Okay, let's go, we're gonna do assignment five. Okay, simulation of co-evolution. What's involved in your simulation of co-evolutionary design? Listen, there's a method to in turn automate a building's rotation design designed to perform the design.

Therefore, you create a structural model and constantly change the building's spatial design. You want to complete two rotations of spatial spacing. Your assignment starts with on the left, okay? Okay, building's spatial design.

Here's your building of spatial design. Resonance and gradient. You assign one of the actually options here.

Okay, well, let's see. We have to make this building stable. First, we're gonna make sort of concrete in the middle to get a, not sure what I'm adding.

Oh, here's the one. I'm just gonna click on some things, but I'm not sure where the things have to be. Okay, well, I'm going to 35 and 36 to a beam because you have open windows there and you can open them up.

Okay, then we're gonna take it to 34. 34 is the top of the building. So you can also have some columns there from, or, okay, I'm gonna, I'll start again at one.

One is in the middle of the buildings. The middle of the building want to be an open space, so it will be a beam. Yeah, two.

Two is at the backside of the building. We can use a flat shell or, I think we use a flat shell so we can create some sort of living area. And get a structural properties for the thing.

The third one. Third one is the long side. I think we close this one because of the structural properties.

Otherwise, though, if you don't get, like, the weight on top, we'll have to go on this one. Otherwise, it will fall down. Okay, the fourth one.

I don't know where it is, but it's over there. Let's also make a truss. And this will be for the balcony on top of it to just not overhang and create some structure of it.

Fourth, number five, we can also make, also we're gonna make a flat shell because the load on top has to go down. Okay, number six. Number six is at, I don't know where, oh, it's at the middle.

I think we're gonna make a beam because otherwise, there is no open space in the living area. Okay, number seven. Number seven is at the back side of the building.

I'm also gonna make, I'm not sure what we have to do here, but I'm thinking of creating an open space. Yeah, so the light can go through, but there also have to be properties for the floor top, and it's not that high, so we're gonna make a beam. Okay, for number eight, we're gonna make some beams because there's no construction on top, so there won't have to be a big load.

Okay. Round number nine, we're creating, creating a concrete wall for the stability. Number 10, we're gonna create a beam for the open spaces.

Number 11 as well for the open spaces, and there's no load on top of it. 13, 13, where is 13, 13, 13, 13. We're gonna make beams for open spaces to get some open, yeah, so that it's not has to be a big load on top of it.

13, where is 13, 13 is a flat shell, so we're gonna make like a concrete-based shaft. To go to the top, and number 14, I don't know where it is, I'll have to look. 14 is there, we're gonna make a beam.

I'm also gonna make another beam where there's trash right now because for the open space, otherwise there's no lights going in. Okay, well, then we're gonna continue, a beam. Yeah, I'm gonna make a beam at 15 because there's no load, and otherwise it will be too heavy to go down.

16, 16, 16, 16 is in the middle of the house, but we're gonna make a concrete shaft out of that, so we have to make this one a flat shell because for stability. Okay, 17, 17 is on top of the building. I'm gonna make beams over there.

Four, make a beam over there, 18. I'm gonna make a beam as well because there's no weight on top. 19 is a trash for the shaft.

20, 20 is also for the shaft. We're gonna make a shaft over there, so that will be a stability shaft. 21, 21 is over there, also a flat shell for the shaft.

22 is in the inside of the building, so we're gonna make a beam over there, I think, because, yeah, we got the stability from the shaft. 23 is, where is 23? So the inside is for the shaft, but we're gonna make the shaft on top of each other, so then that one doesn't have to be that. And then over there, we're gonna make a wall as well for the stability, of course.

25 is also in the middle, but I'm not gonna make a shaft, otherwise you can't go through it. 26, 26, we're gonna make a shelf, a flat shell, because it's on top of the bottom part, so it can continue. And to the top, well, 27 is a beam, because the bottom part also didn't have a wall, so the wall just has to go up.

