**Room 13-20240430 160204-Meeting Recording - Trim**

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So happy you're here and hope you will have a nice experience. Thank you. In this assignment you will see the structural design to most stabilize with minimal structural adjustments.

Minimal structural adjustments. Structural design represents a villa. The structure is a steel wire frame without floors consisting of rods connected by hinges.

Displacements of all structural points at ground floor level are constrained in x, y and z. But rotations are free. The structure is currently unstable. You may try stabilizing this structural design by adding rods diagonally or replacing rods with beam elements.

An individual truss element that is only able to take normal forces. Its connection to the structure always with a hinge. It's always with a hinge, I think.

A beam element can take off for some moments. Its connection to the structure is fixed. This offering is again free rotations.

I think I will just start and see the structure or read first. The figure below shows both methods here. The portal is just an example of how beams can be applied.

Substituting one beam for a rod does not create a fixed connection by itself. Its connection to the structure is fixed but substituting a beam does not create a fixed connection. Okay, confusing but okay.

Rules for stabilization in this assignment. Note you do not need to consider buckling. Therefore the direction in which a diagonal rod is positioned does not matter and cross-bracing is unnecessary.

So they mean that cross only one, not two, I think. There are two conditions for the replacement of rod elements. Structural elements are not allowed to span diagonally through the inferior space.

An element should not span more than one beam. Artificial intelligence is able to minimize the time consisting of rod and beams. In this program, a suggestion can be asked as to whether a rod or set of beams is placed or the mesh of the structure is stable.

Okay, next step. Next assignment. For human-to-human stabilization examinations, expect a duration of 20 minutes.

Read the following instructions carefully. You will in a moment go through design thoughts. It is important that you say out loud everything that you think or do in designing.

So in every step explain what you do and why you do it. Try to keep speaking constantly and not be silenced for longer than 20 minutes. Please speak English.

Good luck. Okay. Next step.

Are you sure you want to continue? Once you continue to the next step, you cannot go back. Continue. It can take a few seconds.

Yes. Okay, so this is the structure. Can I? Oh, yeah.

Oh, but this is the bottom. Hello. Okay, yeah.

Okay, now it's clear. Yeah, okay. Stabilized structural design with minimal structural adjustments.

You may use the action suggestion 27 times. Say out loud everything you think and do. This explains everything.

The structure consists of what's connected to the hinge interplacement. And what's always connected to the structure with the hinge connection. And with the PIX connection.

Please refer to the, yeah, PIX. Oh, and then I can do that by myself. Or I can do AI.

Yeah, I can do it. But let's try. What happens if I click this? Oh.

Enter two opposite members to place. Oh, okay, yeah. Okay, yeah, so I can, maybe I just try something myself.

Okay, you want to stabilize in two directions. So if I say this. And, oh.

Oh, I have to enter the names. Okay, so say 179 and 144. And then enter.

Oh, yeah, okay. But how do I check it now? Or, okay. What was it? Oh, hi.

I think so. I was wondering, like, if I want to check it, if the program is stable enough, how do I do that? Then I have to just click. Oh, that's not possible.

Oh, yeah, yeah. Oh, but here it says, if then I, and if it's stable, then it says the search is stable. So that is the sort of check, right? Or, but I can only do that when I click this, but not.

Yeah, okay. Yeah, then it says. Okay, so in that way, you can sort of check.

Yeah. Okay, but then it's also one of your tries to say. Okay, yeah.

Yeah, because I already think that AI can help you already with that, but just do the check for you. But yeah, okay. It's okay.

Okay, yeah. Okay, yeah. Yeah, then, but otherwise, if I think it's, if it's done, then I just click finish.

Okay, yeah. Okay, thank you. Okay, I will just try something myself, and then I will check once, I think, to see if he thinks it's stable, and after that, or he gives me an option.

Okay, then I want to add more diagonals. So 181 and 167. Oh, let's click finish, and then I'm gonna place it over here on this side, also on two layers, one, six, nine, five, enter.

Oh, why doesn't, why don't you work? Oh, it's 195. And then on top, 883, 203, enter. Yeah, and I think there needs something to be here at the large spans, but maybe just start with this, and then let's give AI a suggestion.

