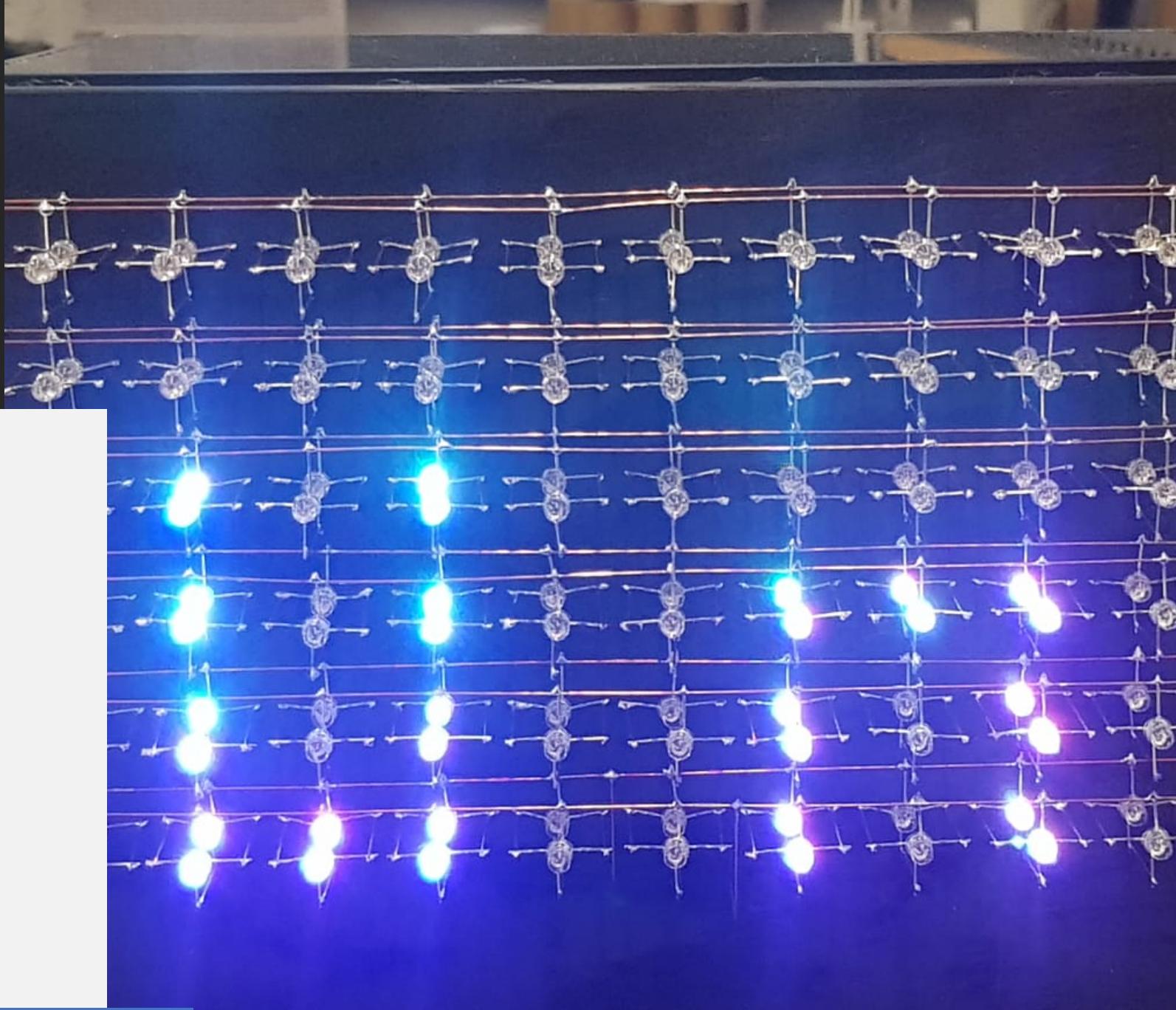


# 2 x 6 x 12 LED RGB Quader

Joey Zgraggen, Moritz Würth, Viktor Gsteiger

10904-01: Computer Architecture and  
Operating Systems

