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EE4341 Laboratory 6

HID Mouse Control USB

In this lab we made use of the USB harmony integration and used our microcontroller as a device in respect to the windows system that was accepting input. In order to do this we had to prepare the appropriate frames required to communicate over USB and ensure that the correct data for movement in X,Y directions as well as flags for whether or not a certain button was depressed or not. This being configured correctly resulted in a function USB device that could communicate effectively with the windows system that we were testing with. The longest portion of this lab was setting up the Harmony interface and ensuring that we had the correct microcontroller configuration as well as the switching it from the common 512L used in lab. For accomplishing the demo portion of this lab, it was required to edit the direction tables that were used in just a single array. The way I completed this demo was to create two separate arrays, one for X and one for Y that would make the organization of movement smoother and more understandable; however, in doing this it took some getting used to for understanding what directions on the input mapping corresponded to the directions used by the windows drivers receiving the information. I found it most difficult in completing the bonus portion of the lab for with my movement scheme it became very tedious. Otherwise this was a pretty smooth lab.