ECE Senior Design Weekly Report

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Team Name: The Globetrotters Lab Section: 4

Week’s Task: Finishing up the schematic for dismantled levitation model and beginning schematic for our project needs.

Results: This week I finished up drawing up a schematic of the model that we disassembled last week to the best of my ability. Although missing components and unknown connections for various parts, examining the schematic allows us to roughly how the levitating model works. After getting a better understanding of how a pair of NPN and PNP transistors are coupled with a coil, thus controlling the current flowing through each coil, I thought the next step was to start developing our schematic for our project. I stumbled upon a patent for an already existing levitating device and have since been looking into other patents to help guide me in the correct direction in drawing our schematic. I have also tried my best to research into a company called Crealev which produces magnetic floating objects such as lamps. We found that Crealev devices can support weights up to 1kg and more and also utilizes a ring magnet, perfect for our project’s requirements. We had in mind to purchase one of their products in order to see how they function, however, we found that they are quite pricey and out of our budget so we are not able to. Lastly, if we need to make our own coils for our project, I have studied and researched the proper steps into developing a suitable one which may be of use in the future.