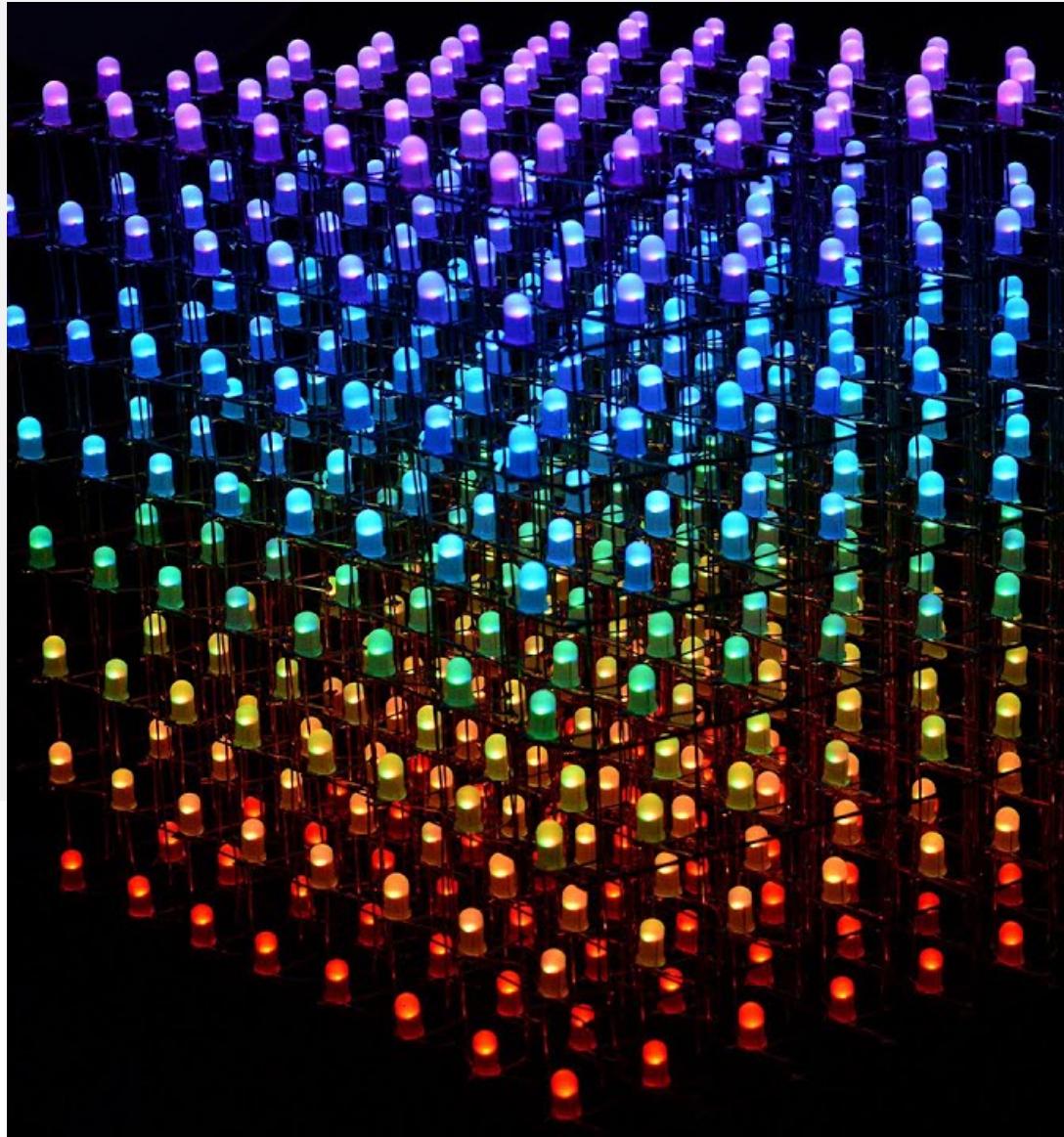
20.01.2020





# Einführung

- Grundidee : RGB-LED Cube
- Eigene Effekte
- Selbst geschriebener Code
- Einfach erweiterbar



