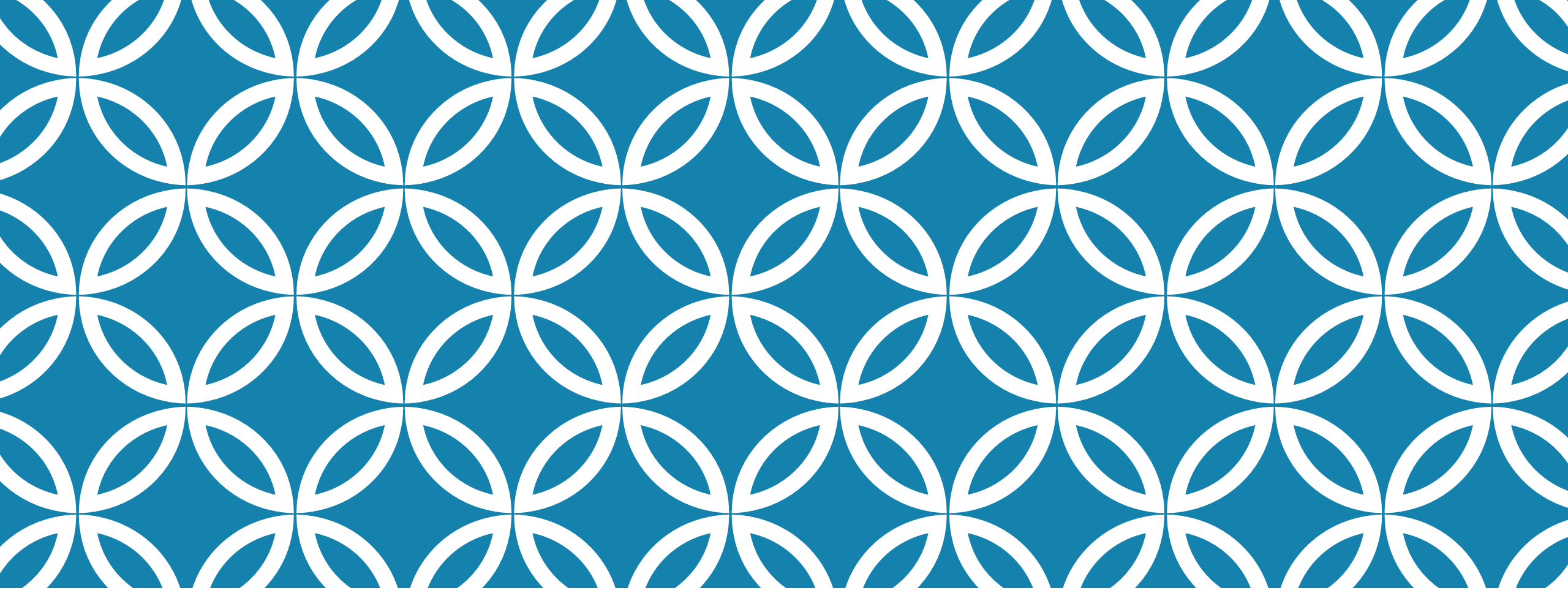


RAPID PROTOTYPE CIRCUIT-BOARD

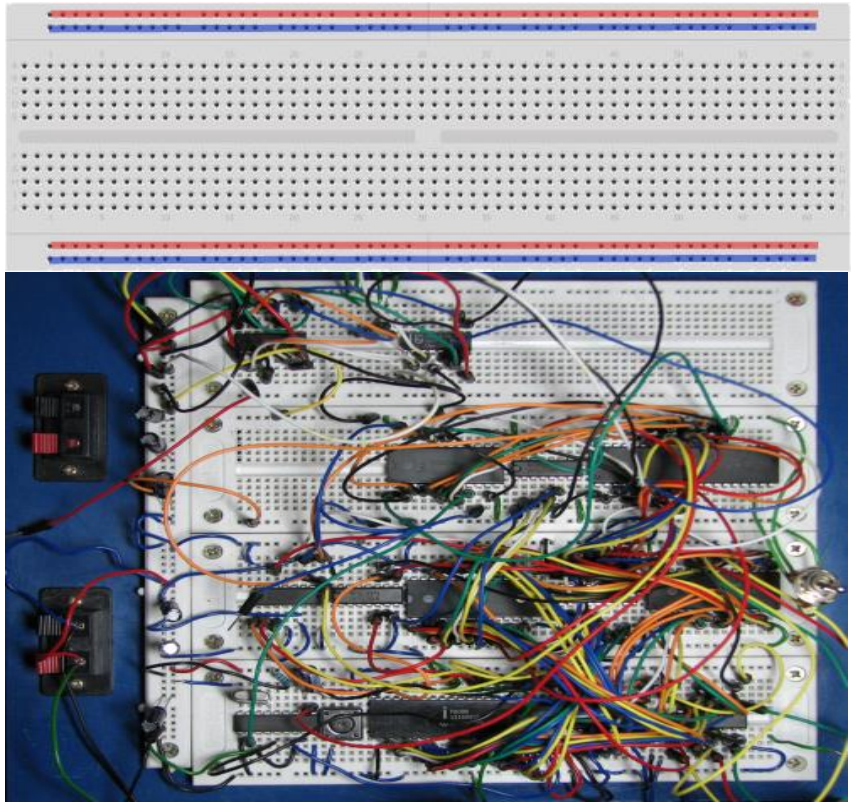
EXISTING BREAD/PERF BOARD

Pros:

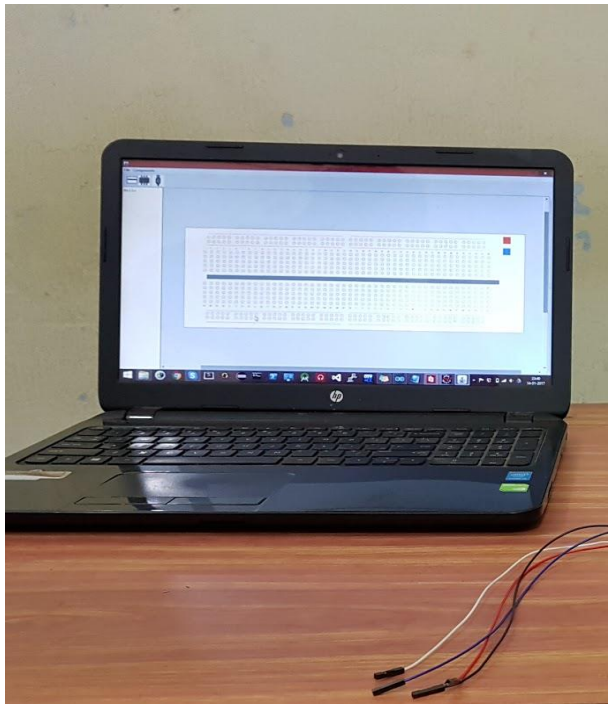
- Easy to use
- Makes temporary connections
- Cheap

Cons:

- Unreliable connections
- Messy with increase in components
- Decrease the speed of development
- Can only be used locally



RAPID PROTOTYPE CIRCUIT-BOARD



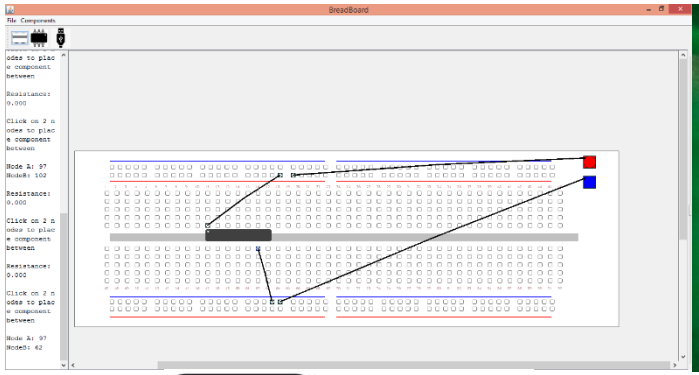
HOW IT WORKS?

