

Potential Well

Class Fourteen Summary

PHY 230

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1 Time dependant Schrodinger Wave Equation Application

I thoroughly enjoyed working on this assignment. First, we began working on a simple project that we called ‘Line’, in which we learned how to draw a line on a screen, give it a value for the position, and move it by dragging it on the screen. We also learned how to trigger sounds, and how to set an image as the background of a screen.

We then reviewed the theory for the time dependent SWE, and then were given some coding tips to make an app for a potential well using the theory. While working on the app, I initially attempted at drawing a stationary potential well, energy line, and a standing psi wave. I believe that this was the most challenging part of the project for me, and had several bugs that were difficult to pick out. However, NSLog statements through out my code saved the day. They helped me figure out that I had some of my formulae incorrectly inputted.

The second bit which I found tricky was the dragging of the psi wave. I managed to get it to drag, but was just very buggy. I would move the wave, and instead of moving with my cursor, it would instead flip. After exchanging several emails with Dr.Lindner, I realized that I had my formula to update the psi scale incorrect.