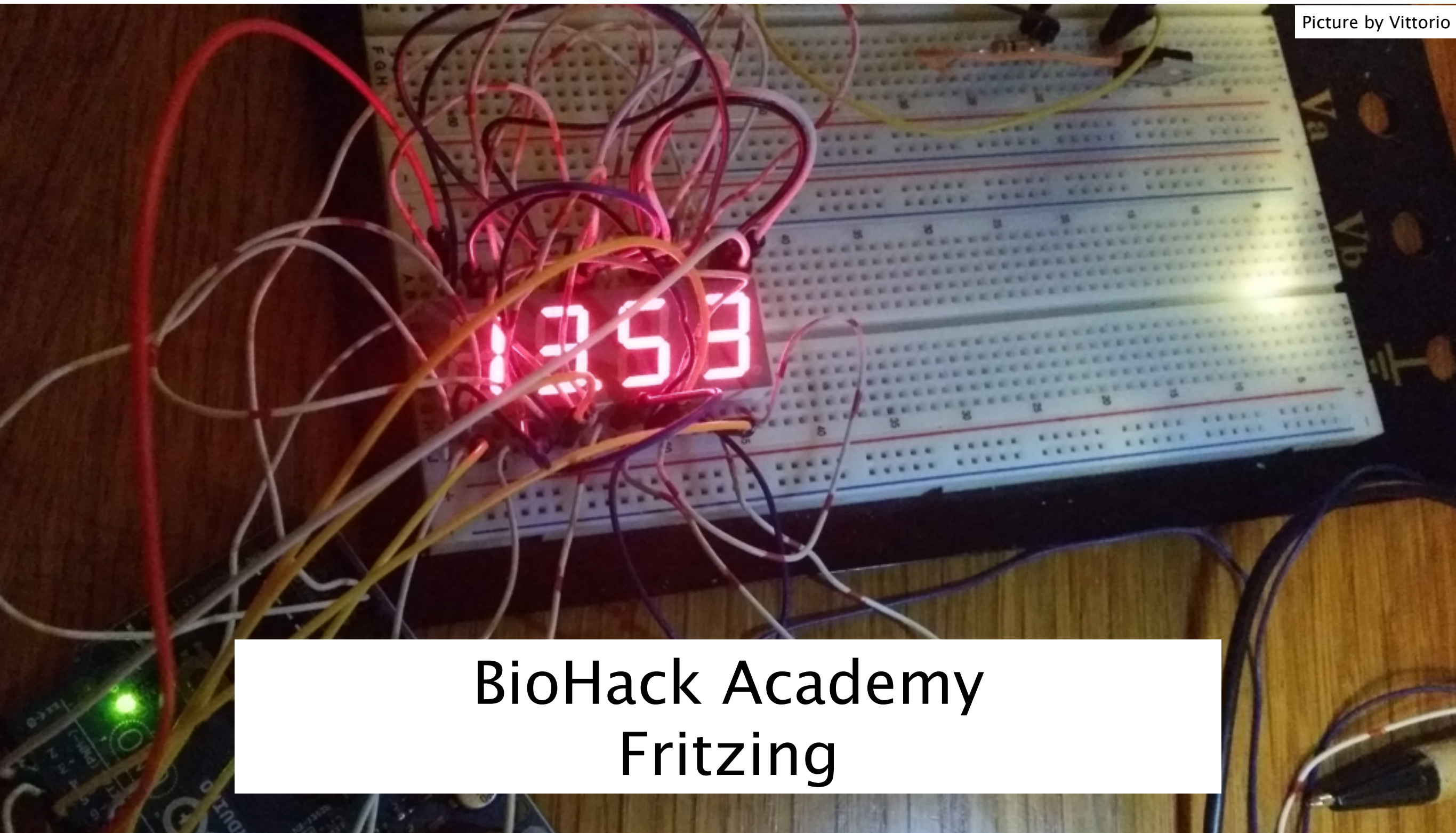




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Picture by Vittorio



BioHack Academy
Fritzing



