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CART 360

Mad Max: The Robot

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https://github.com/WonderPotato/CART360/tree/master/FINAL%20ASSIGNMENT_THEN

Context:

The object will be situated on a table, below the user's eye level depending on their own height. The user must be able to speak, and move to a certain extent in order to interact with the object. It is made for users that need to explore their own inside voices and understand how transmitting those voices into the outside world at a certain tone or pitch can have certain reactions that may put a damper on one's emotions or on other's in their vicinity. The object will cause a reaction to the action from the user. I want the context of this object to change one's presumption on it. This object will need to move efficiently to show its reaction to the user. The context is this, the robot will become almost sentient like, as in, and it will react to the actions of a sentient being. It will become what we fear most, ourselves, but better, with more control and finesse.

Effect:

Engaging the user to evolve their behaviour around robotics and non-human entities, by giving them feedback in the form of a moving robot on wheels. It will have a deep impact on how humans expect more from robots and their own expectations on society will evolve to respect each other and other non-sentient beings. The effect will be psychological; we tend to expect more from technology than we do from humans. I want to challenge that. I want the human to reflect on its actions and see how it affects just a simple robot. I want to cause a level of distress in the user, by showing them what little gestures can become such a giant chain of events.

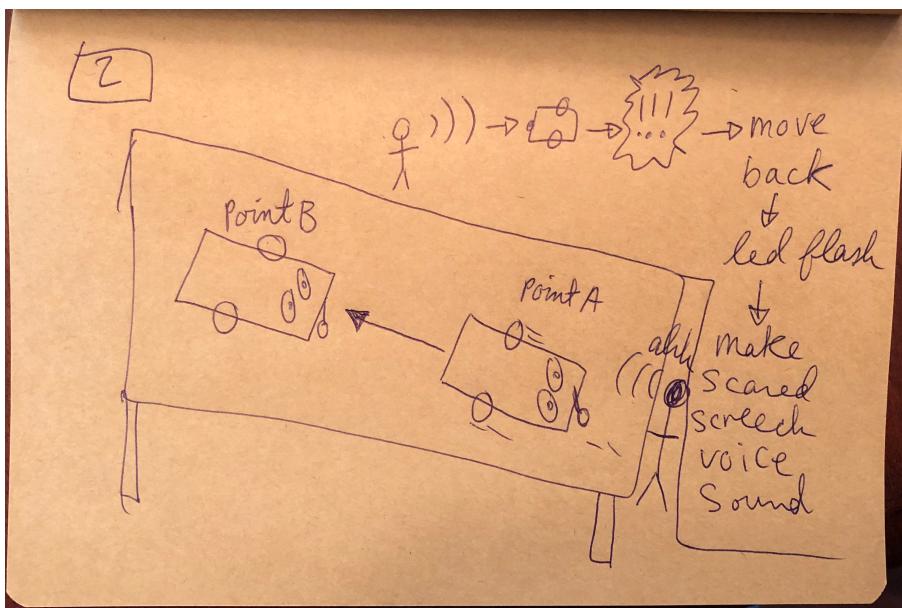
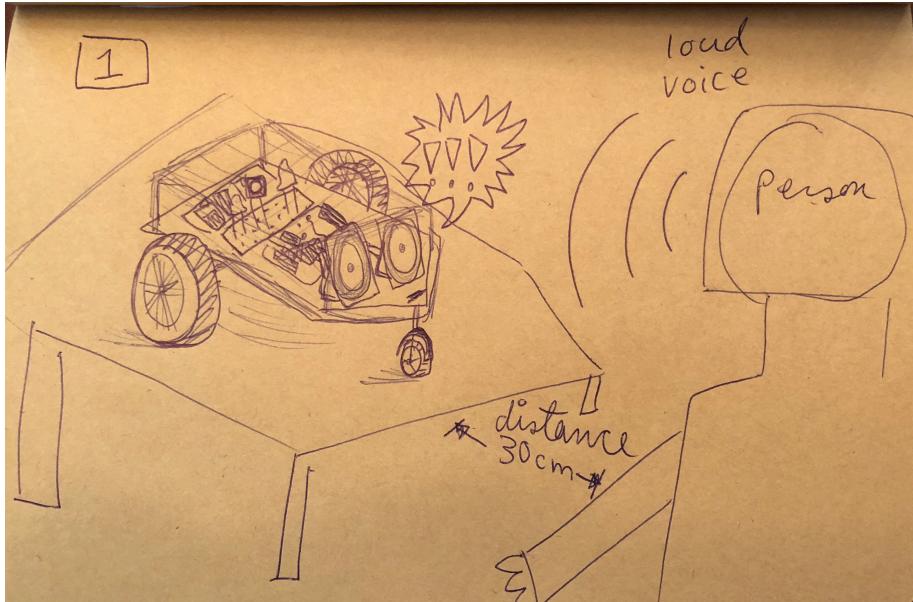
Challenge:

