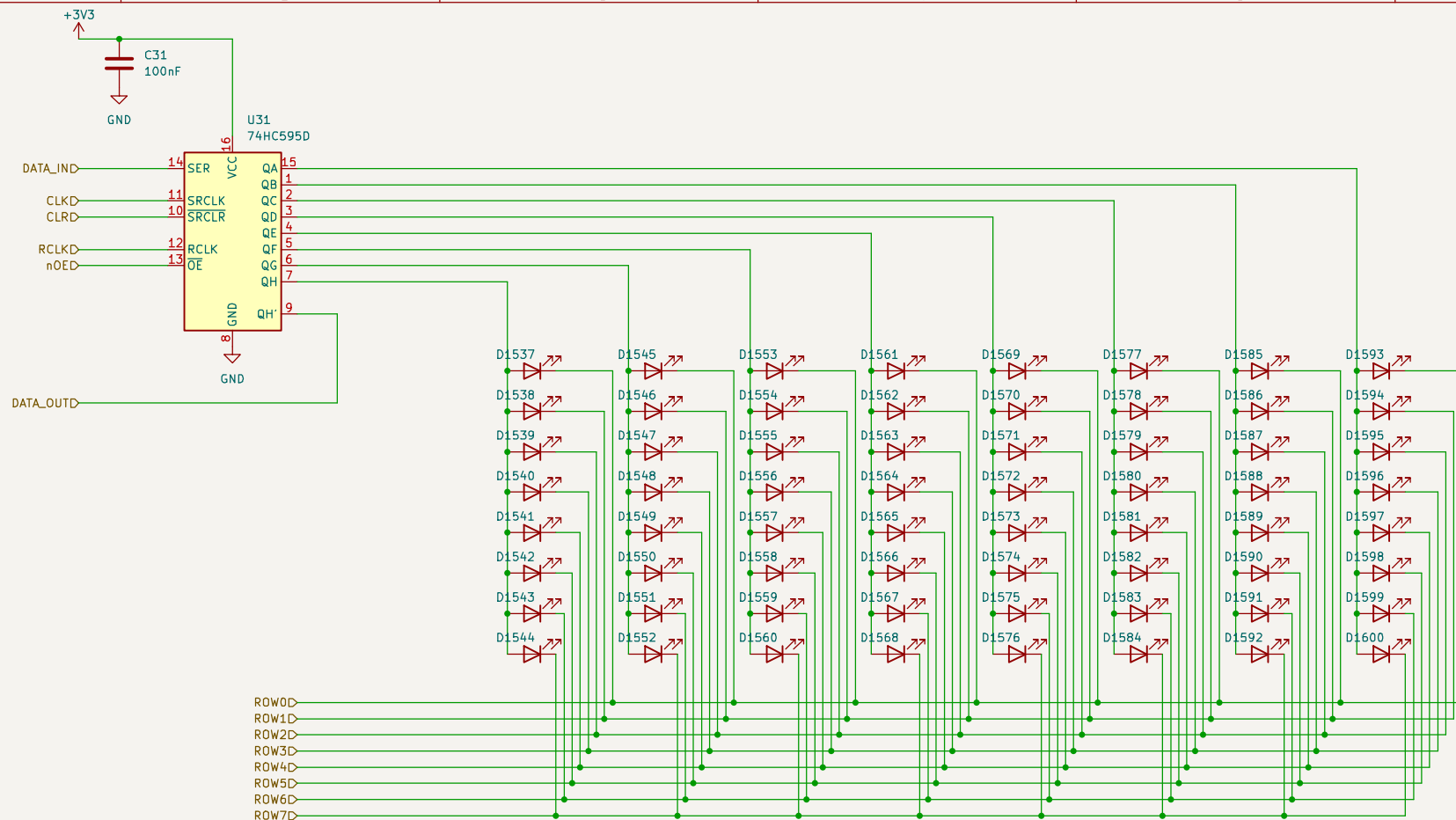
#### Ben's Badges

Sheet: /LEFT/CHAR3/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



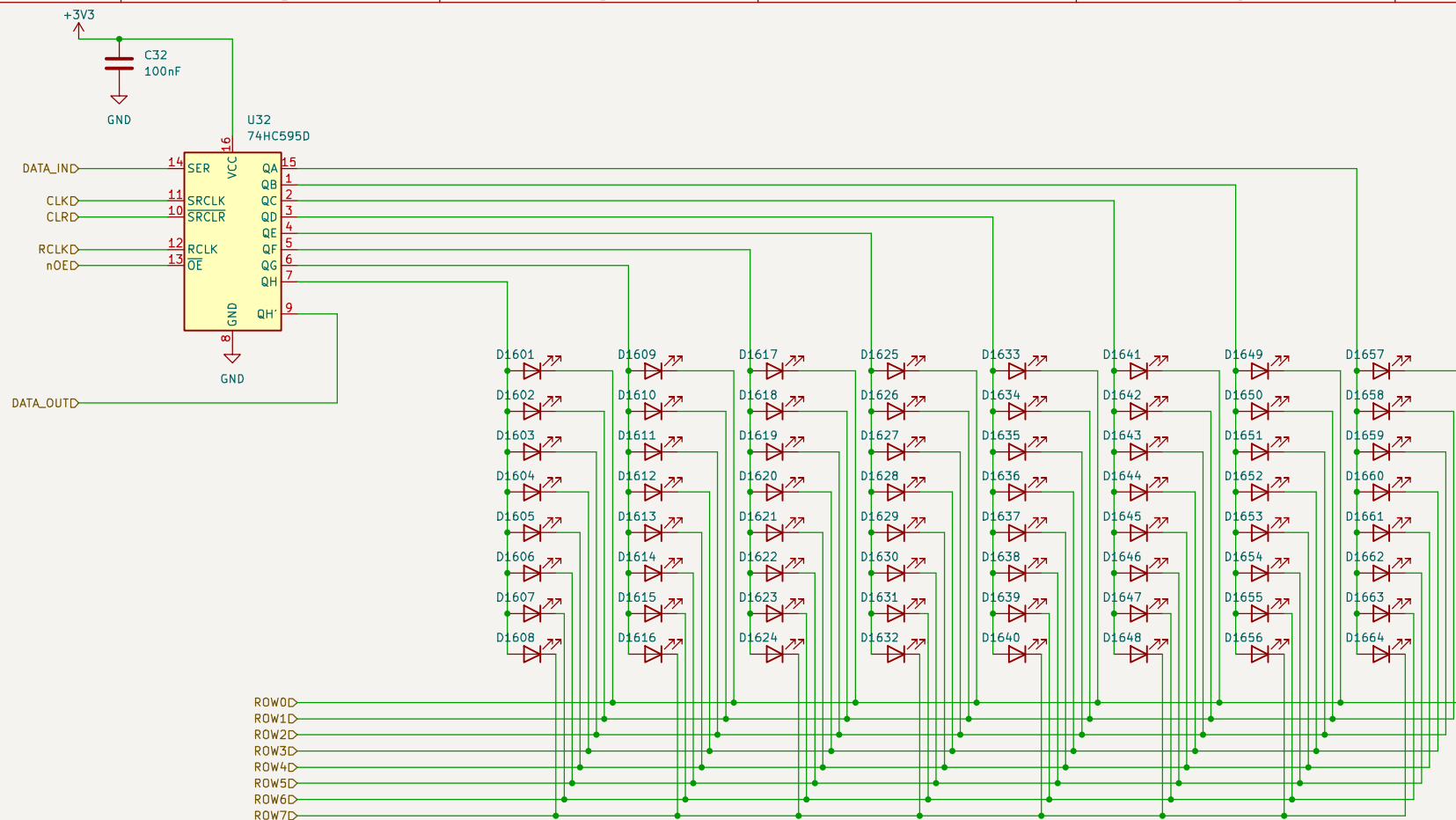