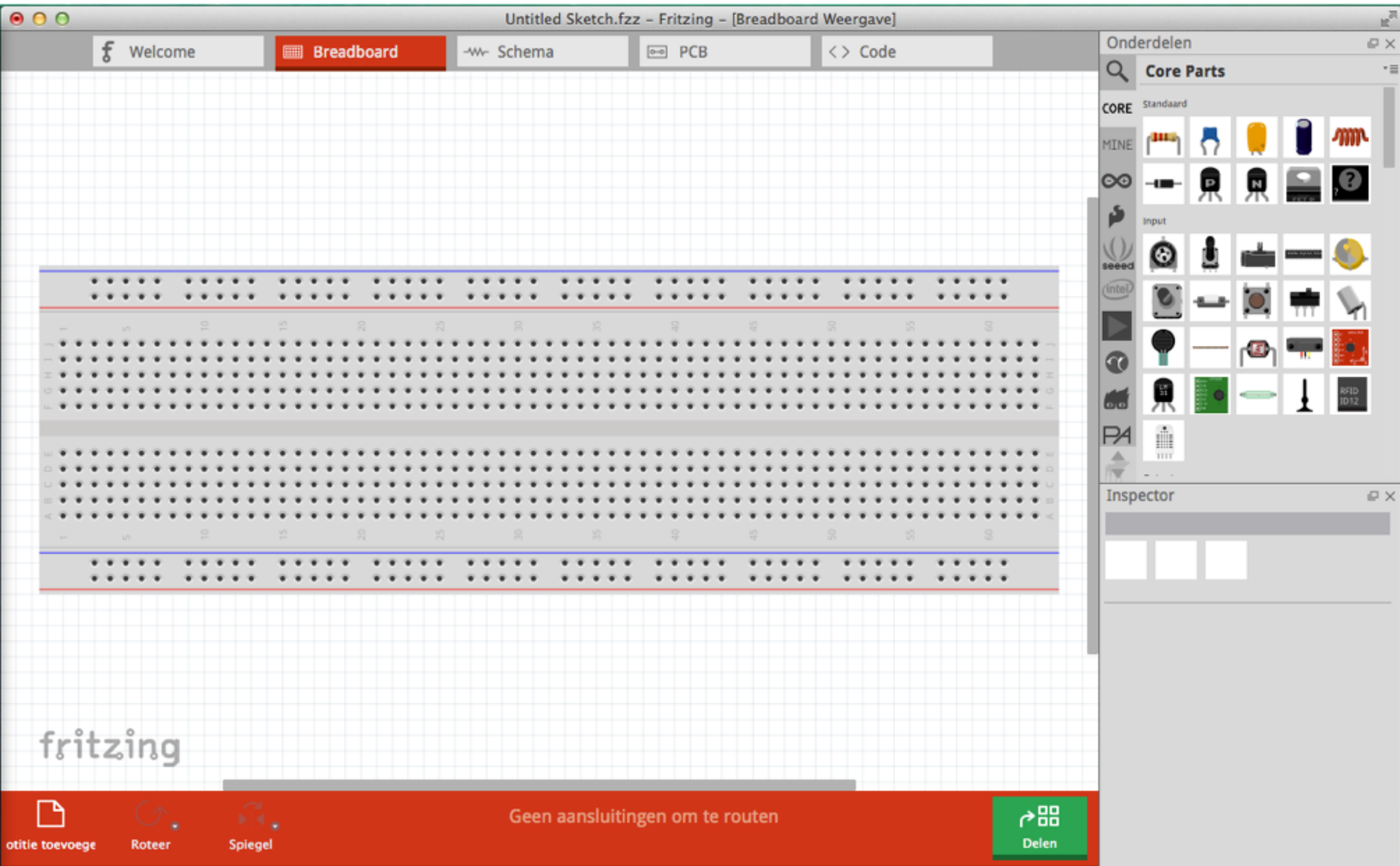
Fritzing

- Open Source
- Developed in Potsdam
- Made for artists
- Images published under CC-BY-SA
- Platform independent