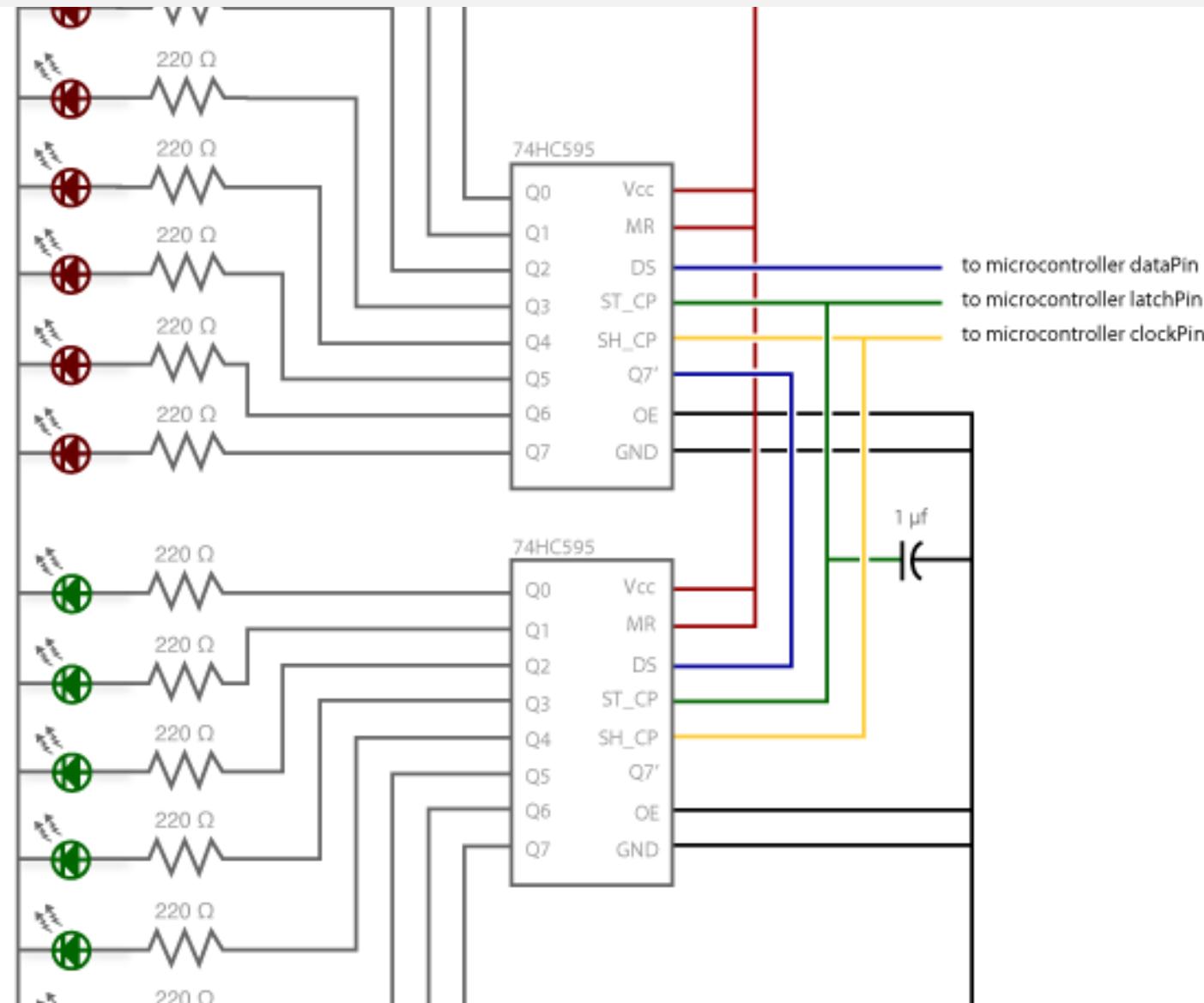
Idee



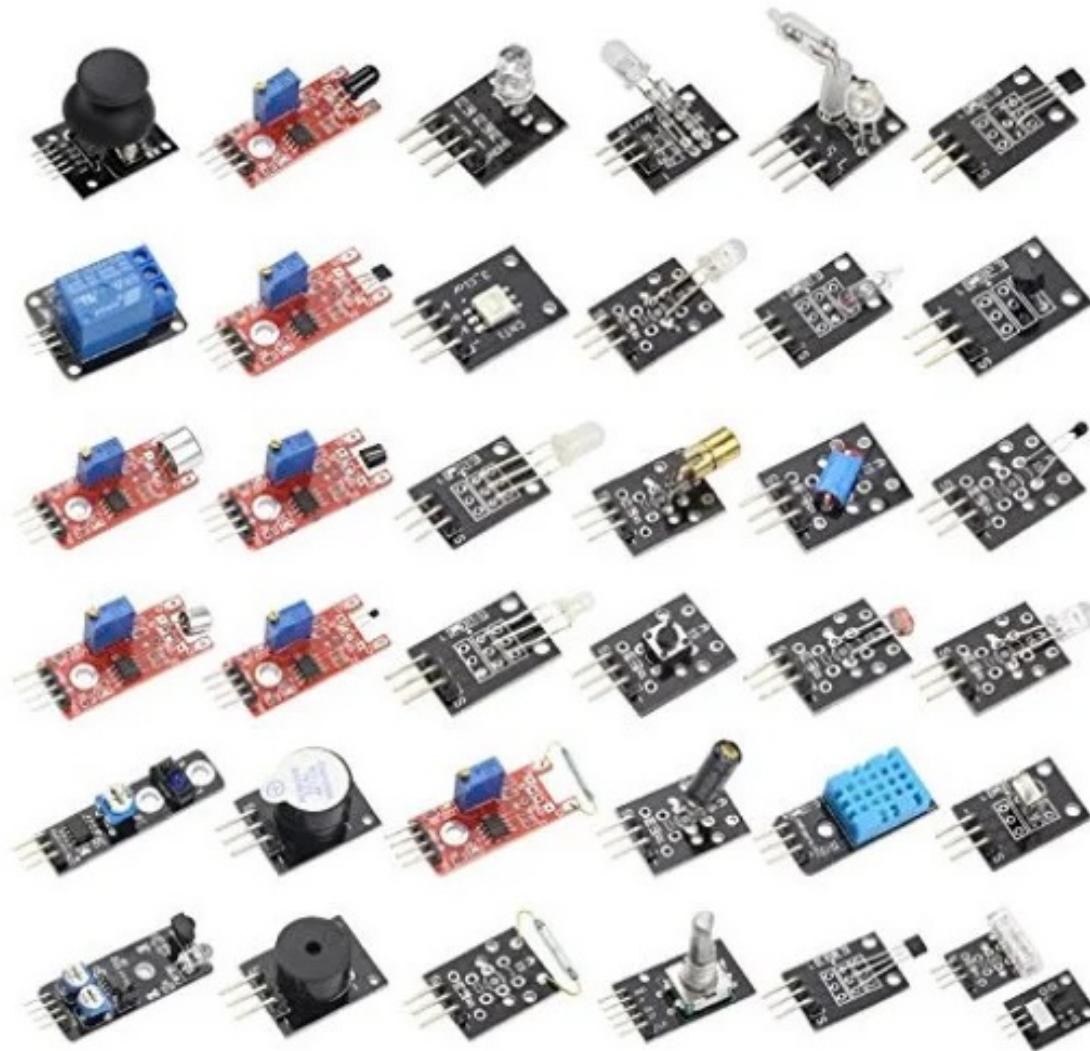


# Hintergrund

- Idee
