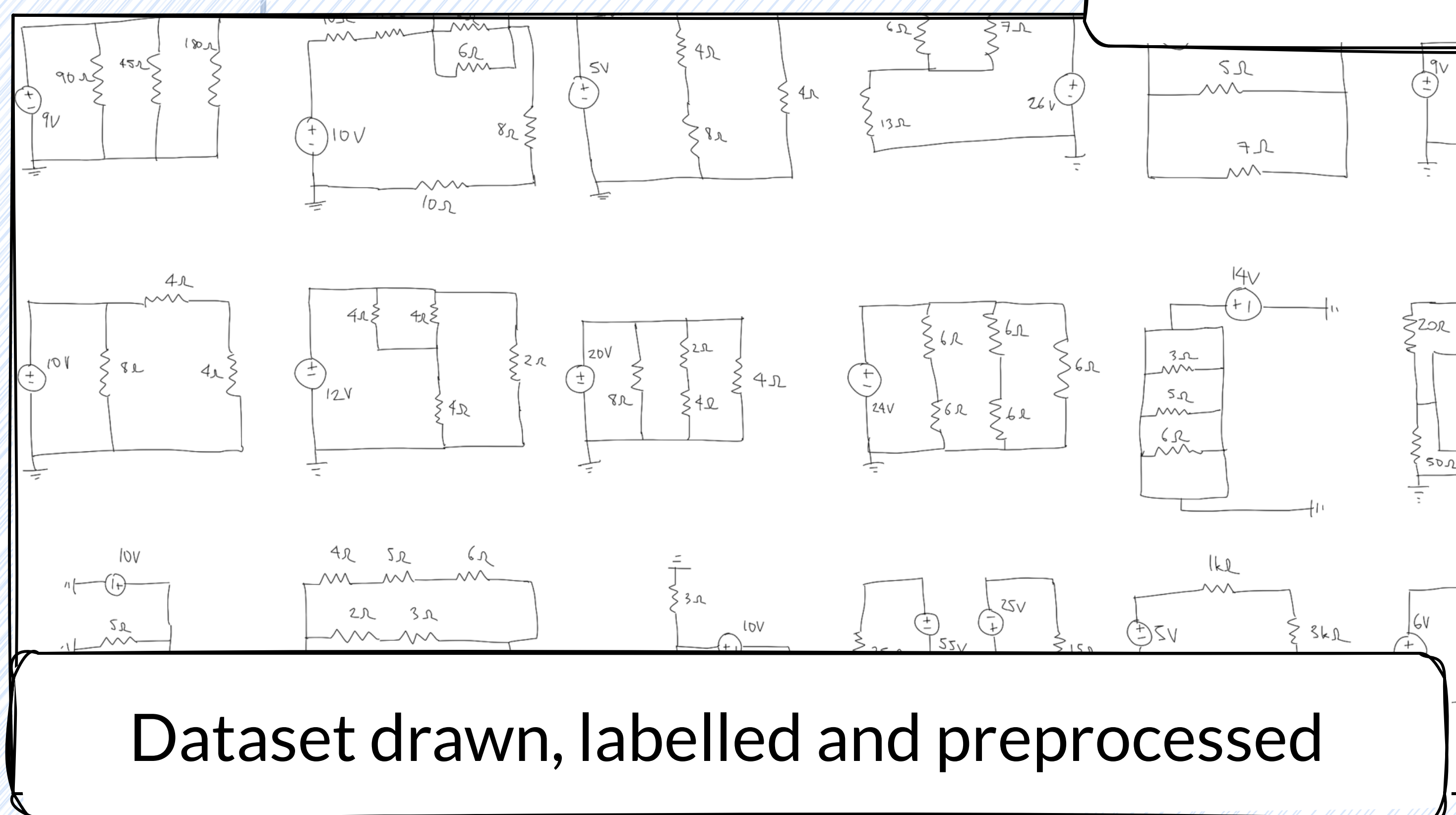


Preliminary Phase

Hand-drawn sketches dataset

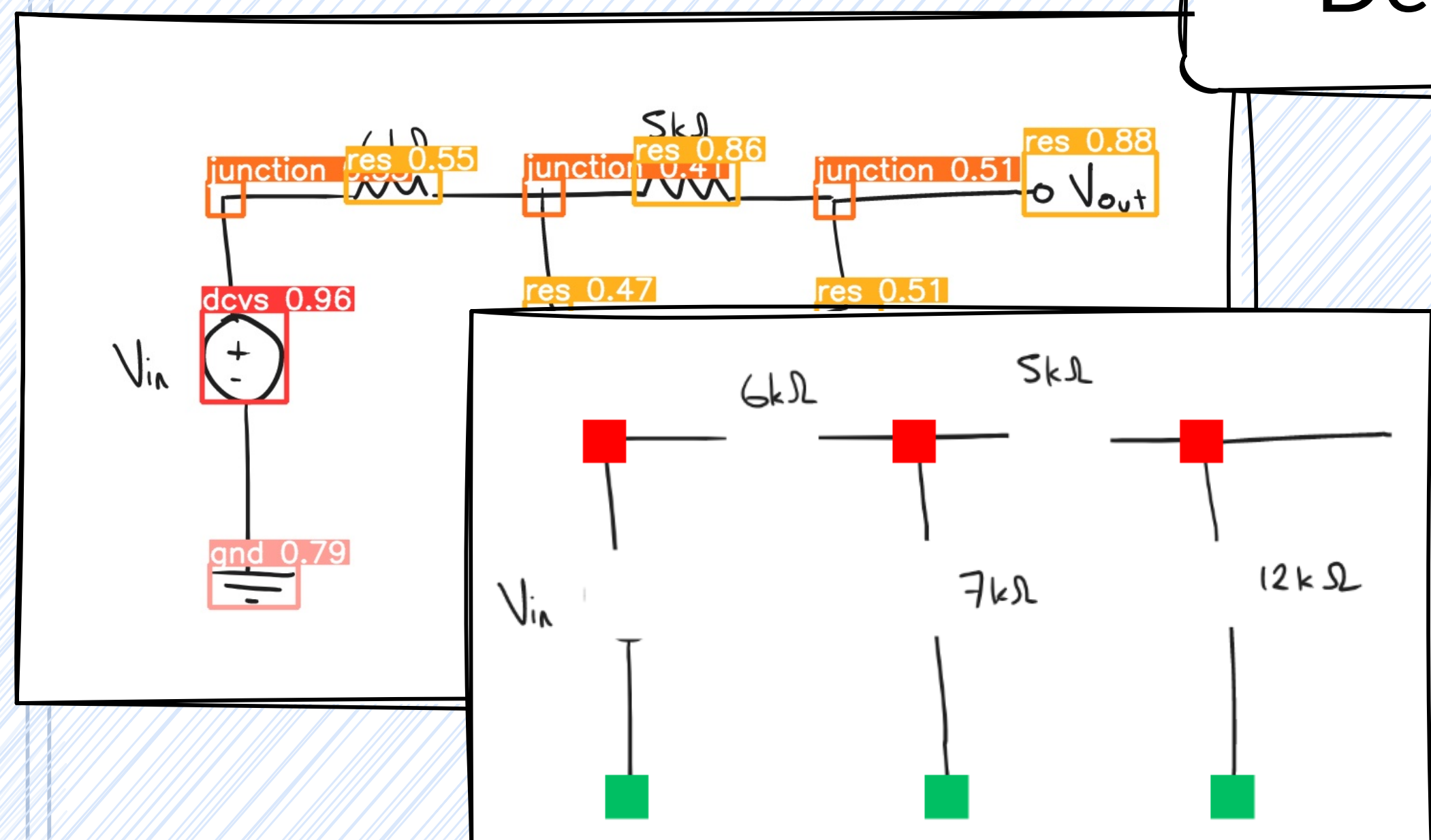
Preprocessing



Detection Phase

Component Detection

Node Detection



Netlist Phase

Node Labelling and
Component Graph

Netlist Generation

```
.param v1=10
.param r1=6k
.param r2=5k
.param r3=7k
.param r4=12k
```

```
V1 0 N001 DC {v1}
R1 N001 N002 {r1}
R2 N002 N003 {r2}
R3 0 N002 {r3}
R4 0 N003 {r4}
```

```
.dc V1 {v1} {v1} 1
```

Netlist file generated from graph

Simulation Phase

Python-LTSpice
Execution Wrapper

Remote
Simulation