#### Ben's Badges

Sheet: /LEFT/CHAR4/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



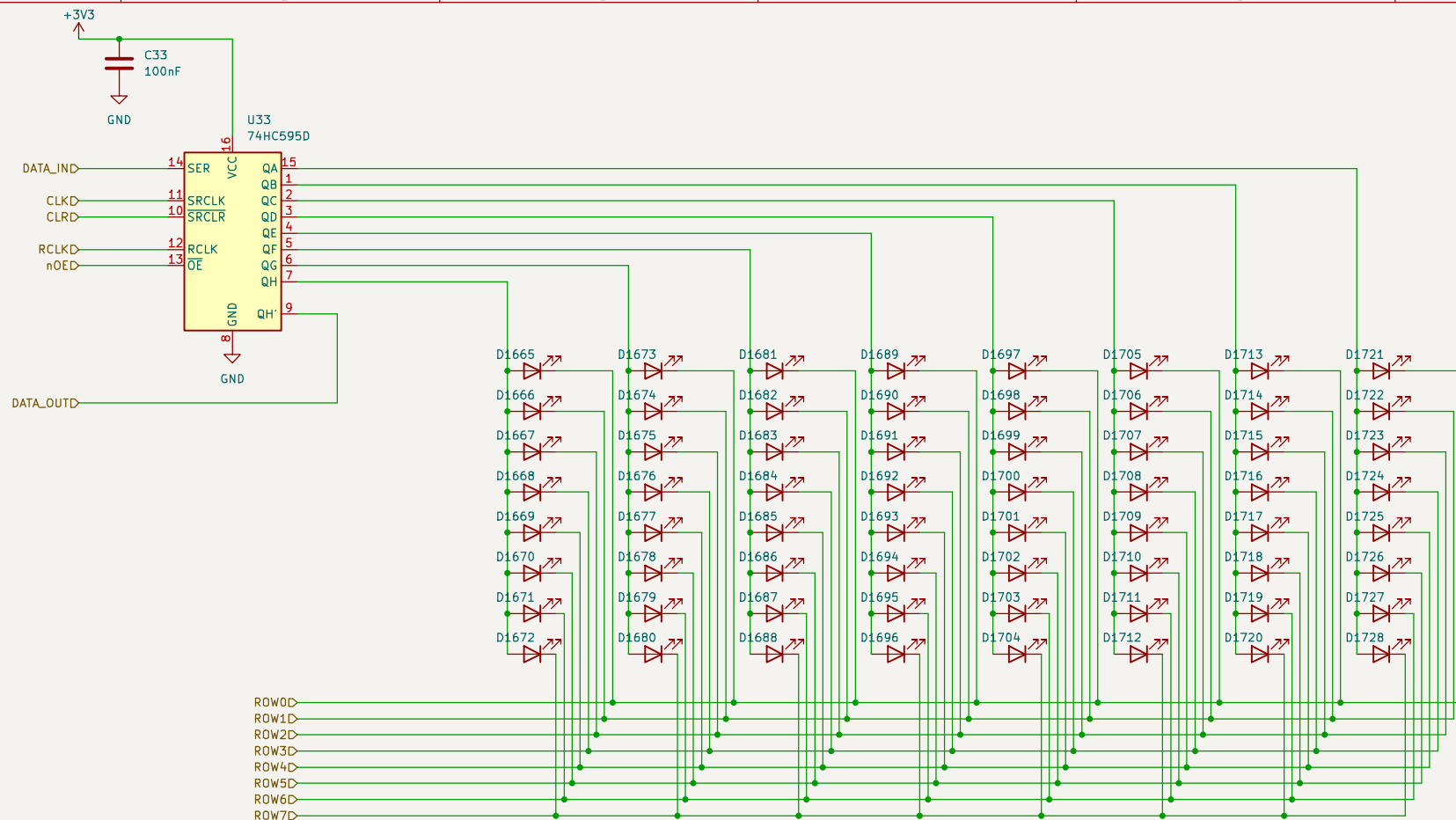
