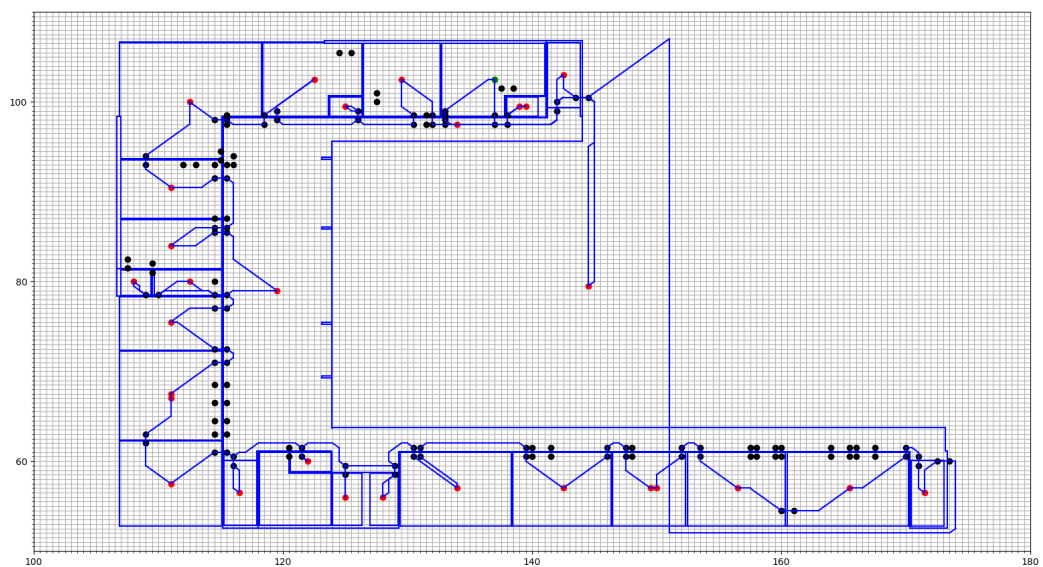
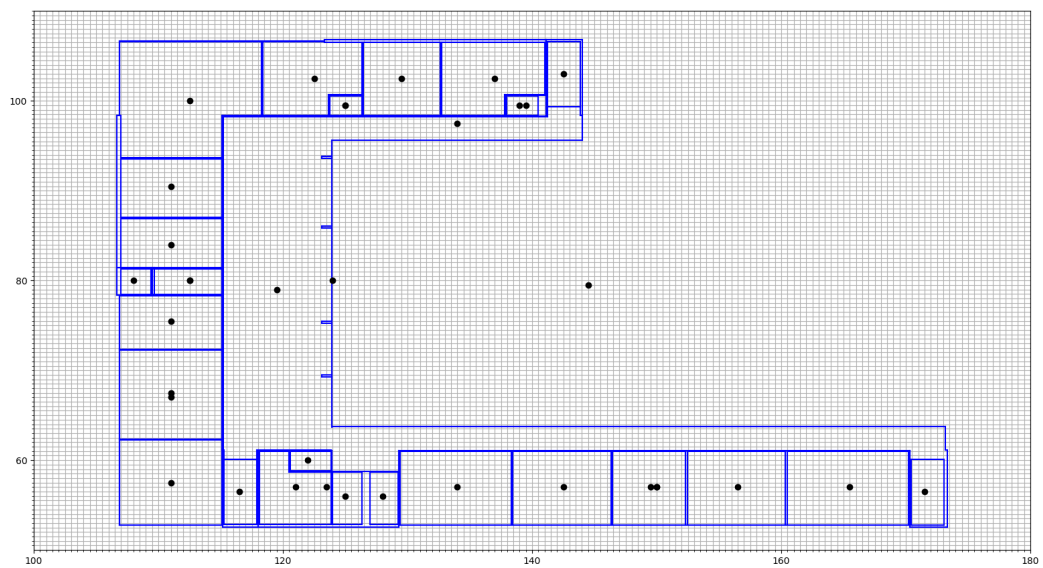


### What did I do this week.

- I managed to autogenerate room nodes, placing them at the center of each room.
- I managed to remove all the autogenerated room nodes that would not be accessible for one reason or another. This means that the pathfinding can now work on autogenerated room nodes.
- I also managed to connect the doors to their complementary door.



In the first figure above you can see all the autogenerated room nodes, while the second figure shows the path where only the room nodes that can be accessed are included.

## Challenges this week.

### Issue of path outside building

As can be seen above I still haven't solved the issue of the path being outside the building. The solution I can think of is asking the user of the program to remove all doors that are connected to the outside of the building using if statements.

Another way to do this is to check for all the lines that are on the outer edge of the building and then check to remove doors.

Another way is to use the coordinates of the rooms to somehow tell the program to only traverse inside these coordinates. This is what Andreas suggested during the last meeting and is the approach I am going to work on first.

### Issue of node outside building

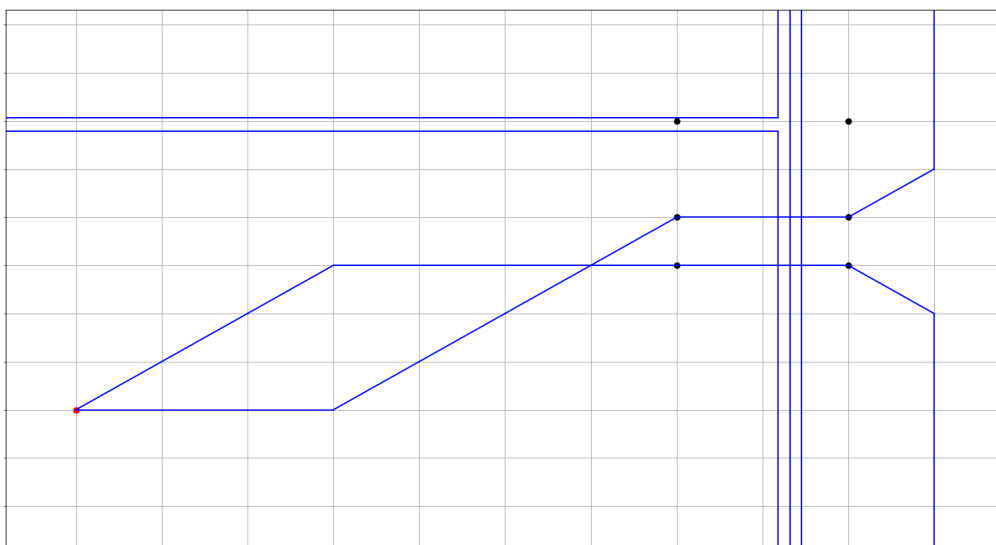
This issue is closely related to the first. The autogenerated room nodes works by placing a node in the center of the room. For this building one of the room centers are outside the building.

### Floating doors

I also have an issue of removing floating doors in a reliable way, without removing them manually.

Doors that are side by side.

Below an example of the correct way is shown. The issue is that the program also allows for doors side by side to be connected as long as there are no nodes between them. I will explain this further during the meeting.



**What should I do next week.**

I should decide on a good solution to not make the path go outside the building.

I should look into ways to do optimal node placement.

I think we should talk about what can realistically be accomplished. I have a feeling that a lot of time will go into testing the algorithm and getting it to work on different floor plans.