

ECE Senior Design Weekly Report

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Date: 2/7/17

Team Name: The GlobeTrotters

Lab Section: 4

Week's Task: Continue research on the levitating globe. What are some ways to make the ball levitate? How can we control the ball's motion once it is in the air?

Results: There are multiple ways to make a ball levitate in the air. The most common way is using electromagnets to keep the globe afloat. Other ways of keeping the ball in the air include air or water jets and using a hot air balloon device. The next problem would be turning the ball once it is in the air. I believe the easiest method would be to try and float a projector with the globe so the only thing that would be moving is the image in the projector. Other ways include using DC motors to constantly move the ball and change the speed or stop when designed to do so. Additionally we will need sensors to allow outside interaction without actually touching the globe. we will want smaller sensors so less power is used and we add it right to the circuit. Having a motion sensor would be the cheapest and easiest solution. Other options include voice control sensors and or both sensors. Links to the electromagnetic floater and motion sensors are below.

https://www.google.com/amp/www.instructables.com/id/Electromagnetic-Floater/%_page%3Dtrue?client=ms-android-verizon

<https://www.google.com/search?q=micro+motion+sensor&client=ms-android->

verizon&sa=X&biw=360&bih=560&noj=1&tbs=vw:l,ss:44&tbm=shop&srpd=16621027
376370560240&prds=num:1,of:1,epd:16621027376370560240&ved=0ahUKEwiys5Tdq
oHSAhVR7mMKHY94DysQgjYI1wQ

<https://www.google.com/search?q=micro+motion+sensor&client=ms-android->

verizon&sa=X&biw=360&bih=560&noj=1&tbs=vw:l,ss:44&tbm=shop&srpd=11169458
631532428271&prds=epd:5807064187545250021,cid:4936213049893069631&ve
d=0ahUKEwiys5TdqoHSAhVR7mMKHY94DysQgTYI5wQ