#### Ben's Badges

Sheet: /LEFT/CHAR5/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



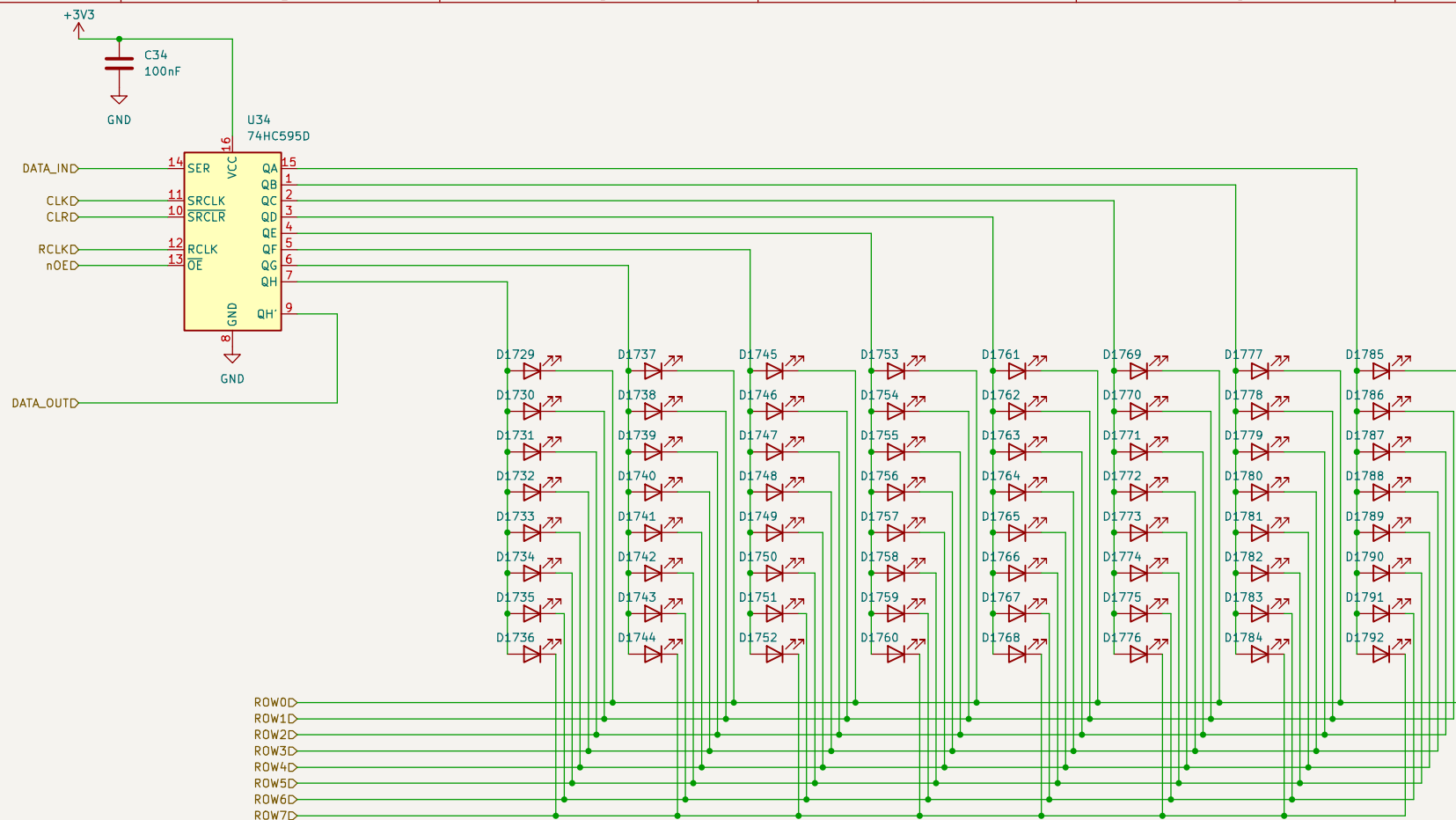
#### Ben's Badges

Sheet: /LEFT/CHAR6/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



# **Ben's Badges**

Sheet: /LEFT/CHAR7/

File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4

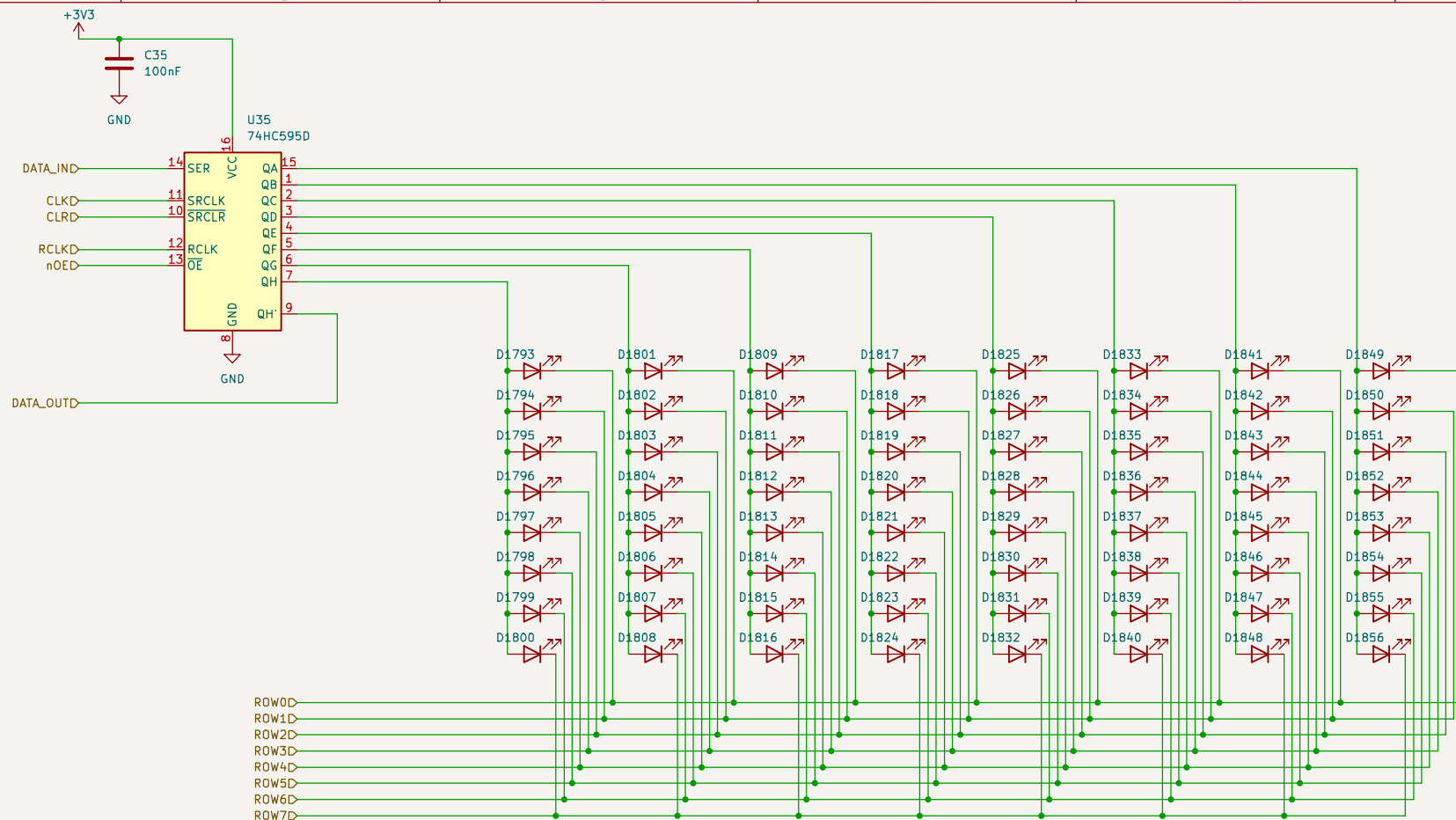
Date: 2024/07/05

Rev: 2

KiCad E.D.A. 8.0.3

Id: 14/39





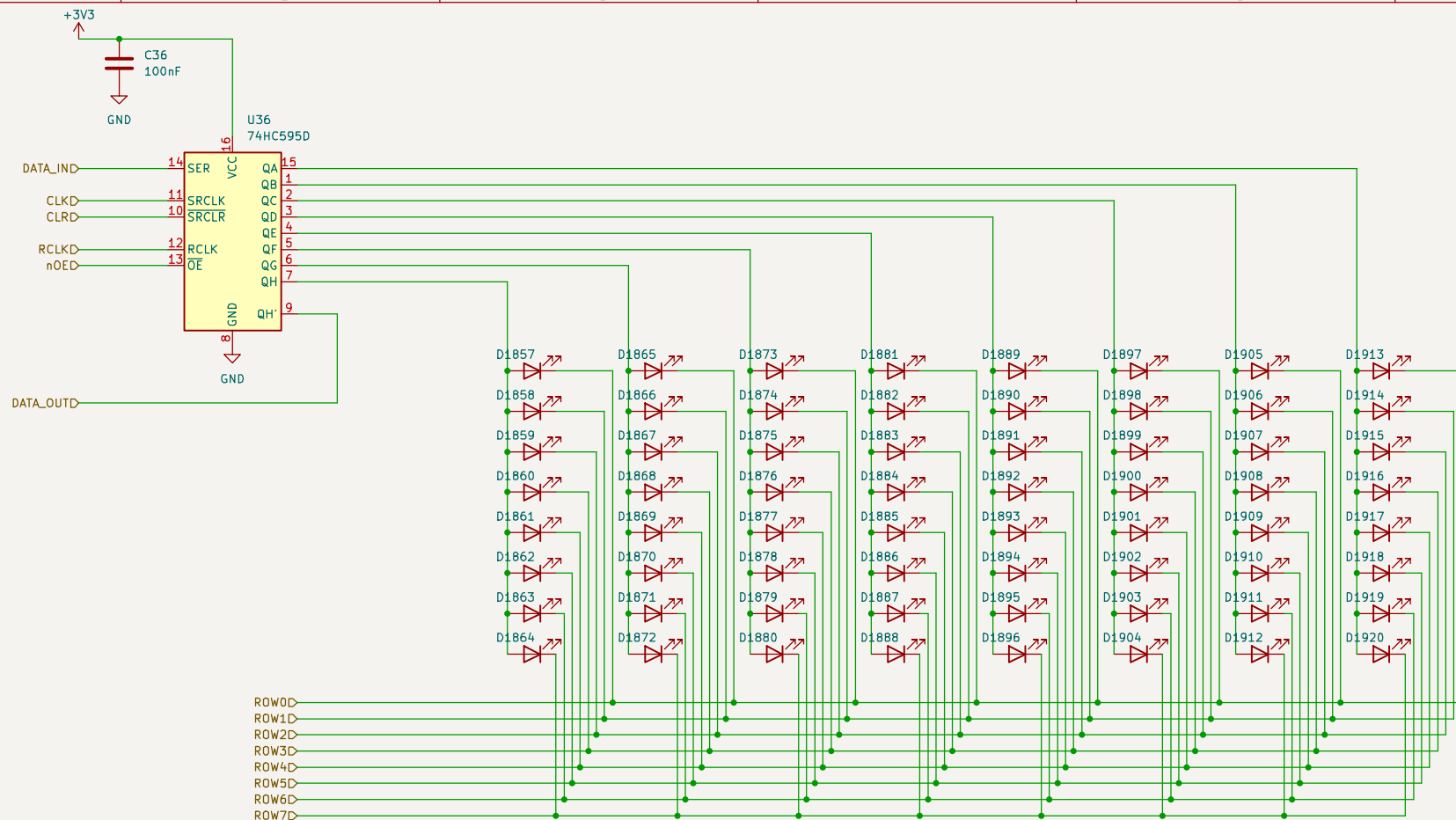
#### Ben's Badges

Sheet: /LEFT/CHAR8/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39



#### Ben's Badges

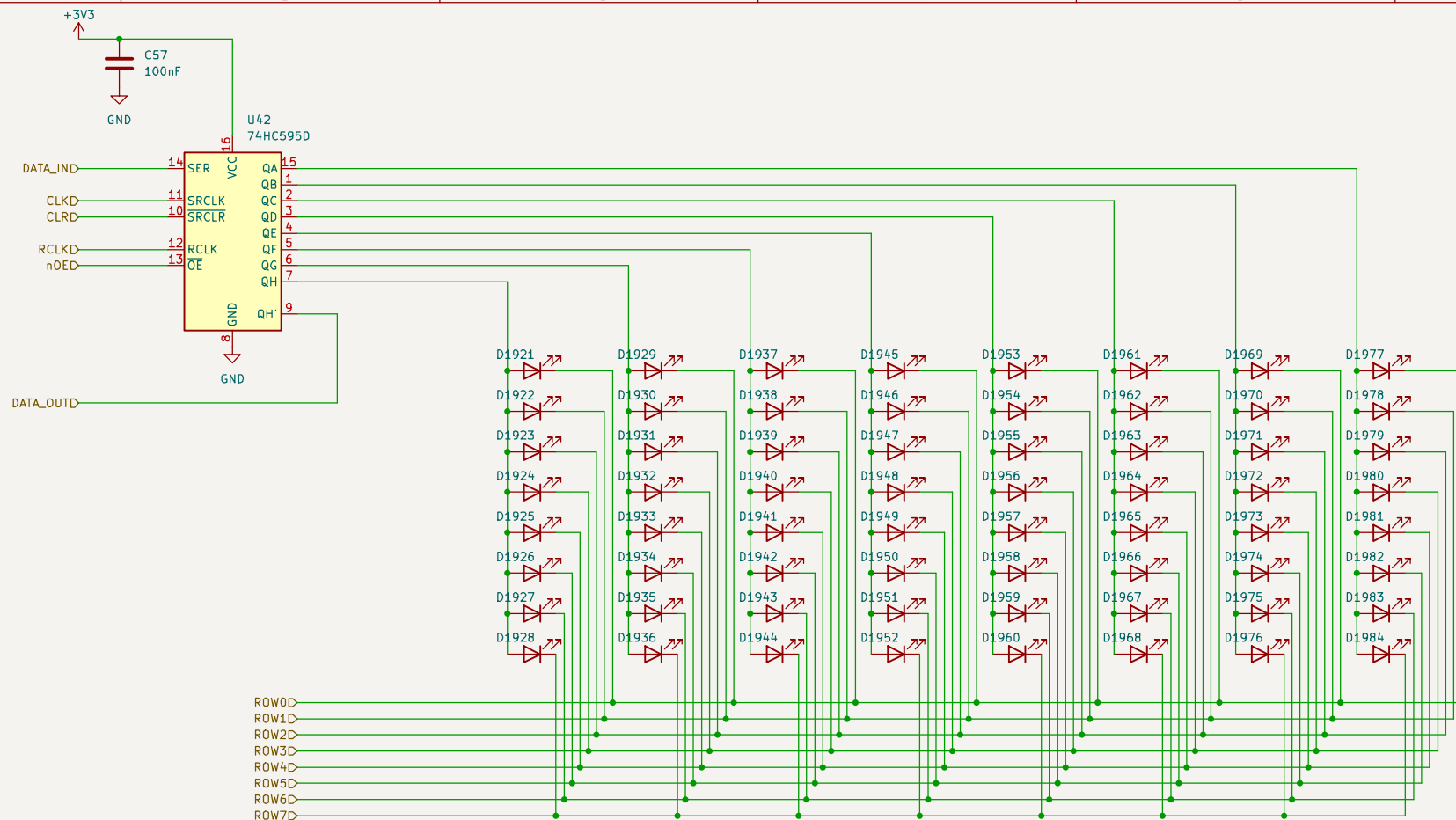
Sheet: /LEFT/CHAR-CORNER/  
File: led-64.kicad\_sch

