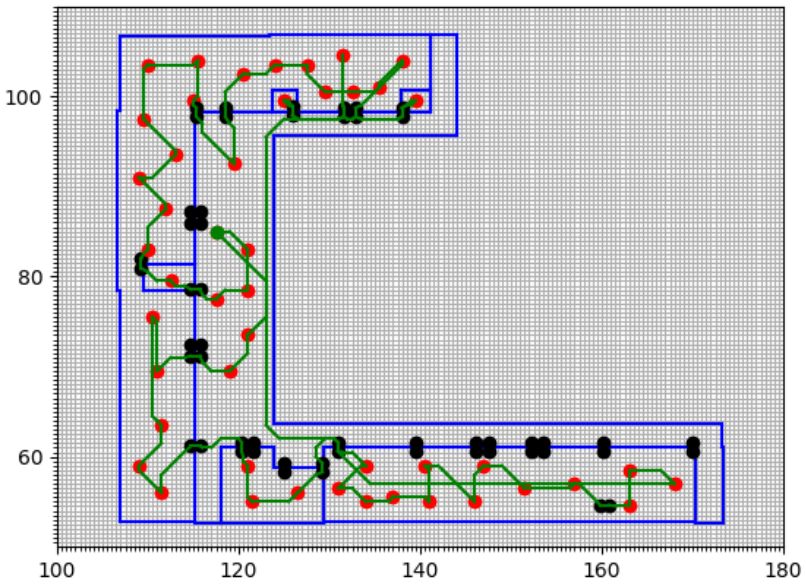
Weekly report 21
Kia Kafaei 9/4-2021

What did I do this week:
- Wrote a bit on the report
- Fixed a bug where it would produce negative nodes
- Implemented the winding number algorithm
- Did some investigating of the data and found a way around some of the previous challenges I've had

Challenges:
My challenge this week has been a few things:
1. It seems that there are different level of elevations of the building. Each room has a minimum elevation and a maximum elevation value associated with it. The different combination of levels are shown below. The figure below shows a list of lists where each sublist consist of a minimum elevation value and a maximum elevation value. The unit of the values is not clear to me yet.

```
[[-2.154, 1.646], [-2.154, 0.285], [-5.954, -2.154], [-5.954, -3.515], [-9.754, -5.954], [-9.754, -5.754], [-9.754, -6.268], [-9.754, -5.525]]
```

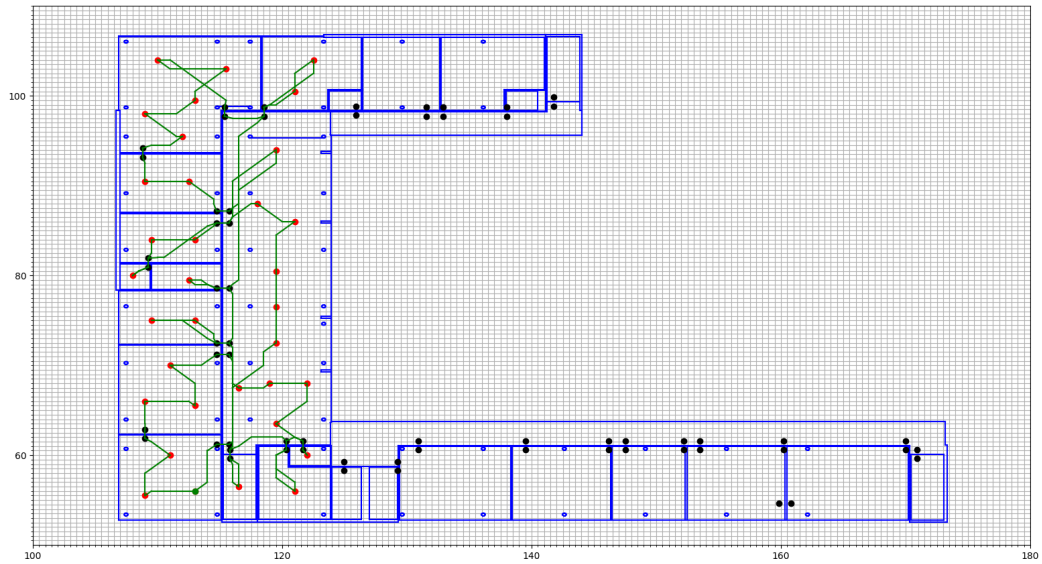
Below is shown one floorplan only plotting the elevation level [-2.154, 1.646] and the other plotting the elevation levels [[-2.154,1.646],[-2.154,0.285]]. The second one includes the wall in the drawing.



2. The elevation levels for the rooms and the doors are not given in the same units.
I have a hard time finding the correct doors for the correct floor plan, worst case scenario is that we have a bit too many doors compared to what is actually needed in the floor plan. Below is the elevation levels for the doors.

```
[[7.6, 9.81], [7.6, 9.734], [3.8, 6.01], [3.8, 5.934], [0.0, 2.21], [0.0, 2.134]]
```

3. The problem with the wall separating the building is still present. Haven't found a good solution to it yet.



What should I do for next week:

- Contact Asger from Dalux and ask him questions about the data (if he wants to).
- Fix issue with the wall separating the building.
- Start testing on another building. Got an extra building from Anders.
- Do some more writing.