28 is a flat shell, because the beam has to be a beam as well. 29 can be beams, because, well, just add a truss over there. No, a flat shell, because the bottom part's also a flat shell, so we can make it over there, yeah.

Okay, 30 is a beam, because it's like a small thing. Okay, and then we're gonna make it all beams, I think. The rest of it, because we're good.

I also only want the top one to be a beam, not this one, not that one, not that one. I'm gonna look here, 37, or otherwise it's flat, so it's like the wall can continue to go up. And also I want the other side to go to the top.

Not sure which number that is, not that one. Next to 33, I'm not sure what that is. Have a look what that is, not that one, that one.

So the shell's gonna go up. I think it will be stable now, but I'm not sure. Yeah, I think it's stable now.

If you ask me what I think about your reasoning for the spacing, particularly space to enter ID below, press enter to confirm space. If I want to remove a space, I think I would remove 10, and that's because of the height of the thing, and the height, it's like a thing on top, so it's not really a particular space to have. Okay, continue.

As a split, a maximum of one space, you decide which to split. Which should I split, and why should I split this? I think I'm gonna split seven. Seven, and that's because of the biggest, it's the biggest one, and it's really large span, so you can divide the span into two ways.

Okay, I have to make it again. Number one, we're gonna make beams, that's good. Number two, we're also gonna make beams, because it's outside of the building.

Number three, we're gonna make a trash, or wall, and then a wall. Five, we're gonna make a beam, that's good. Six, we're also gonna make some beams over there.

Seven, also. Eight, we're gonna make a shaft over there. It's inside, so a beam, but we also make a shaft.

No, we make a shaft. No, that's a beam, sorry. Okay, beam, beam, beam.

I'm not really sure. I want to make from 12, I want to make a wall, because it has to be stable on that side. 14, where's 14? 14 is over there, I'm not gonna make a beam on this.

Yeah. Beam, okay, trash, beam. I, I, it's a, I don't know where I should stop, because there are almost a lot of combinations.

Because if I, the DST, the main part at the bottom, I'm going to make a beam over there, because I'm gonna get the stability somewhere else. Yeah. 20.

Yeah, and that's, that's what we want. A beam is. So you're only going to have a postage on the side, but it's not a problem.

Okay, standing on here, I'm going to swap the image to OBS. Yeah. 22, I'm gonna make the stability of the top part and the rotation of the building.

And 23, we're gonna make like a sort of shaft again. Here, we're gonna, it's open. Make a shaft of 25.

25, this one we're gonna split, but that's, that's good. Yeah. Not gonna close up 27, because you have to make a walkthrough.

28 beams, 29 beams. Yeah, I'm gonna make the beams as well. 32, they have to be beams, because it has to be a go through to it.

33, it has to be beams as well, because it's not really like a source on top of it. 34, it can be, yeah, truss, I think. 35, I don't know where it is.

It's over there. This can be beams. This is pretty easy to get at somewhere else.

36 as well. 37, we're gonna make a flat shell, because then you have something to, some stability. 38 is the beam.

39 is the beam. 40, 40, because there's a wall under it. We're gonna make a wall on top, so that the forces can go through the wall to the bottom of the building.

41, yeah, we're gonna make a truss as well, because of the overhang. 32 is the same as 40, 42 is the same as 41. Okay, this one has to be, can be, we can go, we're gonna make a flat shell, because there's one under it, so it can go through.

Let's see, yeah, this is good. They're overlapping, overhang things. Go on, 45, I'm not sure where it is.

Oh, that's there, it can be just a beam. I only want to change the, bottom part. No, that's good, I think it's good.

You're asking about, nine, I'm removing space nine. Okay, yes, okay, continue. Divide, divide one space.

I don't think I'll have to divide one space anymore, but if I would do it's eight, I don't know why, but I have to do this. I'm satisfied. I think that'll cut it.

I think that'll cut it. I think that'll cut it. Okay, so, everything's in one group.