**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 14/39

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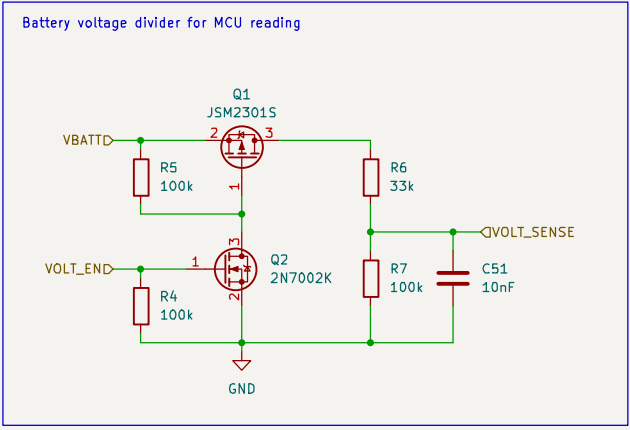
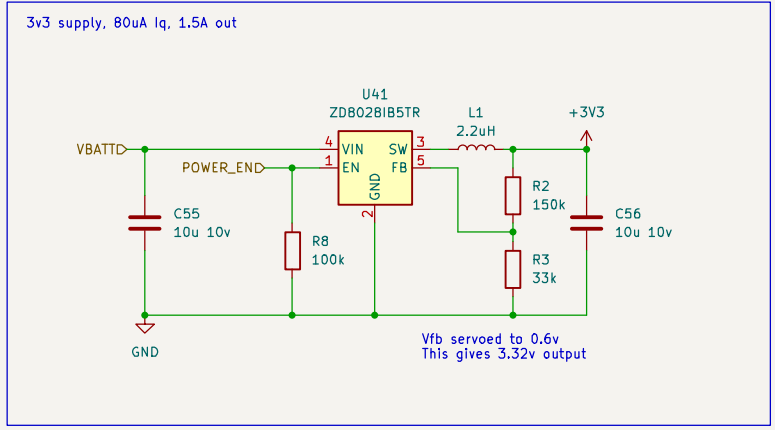
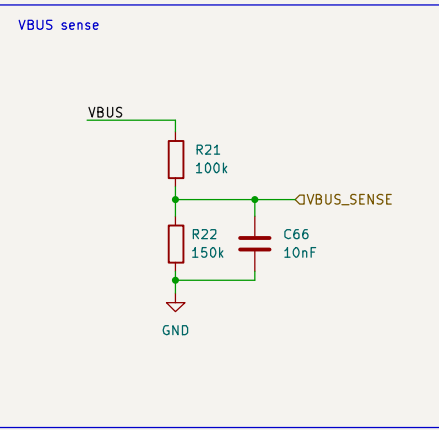
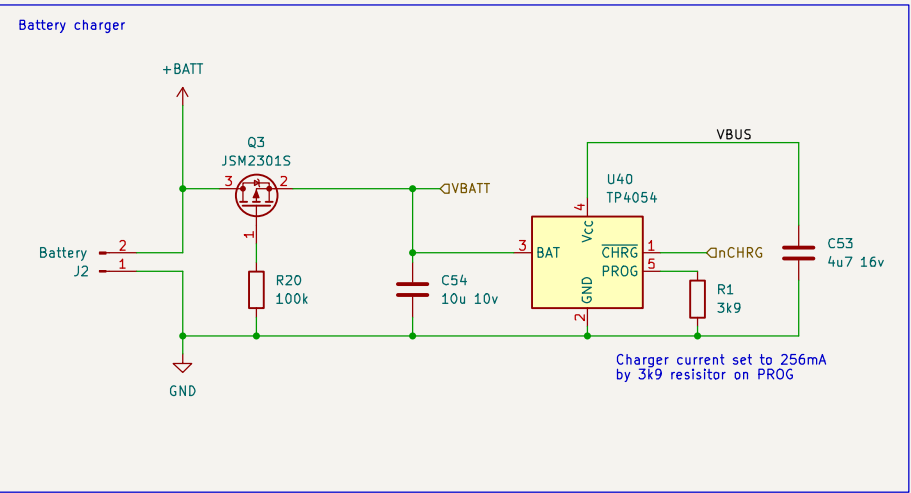
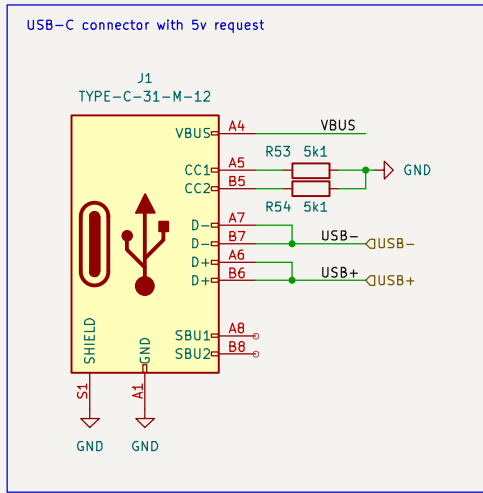
#### Ben's Badges