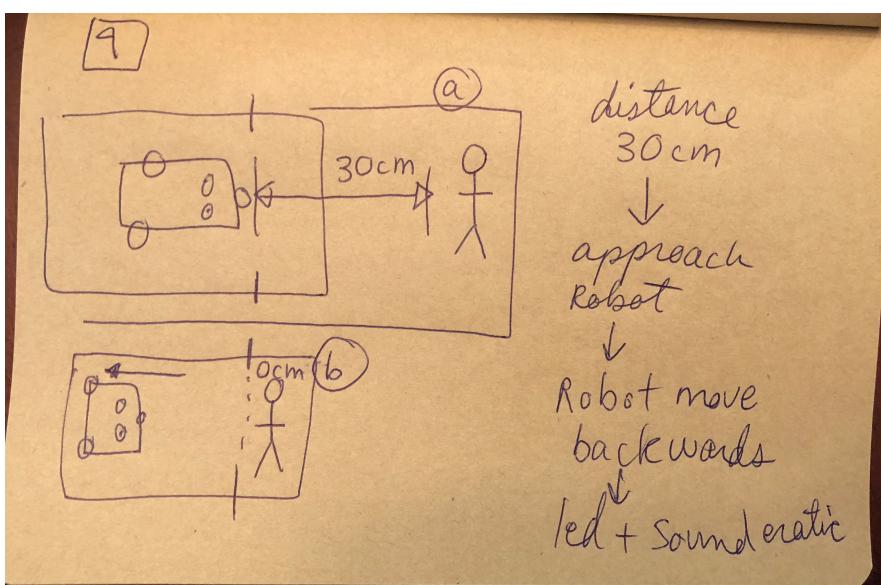
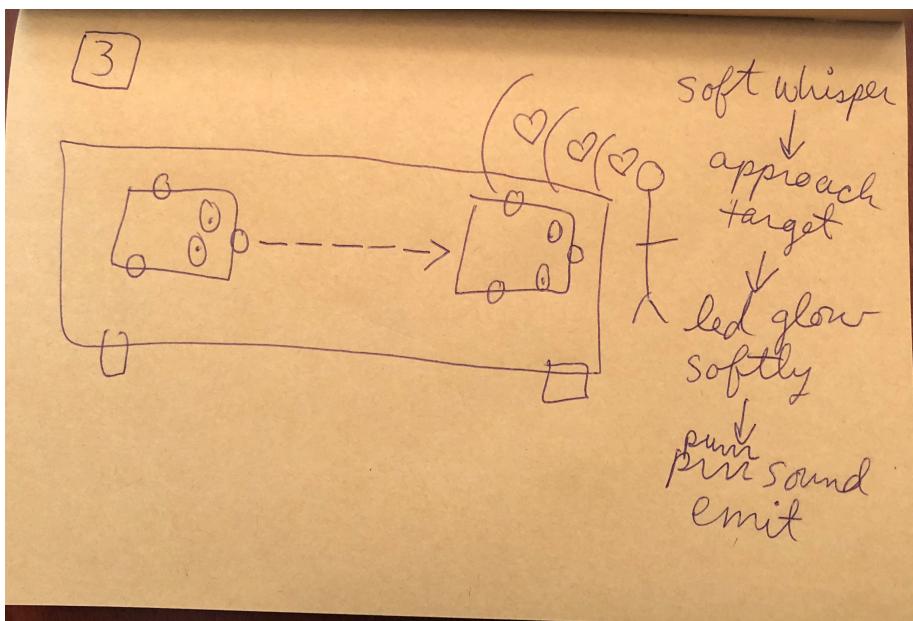
The robot will be able to receive different ranges of sound that will in return output a specific reaction; this in return can give reason for the user to engage with a different approach. For example, the user can decide to become frustrated and powerful and use a strong angry voice towards the object, causing it to scurry away and screech in return to the sound. Or if it wants to approach the object with sentiment and create a connection, one can decide to whisper softly and slowly approach the robot. This would cause the robot to approach the user, and emit a soft purring like sound, and it would flash its LED lights softly and in a glowing like manner. I also want to challenge myself, into building a moveable robot, something that can question what I am doing, and if it can bring good to our world. Is what I envision worth it? Am I going to make something I can evolve over time? What if I make a robot that just becomes constantly scared and screeches at everything in its vicinity? How would it make me and others feel then? I want this robot to have a personality, but without it becoming the terminator, or something that could haunt me in my dreams.