What is the suggestion? Oh, it's here on top. Yeah, maybe I wouldn't do that by myself. Now I'm thinking that I think AI is smarter than me, so let's just accept.

But now I still think there needs something here at the bigger areas, to say so. Let me do something with B, maybe. Maybe another suggestion.

Oh, there, but that was not allowed, right? To interior of space. Yeah, structure elements are not allowed to span diagonally to the interior of space. So does that mean that I have to discharge it, or I think so, but it's weird if it's not allowed.

And why does he do it then? Let's discharge. Okay. So he can make mistakes, yeah.

I want a beam. I think that's fun. We're gonna make a beam.

It's maybe there in the middle. Two, three, four. I'm not sure if it does something, but I don't think stability is my best thing.

Maybe, yeah, the distance is so big. Add some diagonals over there. I don't know.

Oh, now I have to think of Miero. You had to use that in our first, second year for structures to make it stable, and I can't even, not really remember how that worked. Oh, you can also use the beams as limbs.

Oh, so now I only did a single beam, and it says here on the paper that it's still unstable. So a stable solution is also when I use it for a column, so I need to do that, and then I will do the column here. So it's one, four, six.

Yeah, now it's stable, and now I want a new solution for my AI, and what does it do? Oh, it will add there. Now I got three solutions, and all the three were in the same area, so in the smaller two-layered area. So yeah, that's something.

Yeah, how do you say that? I don't know. Sort of pattern, in my opinion, but not sure. Maybe the rest is already stable.

Hmm, do I want to accept it? Yeah, it's fine. Why not? Yeah, it does not interfere with their career space. Now, yeah, I think I want to add more.

How many can I add? Is there a limit? I'm curious, because I really don't know when it's stable or not. Yeah, I just don't know. Not that it would help.

Maybe something here. I want something over here, too. Yeah, and I hope when it's stable, that it says that it's AI.

What does it do? Oh, again, here in the center piece, so it only gives suggestions over there, sort of. Do I want this? Yeah, maybe two on the top. It's fine.

Accept, accept, accept. Yeah, maybe another beam. Come over here, or there, to there.

I'm just hoping it will say that it's just stable. But then also the question is, is it too stable? Or should it be on top of here? Yeah, I don't know what to do. What I want to do, because it's feeling, yeah, I can do more elements and then, yeah.

Is it stable or not? I don't know. What is the goal? Stabilizing it, yeah. Stabilize with minimal structural adjustments.

New suggestion. That is there. Yeah, that's also in the interior space, so that's not allowed, so discharge.

And still in this area. Yeah, I think this part is sort of fine. It's in that direction.

It's in that direction. On the top, there's something. Here, yeah, maybe this one is.

I have a beam there. Maybe change this one to a beam? Or that one? Yeah, replace. And then I also need to replace that one.

And then I want an AI suggestion. And it is, where is it? Yeah, it's again in the interior space, so discharge. But it's weird, because it's a requirement or condition.

So why does it even give that as an option? That's maybe something to look into. Or is it not? Oh, maybe it's not. I don't know.

If it's too layered, because there's no beam in between here. So then this one was maybe not interfering. So I think the one I got here, between 145 and 155, was because it's, yeah, I don't know.

I have one option left. I can just do it and accept it and then continue. I don't know.

But it says it's still not stable, so I think I still need to add things. But I can build the whole thing with diagonals and then I'm curious if it says it's stable then. But yeah, it's not the minimal structural adjustments we have then.

Maybe just add one there. No, no. I do one.

Oh, now it's in the floor. Oh, this is something I've not thought of. Yeah, I accept it.

It's not stable, so otherwise you wouldn't give it, right? But do I then want something else in the floor? No, I think I'm fine. I don't think it's good. I even think it's worse.

But yeah, I think I was more curious in what the AI would say and what he would suggest. And if he at one point would suggest it's stable, then making this stable. But yeah, I will finish then, I think.

Yeah. Are you sure you want to continue? Once you continue to the next step, you cannot go back to this step. Continue to take a few seconds.

Yes. Oh, okay.

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