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ece103L Thursday Section
Lab 3 report
Due: 5/3/2023

lab3_1.c

- Copied code directly from class lecture on 4/20 and 4/25. This included initializing the i2c, and reading gyroscope data. Also included initializing of gyroscope sensitivity.
- Self wrote simple functionality of printing "Up," "Down," "Left," and "Right" when certain gyro data thresholds were surpassed.

lab3_2.c

- Copied the "key_demo_ble" folder.
- lab3_2.c was first copied from ble_hidd_demo_main.c. Edited hid_demo_task function, removing the lines that changed the volume and inserting a function, esp_hidd_send_mouse_value, to move the mouse across the screen.

lab3_3.c

- Copied the "key_demo_ble" folder.
- lab3_3.c was first copied from ble_hidd_demo_main.c. copied parts of code from lab3_1.c to initialize i2c and icm-42670 and include reading gyro data.
 - Inserted gyro reading functionality in the hid_demo_task function while loop.
 - Implemented acceleration by using self-adding variables i.e. that would increase the mouse shift if the mouse was already moving in that direction i.e. $move_x = move_x + 20$.
 - Move_x and move_y variables are limited to min and max out at -127 and 127 since the esp_hidd_send_mouse_value uses 8 bit signed values.