- Lösung im Code
- Box-Design
- Nicht nur Effekte



# SPI und 74hc595

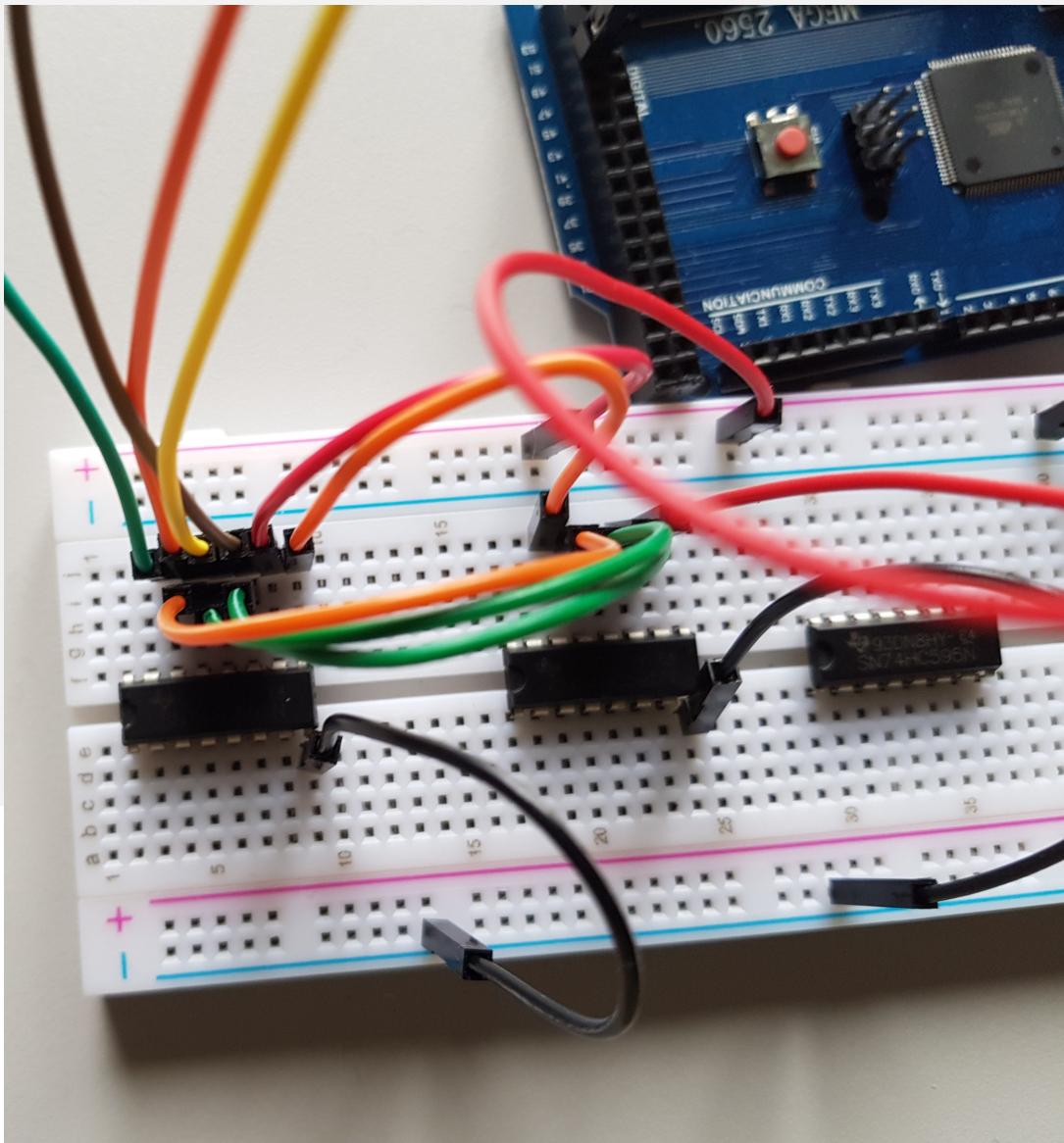