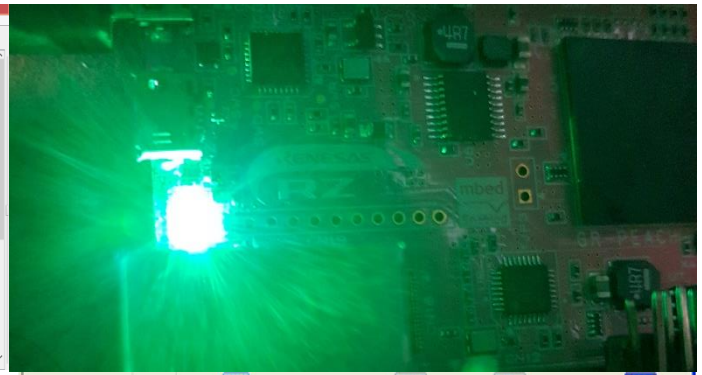
Make connections on GUI.

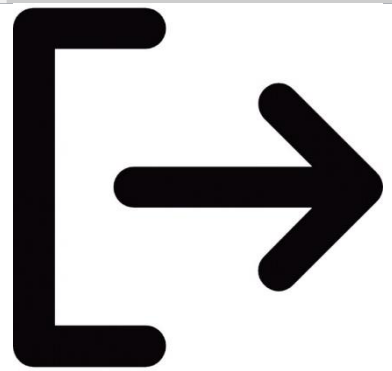
Power up the board.

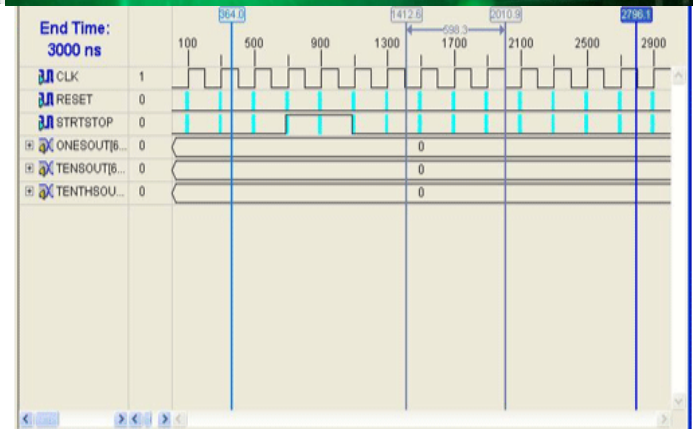
Upload your configuration.