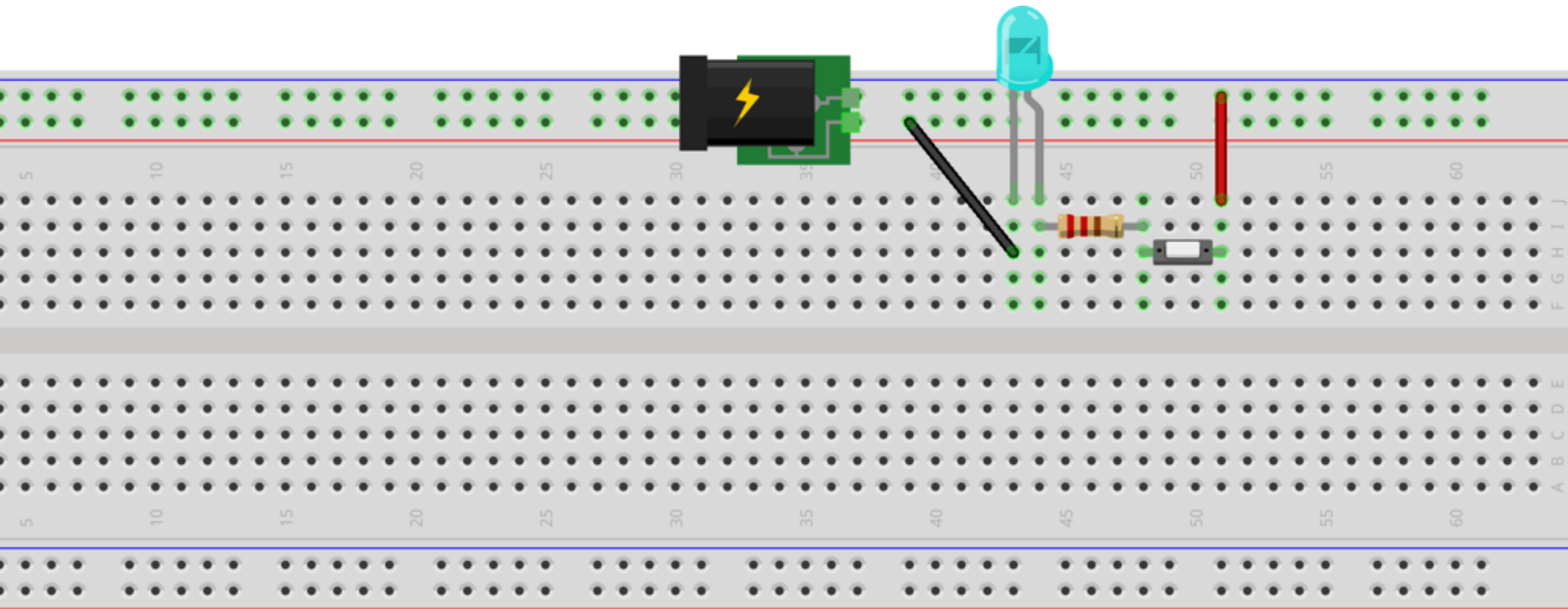


Interface





Let's make a simple sketch

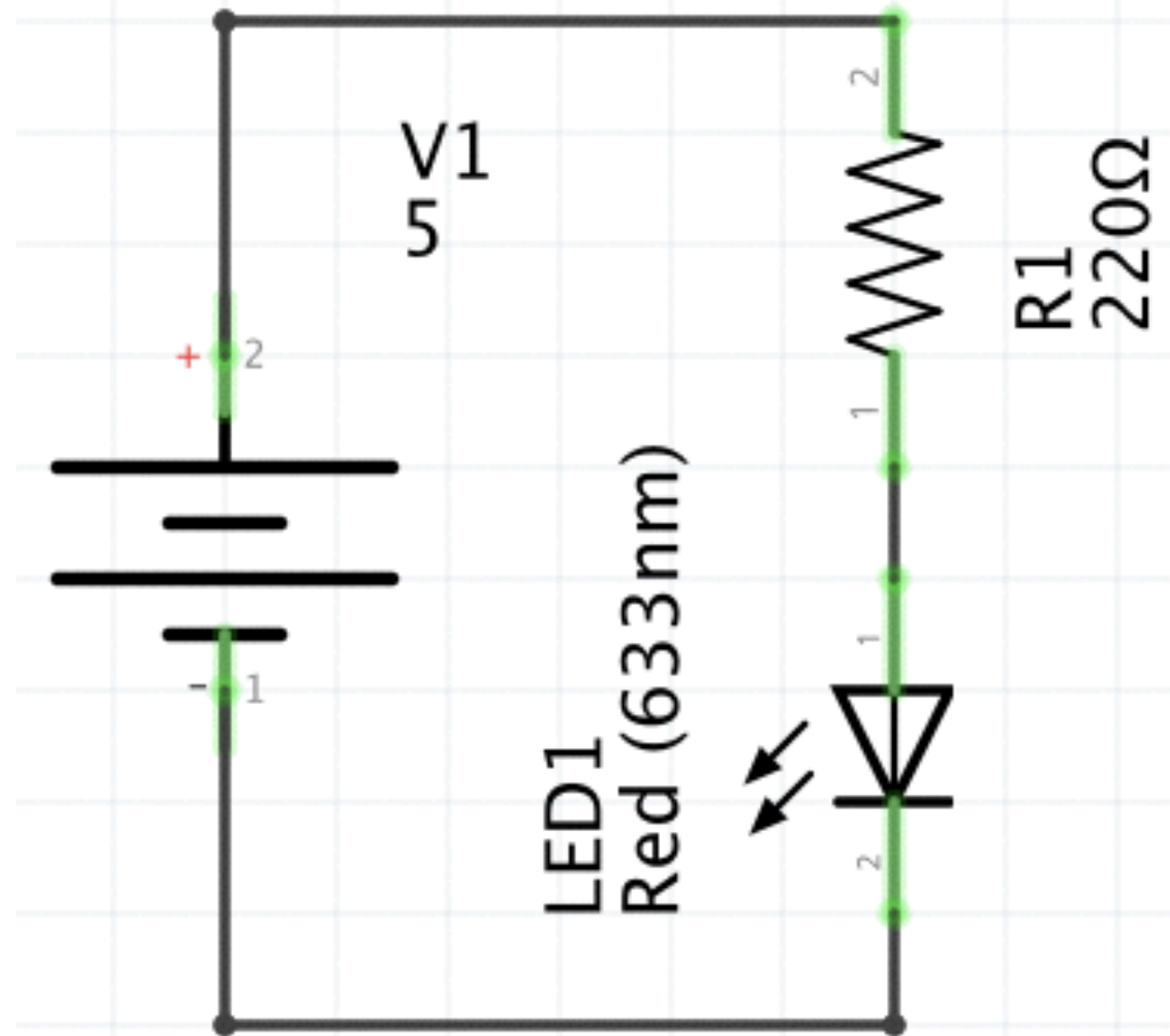


fritzing



Limiting current

- Most components have a maximum current rating
- Typical LED:
 - Voltage drop: 1.8V
 - Max current: 20 mA
- If supply voltage is +5V
 - The voltage across R1 = $5 - 1.8 = 3.2\text{V}$
 - Dividing voltage by resistance gives current:
 - $3.2\text{ V} / 220\text{ ohm} = 0.015\text{ A} = 15\text{ mA}$
 - 15 mA is well below 20 mA





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