# Sensoren



# Implementation

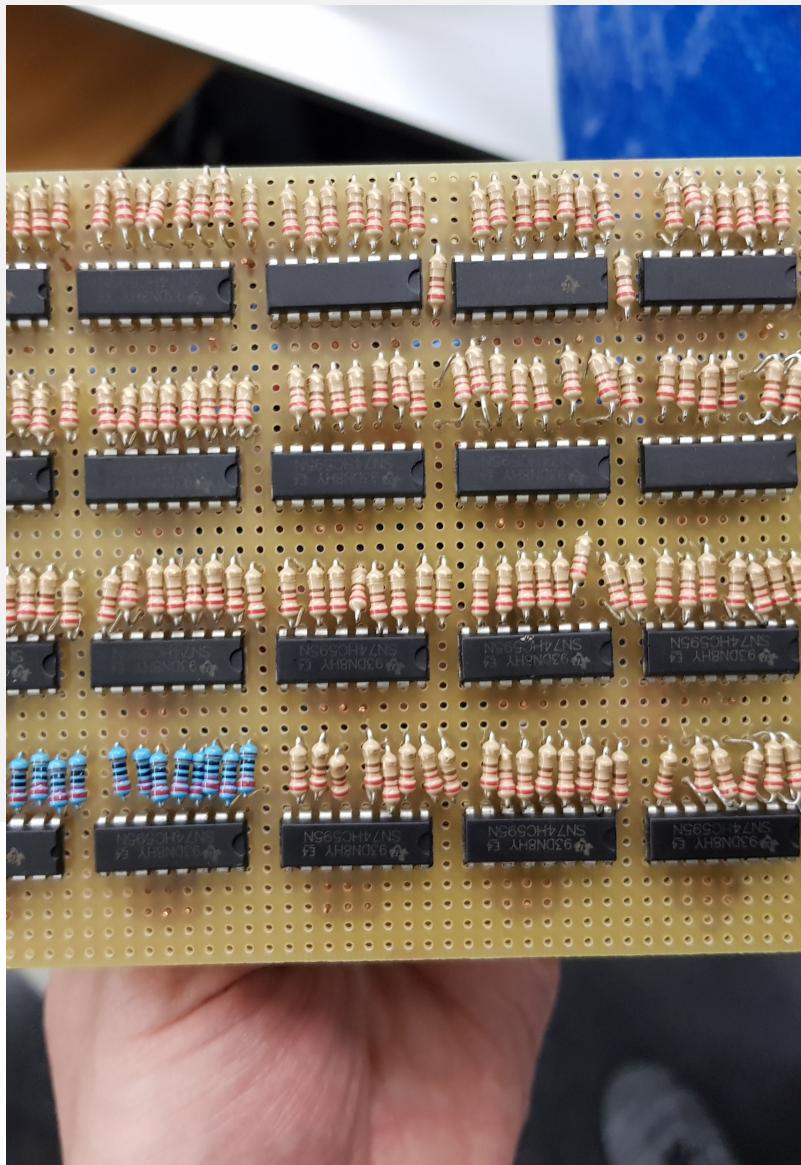
