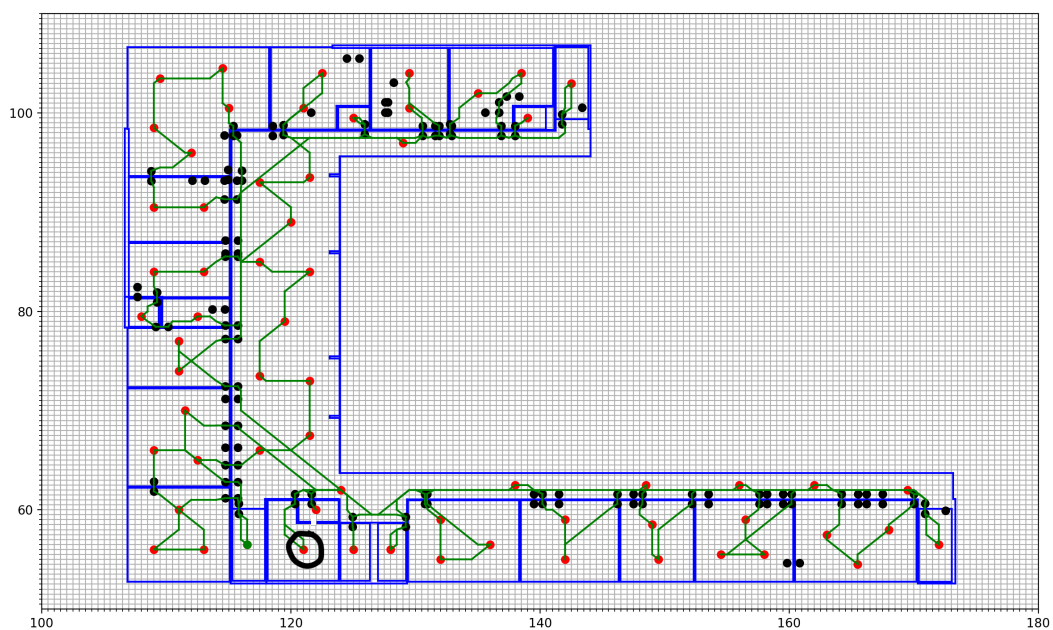
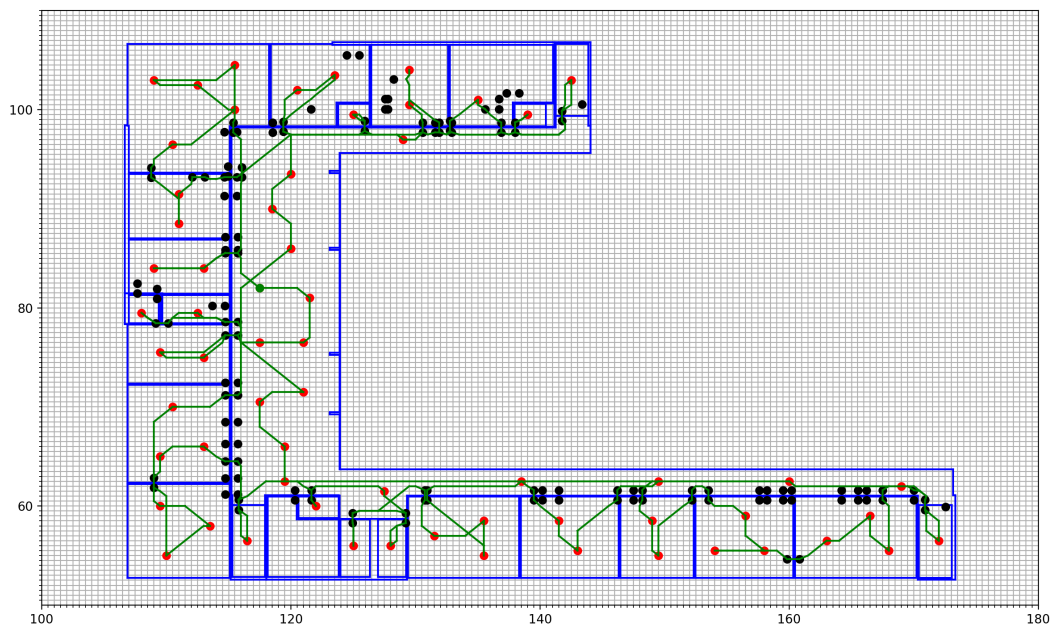


### What did I do this week?

- I finished the K means algorithm
- Fixed the bug with the door not being connected to the room
- Wrote the Introduction part of my report

The first figure shows the K-means algorithm working but the bug with the door not working.  
The second figure shows both working.



## Challenges

I did some investigating of the plotting.

I will go through some figures during the presentation to further explain my findings.

I found out that it should be possible to use the winding number algorithm instead of the “look at 4 directions” algorithm, due to the way the rooms are generated.

*In my investigation I found a few issues:*

1. There are some walls that separate the rooms without doors being present (I will show you what I mean during the meeting)

Right now I manually remove these walls, but I would prefer not to do any manual manipulation.

2. There are some small elements in the plotting that can complicate things with regards to using the winding number algorithm (will again explain during the meeting)

3. I still have the issue that I have to manually select how many rooms to include in my figure

On a side note the guy at Dalux that is responsible for sending me the buildings is currently on vacation. I will start testing on different buildings when he gets back from vacation.

General Report Questions:

Can I copy paste text from a website and reference it? Or should I always try to reformulate the text?

Generally when should you write and when should you reference to other sources?

## What should I work on for next week?

- I should have found a solution on all three of the issues described above
- I should implement the winding number algorithm
- Continue writing on the report