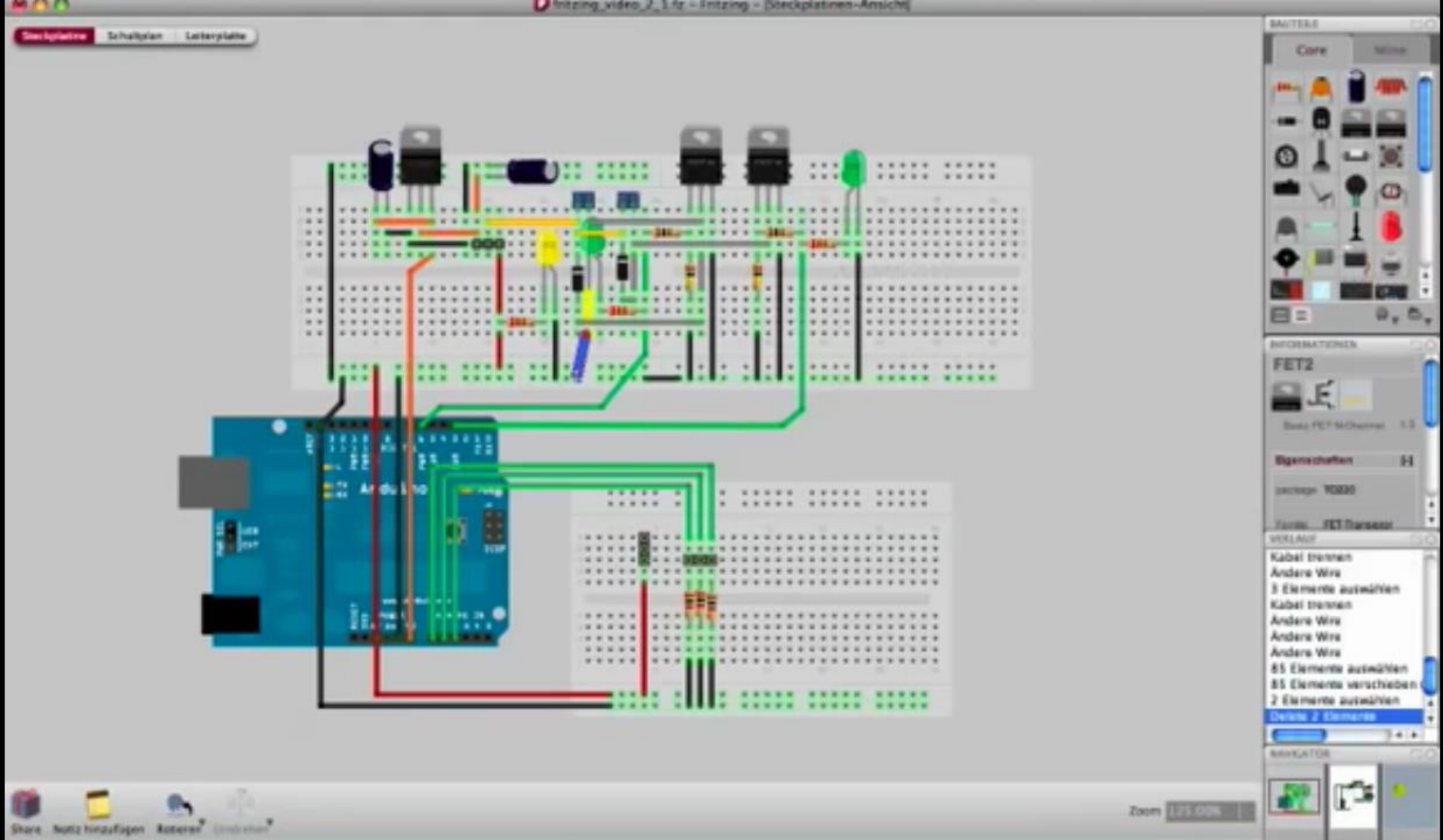
Observe the waveforms.