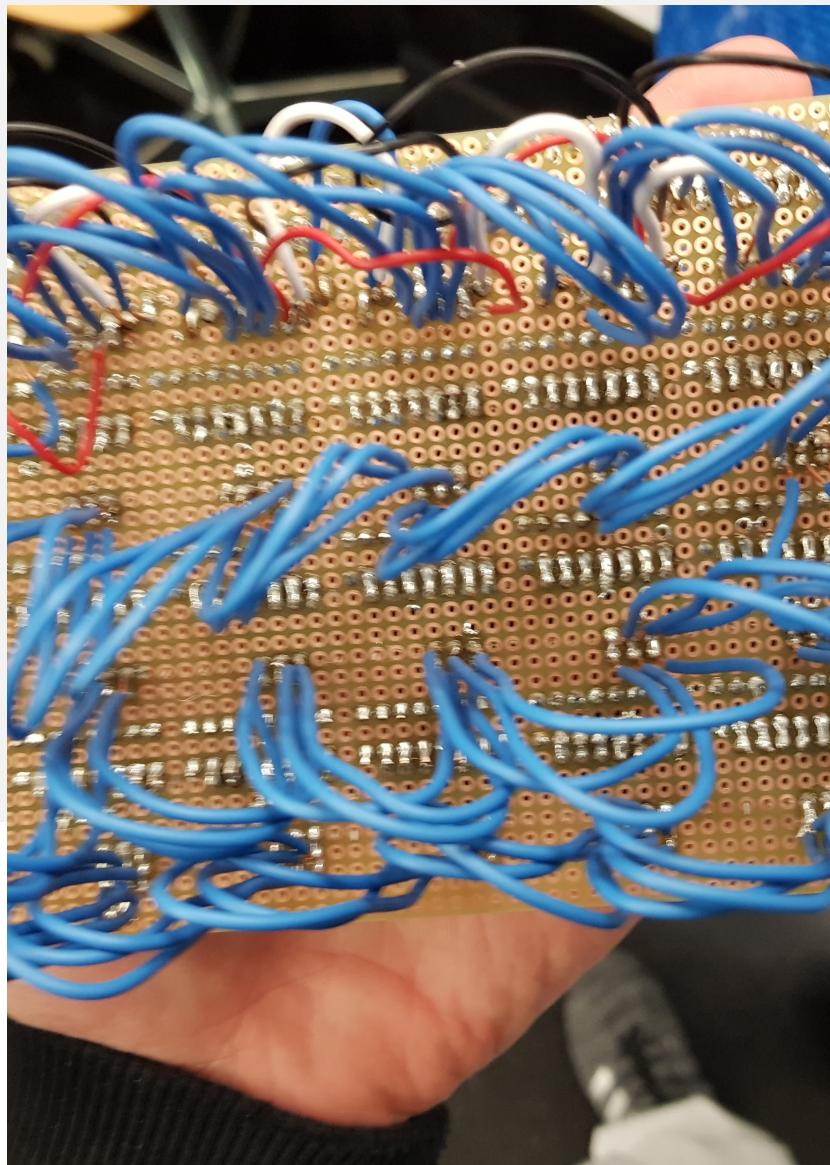
- Materialtest
- Schablone
- Zwei Platinen
- Plexiglas Haube (durchsichtig)