Meaning:

Why make a robot that responds to a human's command? Why not make something that we can interact with instead of bossing around? Do we perceive our society as the kings and gods of this earth? If I could make a robot that would engage the senses of empathy from the human user, could this evolve our way of thinking as a society for the future? Creating a robot that gives pause to a human before making a decision or action, this would it not improve our society and its function on its environment? Allowing a robot to simply make us question our actions and their results on our world, this seems meaningful, and even more so powerful and required in order for a society as obnoxious as ours to become better amongst our world and ourselves. The robot will challenge whom humans think about "lesser" creatures of this world. The meaning behind a robot; to make it do things a human finds menial and of lesser value for our time. To make a robot do our chores and organize our lives and events, that's just robotic enslavement to a certain extent, especially if we give robots and artificial intelligence a sense of personality and responsibility. Let's change the way we perceive robots!

Interaction storyboard





Example #1

https://create.arduino.cc/projecthub/msb4180/2wd-voice-controlled-robot-with-arduino-and-bitvoicer-server-310f9a?ref=search&ref_id=servo%20motor%20and%20wheels&offset=4

This project uses voice commands for the moving robot. It only keeps the narrative of commanding a robot, and telling it what to do next, because it doesn't have the ability to decide or react accordingly completely on its own. They set up different wheels, and angles to allow the robot to move around. The voice controls the robot.

Example #2

https://create.arduino.cc/projecthub/faweiz/arduino-smart-car-9496c4?ref=tag&ref_id=voice%20control&offset=14

This project uses smart controls, avoids obstacles, and moves around different places. This uses infrared remote controls, and iPhone app. It's all about controlling the robot. This robot will do as it is told. It is not able to challenge its controlling human. I want to avoid this. I want to use this project as reference to their guidelines of coding and building. But mostly the whole theme of this project is the opposite of what I want to achieve. It will move because I let it decide. This project controls the robot completely.

Example #3

<https://create.arduino.cc/projecthub/peejster/enter-the-house-like-a-sith-lord-337d91>

This project uses motion sensor to trigger a track to be played. It is quite entertaining, and uses components that I intend to use, and also gives me feedback on what to expect for coding and fabricating. This project brings the fun of star wars, and its iconic tunes and themes. They make use of sensors, and arduino boards, and mp3 shield, and speakers. This brings a lighthearted side to the sensors and triggering a tune. It's a happy project, and it brings a lot of valuable information for my project and its many components.

How will this project be better than the above three examples?

Well first these projects are way above my expertise level, so I can't beat them on the technology and wow factor, but I can challenge them on the theory and meaningfulness. Also these projects have this rigid structured lifeless theme to them, which is something I do not aim to reach. I want to question and challenge these stereotypes on robotics, and commanding "lesser" creatures in our world.

So this project will reach different levels of "wow factors", by not only will it be voice interactive, the robot can reply to the user depending on the type of interaction given by the user. So instead of commanding the robot to do certain useful actions, one will interact with it as if the robot could actually express itself towards the person. By having a proximity sensor on itself, the robot can decide if it wants to fight or flight instinct to kick in. otherwise it would just wait for the human to give its next command. By the led lights and the sound being emitted and its moving back and forth, it becomes this little living creature that one would not want to become so powerful over, it would want to gently approach it.

When the robot is on the table, it will detect the user approaching it, and in return it will retract depending on the loudness of one's voice. By backing up, it will flash its LED lights in a frantic behavior. It will do the opposite when softly approached and also with a soft tone of voice, it will approach and will emit a purring sound. Its LED lights will slowly turn on and glow.