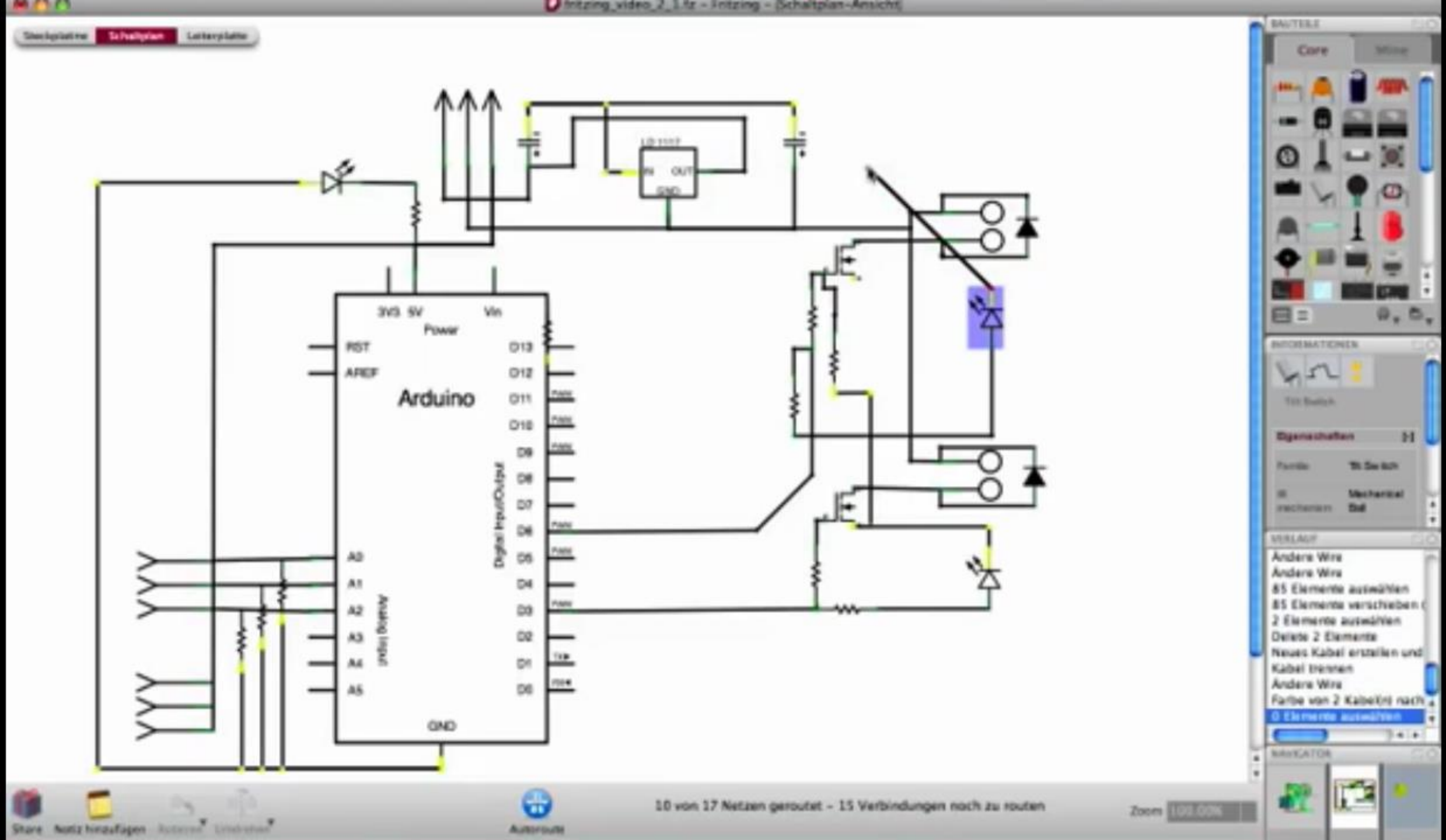


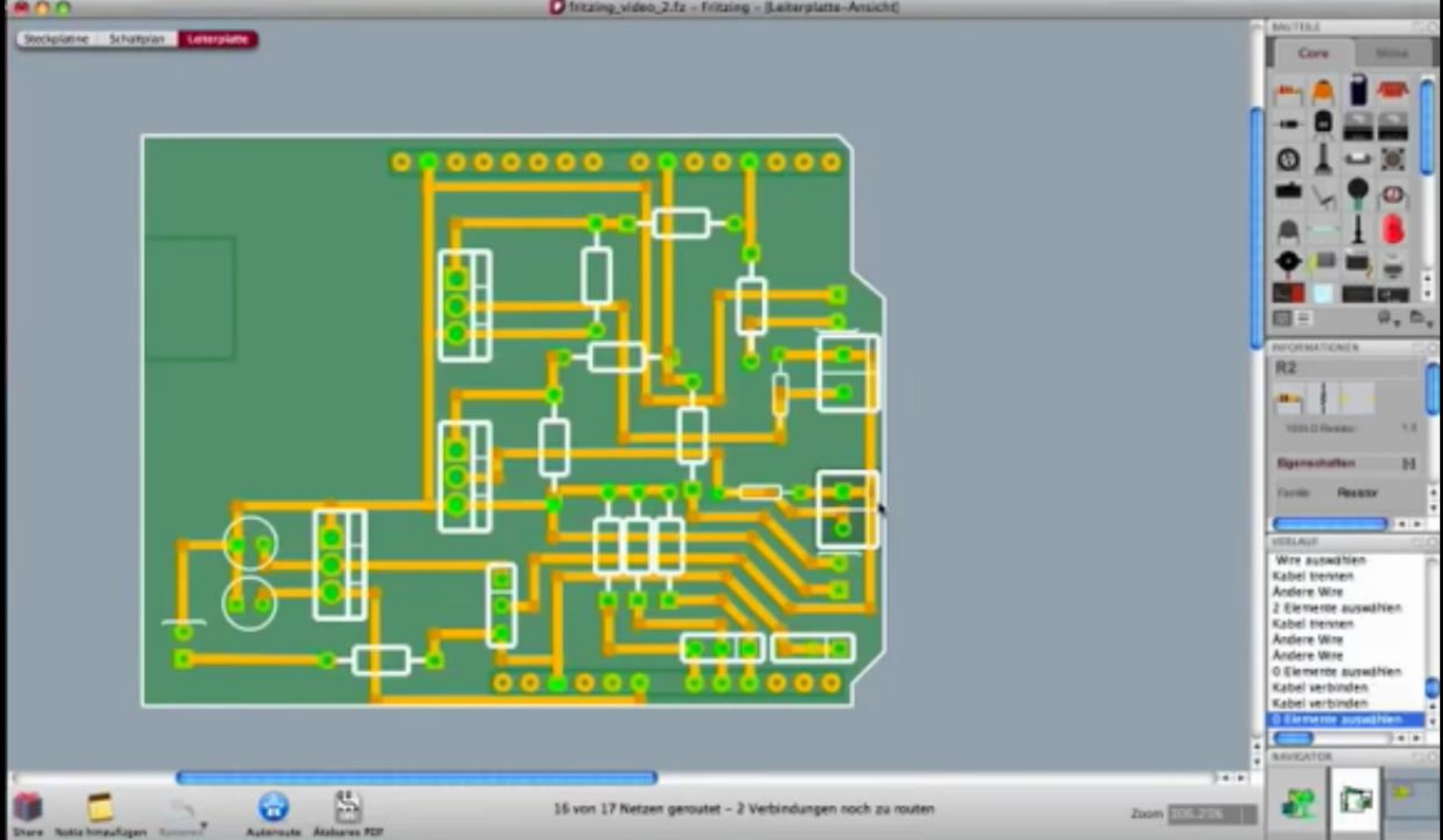


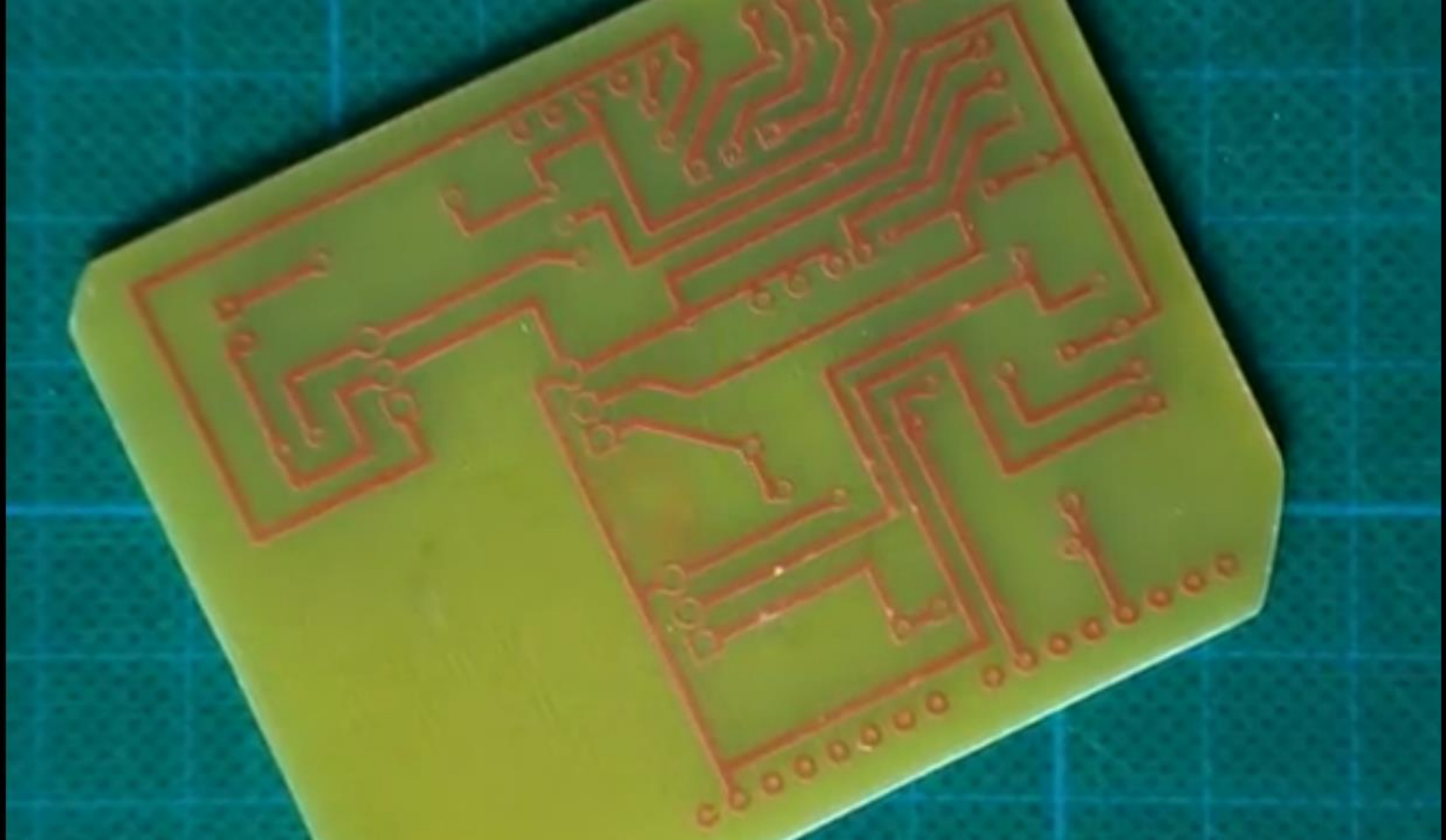





Steckplatine
Schaltplan
Leiterplatte
Core
FET2
Eigenschaften
Kabel trennen
Andere Wire
3 Elemente auswählen
Kabel trennen
Andere Wire
Andere Wire
Andere Wire
85 Elemente auswählen
85 Elemente verschieben
2 Elemente auswählen
Share
Notiz hinzufügen
Zoom


Schaltplan
Arduino
Power
3V3
5V
Vin
RST
AREF
GND
Digital Input/Output
Analog Input
A0
A1
A2
A3
A4
A5
D13
D12
D11
D10
D9
D8
D7
D6
D5
D4
D3
D2
D1
D0
Core
Eigenschaften
Andere Wire
Andere Wire
85 Elemente auswählen
85 Elemente verschieben
2 Elemente auswählen
Delete 2 Elemente
Neues Kabel erstellen und
Kabel trennen
Andere Wire
0 Elemente auswählen
Share
Notiz hinzufügen
Autoroute
10 von 17 Netzen geroutet – 15 Verbindungen noch zu routen
Zoom


fritzing_video_2.fz – Fritzing – [Leiterplatte-Ansicht]
Steckplatine
Schaltplan
Leiterplatte
Core
R2
Eigenschaften
Farbe
Resistor
Wire auswählen
Kabel trennen
Andere Wire
2 Elemente auswählen
Kabel trennen
Andere Wire
Andere Wire
0 Elemente auswählen
Kabel verbinden
Kabel verbinden
0 Elemente auswählen
Share
Autoroute
Ätzbares PDF
16 von 17 Netzen geroutet – 2 Verbindungen noch zu routen
Zoom