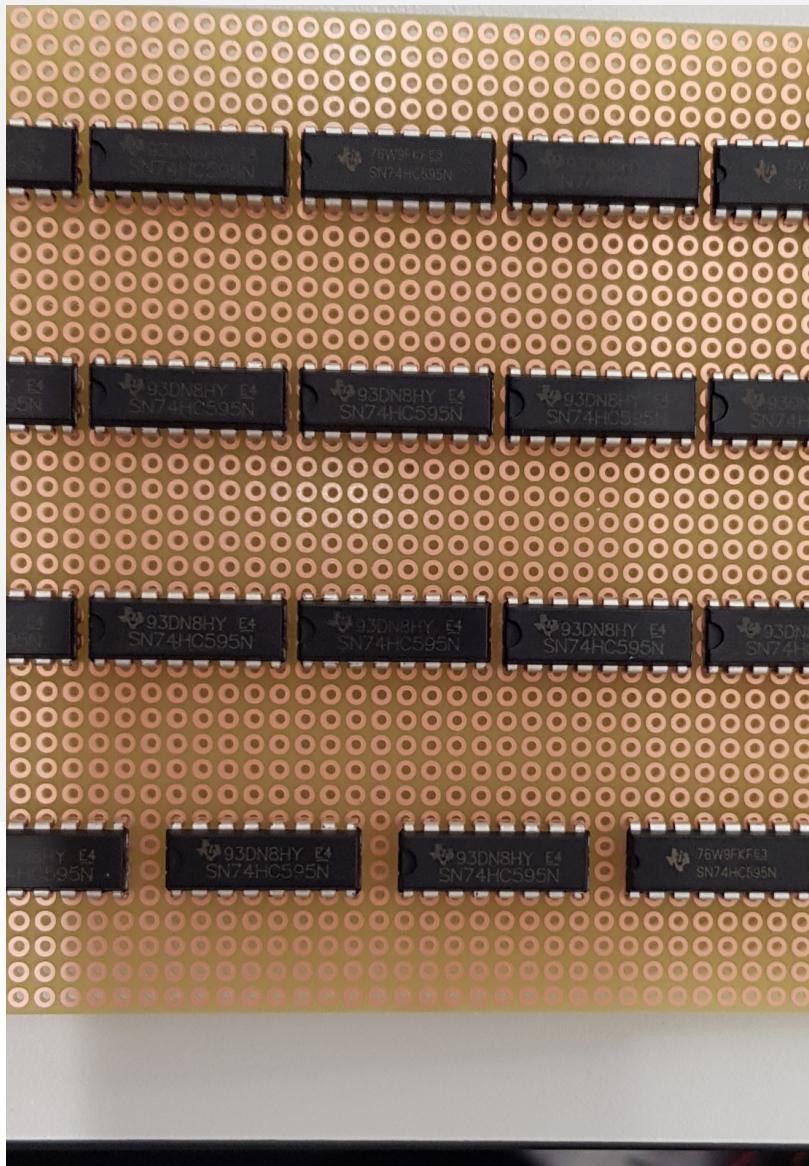
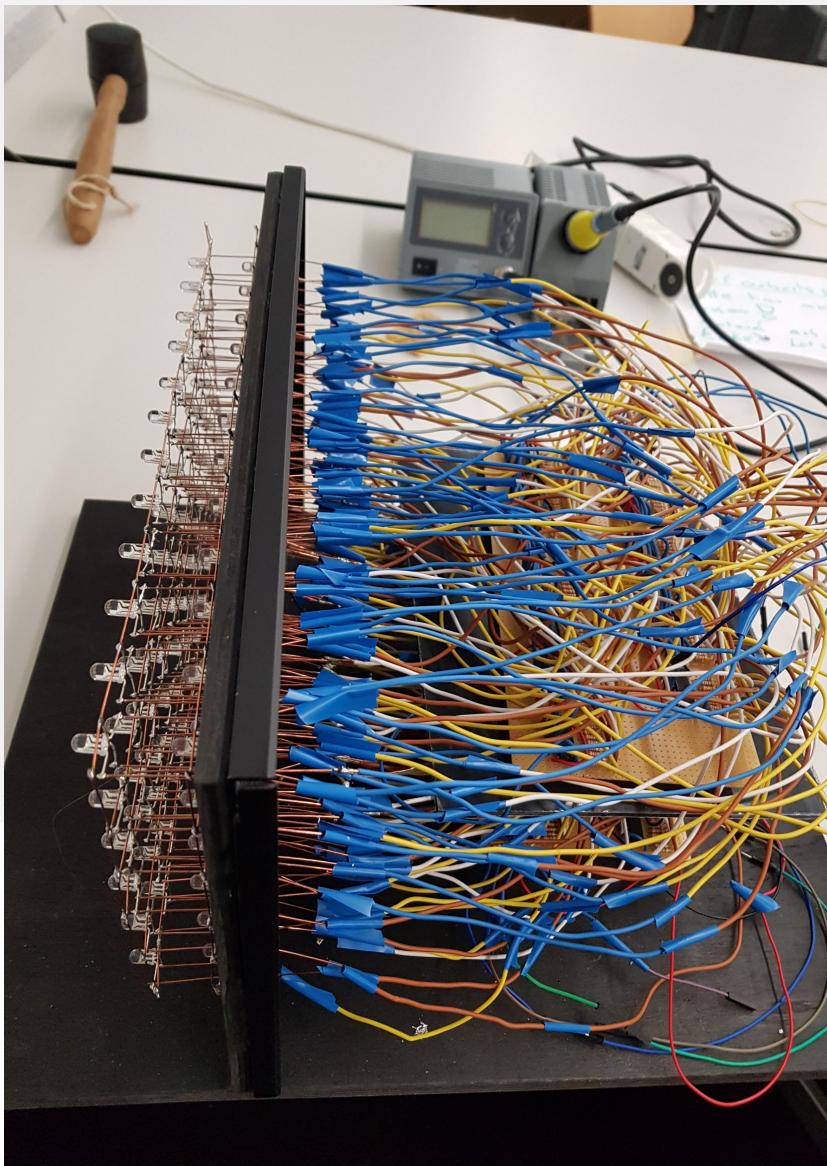
# Materialtest



