

APPENDIX

A. Circuit Diagram

The circuit diagram for the implemented system is provided in Fig. A1. The system uses a FRDM-KL03Z microcontroller and acceleration data is obtained from the inbuilt MMA8451Q digital three axis accelerometer. The step count is displayed on an Adafruit minicolour OLED display.

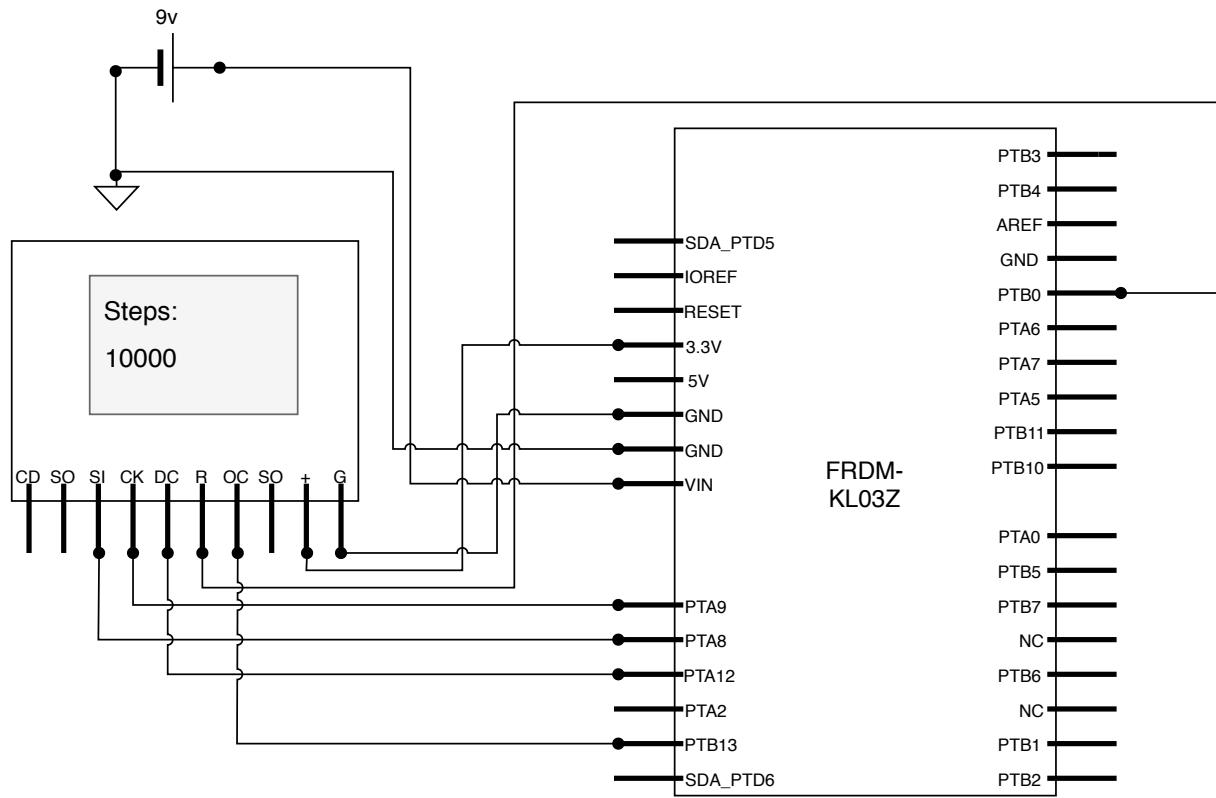


Fig. A1: Circuit diagram of the implemented system

B. Hardware Implementation

Photographs of the implemented hardware are provided in this section. Fig. A2 provides a top view of the implemented system and Fig. A3 provides a view of the underside of the device.

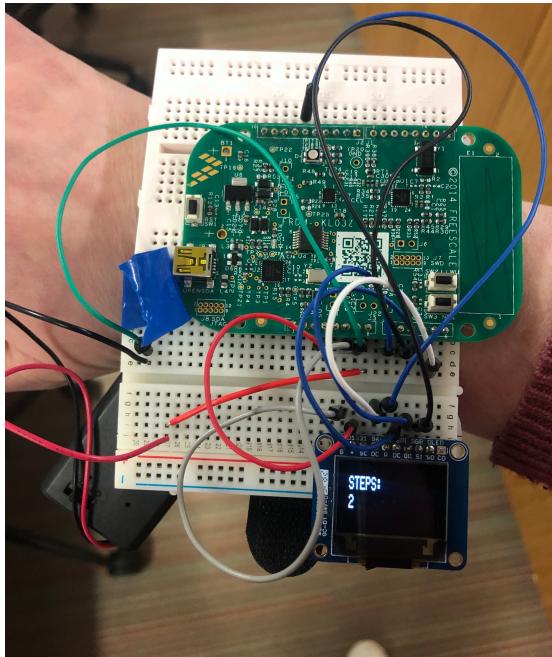


Fig. A2: Photograph of the top of the device while counting a user's steps



Fig. A3: Photograph of the bottom of the system showing the strap used to secure the device to the user's hand