REMOTELY ACCESIBLE CIRCUIT

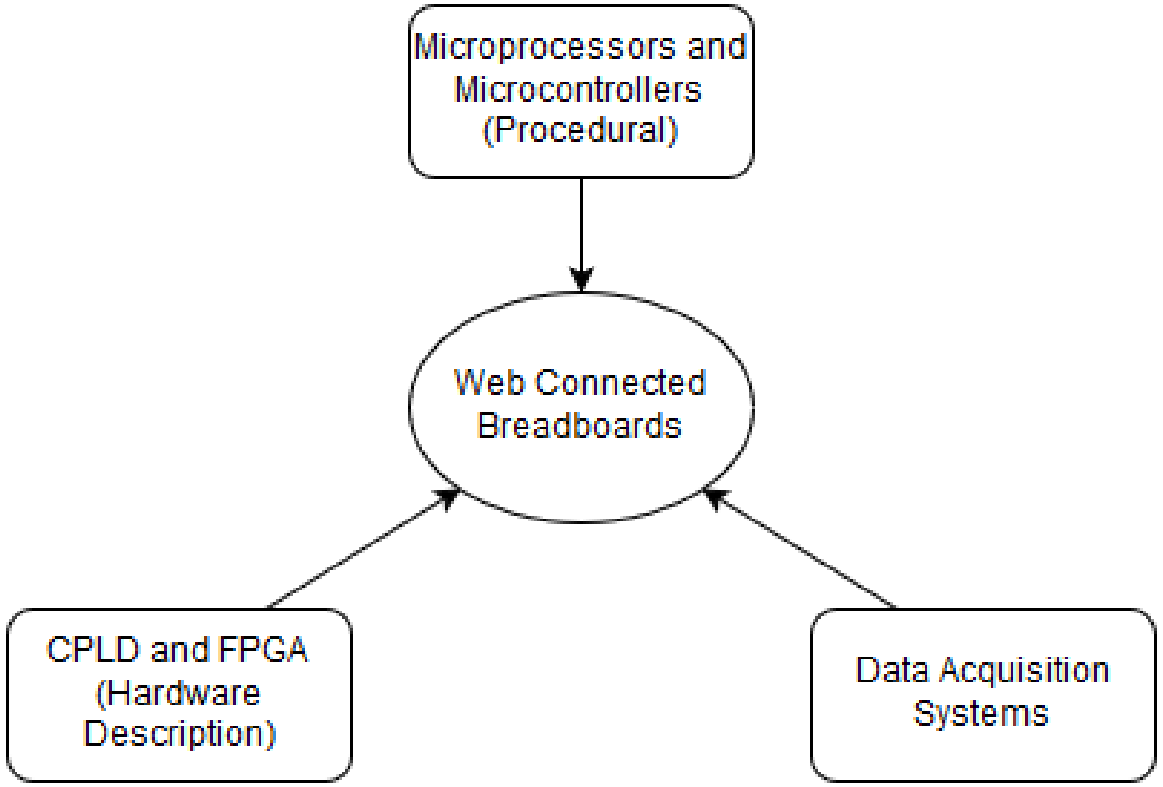
Pros:

- No wire required
- On Board Power Supply
- Configuration through PC
- Reload a configuration
- Accessible from anywhere

Cons:

- Expensive than traditional breadboard

WHAT'S NEW?


Microprocessors and Microcontrollers (Procedural)
Web Connected Breadboards
CPLD and FPGA (Hardware Description)
Data Acquisition Systems

USER EXPERIENCE

No more struggle with the messy connections.

Extended support of Voltage sources and pulse generation on each pin.

Off the site and online help.

Same circuit can be easily copied on many breadboards and PCBs.

Circuit debugging and prototyping made easier with analyser.

Make, run and analyse circuit from anywhere in the world, without physical access.

Extended support for procedural and hardware description.

THANK YOU

- **Abhinav Kumar Verma** **+91 9621 608345**

Image (Slide2) credit: © Michael Richmond at RIT, via http://spiff.rit.edu/classes/phys312/workshops/w10c/chips/chips.html.