Physical Computing 1 Project Proposal.

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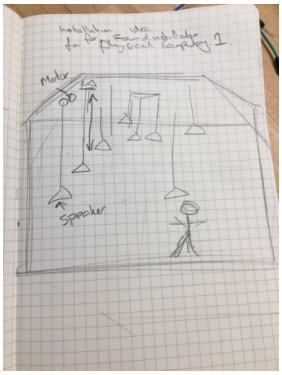
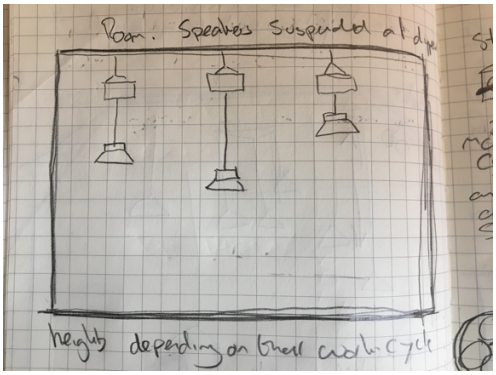
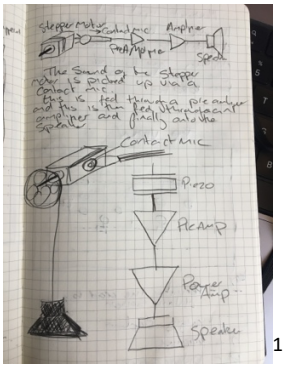






[1]

- What's your project about? Is it a game, installation, instrument, performance or something else?
My project is to be a sound installation.

- What is my project about?
As we slowly, but indeed, move into the world of automation, we see machines doing the work of humans. We see that humans are training current AI technology on human experience.
A friend told me a long time ago, “If you are self-employed, you work as fast as you can. If you are paid by the hour, you work as slowly as possible."
From my extensive work experience on the factory/shop floor as a 'wage slave' it is best to work as slowly as possible as the work never ends.
So why work faster?
It seems probable that AI would also be trained with this idea.
We have already seen it with the robot suicide[2].

The idea for my project is a group of self-automated machines designed to look like they are doing something (much like in the current workforce).

[1] Images taken from artists sketchbook.
[2] https://www.youtube.com/watch?v=6Kp5qrCExps

A self-created analog feedback loop where, when not watched, the machines lay at rest but as soon as a viewer walks into their space they start to work as they are being watched. Once the space is free of viewers, the machines return to a resting position. Replicating the current workplace and propelling it into the future.

- What does this project do? What is it for?

This project is hopefully pointing out the futility of bullshit labour.
No matter who you get to do the repetitive work they/it will seek to work as slowly as possible.

- Who is it for? What do you hope the experience will be for the participant? What do you hope they think/feel?

- How do you imagine it set up and where?

The ideal setup for this installation would be in a disused factory somewhere. Placed in and throughout the space, replicating what it would have been like to work inside a factory space.

- How does that project work? What is the setup?

This project's first iteration is an installation of small speakers attached to stepper motors, which raise up and down depending on whether a distance sensor has been broken or not. When the sensor has been broken, indicating a 'manager' present the first machine will come into action. This action will then be passed onto another machine and then another, as if being woken from rest one by one. The sound of the motor will be amplified as if to pretend that work is in action and to recreate the sound of the factory floor.

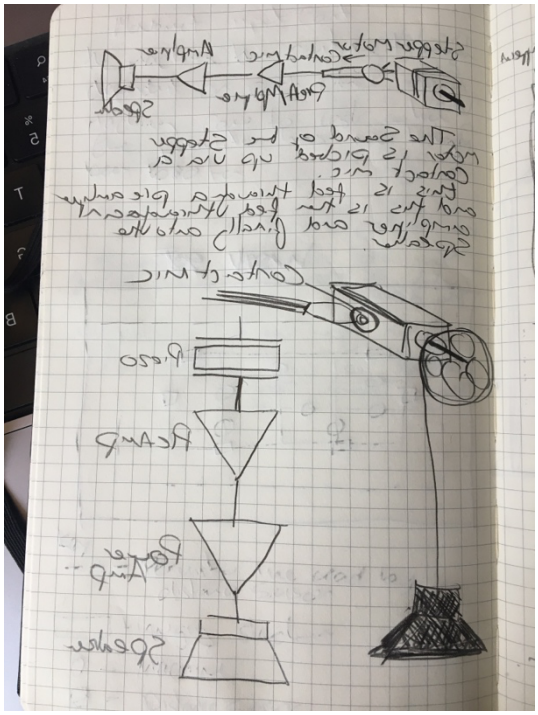
- What is the input to your system? What is the output of your system?

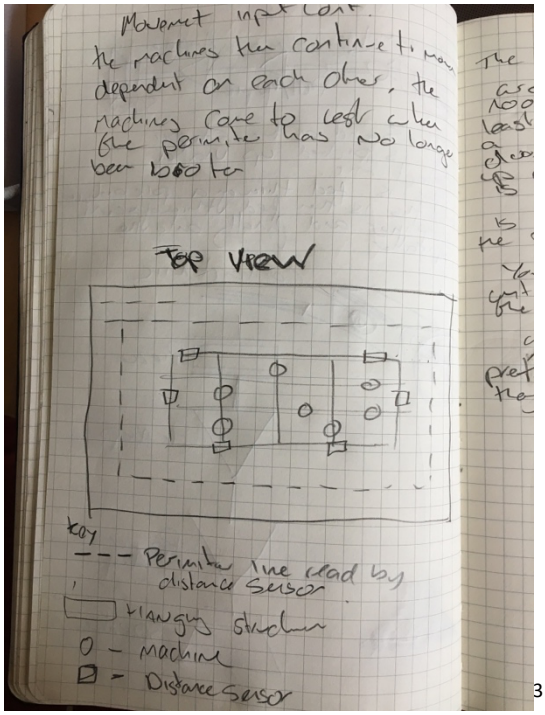
The input to my system is either a distance or a temperature sensor, along with the motor sound picked up by a piezo mic. The output is of the amplified stepper motor moving up and down.

- What technologies are you using? what hardware? what software?

The technologies used are the Arduino, stepper motors, some variation on the stepper library, ultrasonic sensor, the HCSR04 library, analog amplifiers, pickups and speakers.

- A diagram, picture, sketch photograph of the project.





[3]

- Any problems you envisage? What challenges might you face? How might you solve them?

A significant problem would be the cost of this. Multiplying the technologies would make the costs more. Also, the stepper motors and control boards. If it turns out that the current stepper motors that I'm using cannot handle the weight of the speakers, I would have to upgrade the motors.
Another problem could be making multiple distance sensors work together or even making multiple Arduino's run from the one sensor input.

- What methods you might use for testing the project?
I'm already testing the stepper motor I'm finding that the 28BYJ-48 doesn't have much torque. At least at the speed I'm running it at. Maybe that is the library? I found that the built-in stepper library can run the motor with a small weight but when I shifted to the acelstepper library the stepper wouldn't lift any weight.

- What might you need to buy or borrow?
Stepper motors, Arduinos, amplifier IC chips and speakers.

[3] Images from artist's sketchbook.

- What new skill will you need to aquire?
Possibly making enclosures for the speakers. Coding the stepper library. Manufacturing and understanding gear ratios

- Specific help: anything specific you'd like feedback of help with??
Probably, yes.