# Schablone



Eine Platine?



Oder doch  
zwei?



# Der finish



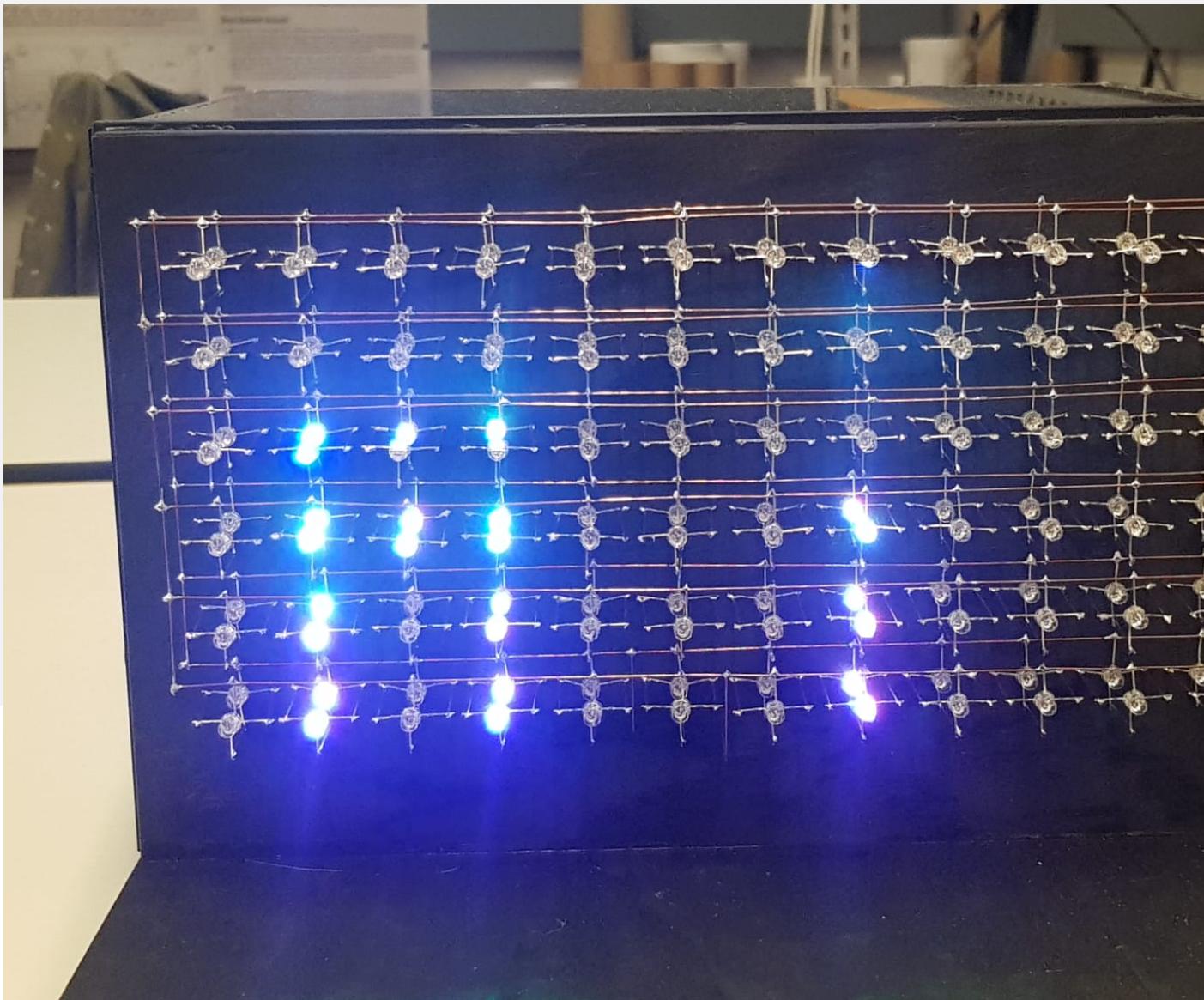
# Probleme

- Angehensweise -> Arduino Forum / Conrad
- Transistoren verwenden?
- RGB -> viele Pins -> viel Lötarbeit
- Eine Platine
- Kritische Stellen -> Isolierband



# Ergebnisse

- 8 Effekte
- Steuerung per IR
- 3 Sensoren
- Snake möglich



Demo



# Lessons Learned

- Offene Schnittstellen
- Platz zum Löten
- Testing
- Gitproject



# Fazit