Sheet: /Bolt/Bolt LEDs/  
File: led-64.kicad\_sch

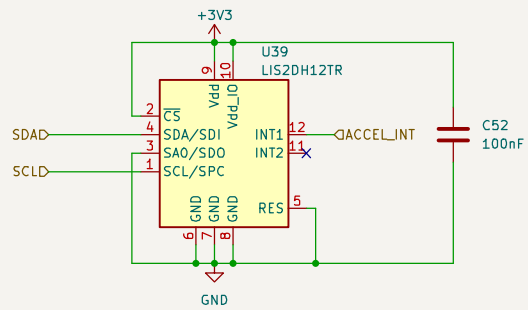
**Title: HiVolt 2024**

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

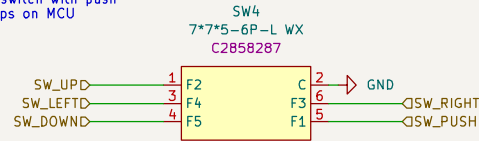
Rev: 2  
Id: 14/39



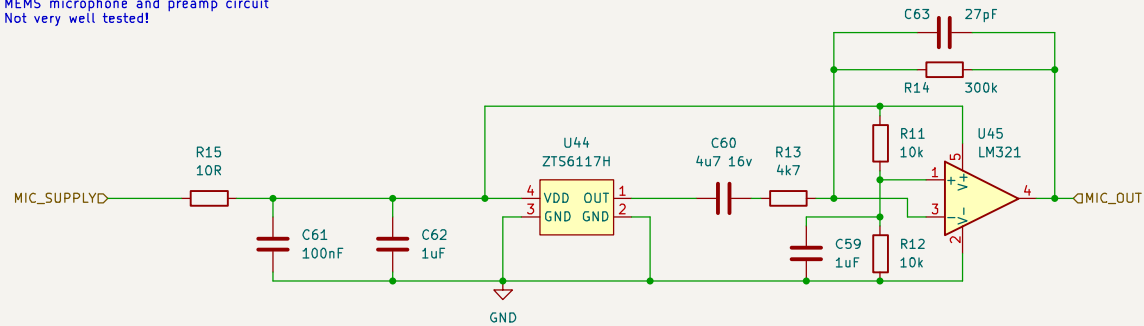
3 axis accelerometer  
I2C pullups on main sheet  
Interrupt pullup in MCU



4 way switch with push  
Pull-ups on MCU



MEMS microphone and preamp circuit  
Not very well tested!



Ben's Badges

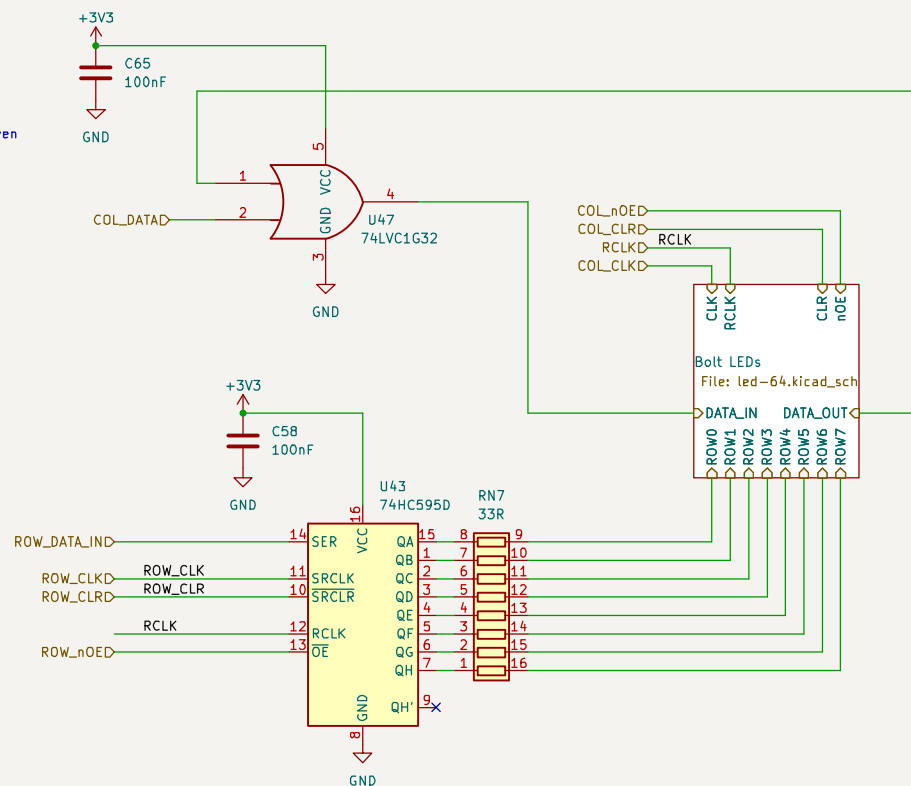
Sheet: /Input/  
File: input.kicad\_sch

Title: HiVolt 2024

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 37/39

Recycle the column drive every 8 clocks  
Use CLR to empty. This is needed as the  
big arrays have 40 columns and are driven  
by the same clock.



# Ben's Badges

Sheet: /Bolt/  
File: bolt.kicad\_sch

## Title: HiVolt 2024

Size: A4 Date: 2024/07/05  
KiCad E.D.A. 8.0.3

Rev: 2  
Id: 38/39