What differentiates diabetes from other diseases is the ability of the patient to control the disease; proper diet, frequent exercise and adequate monitoring can significantly reduce the effects of diabetes. While the first two factors are important, it is the third that is truly the most beneficial. Being able to correct for high or low blood sugar levels is vital for a diabetic’s health, making a blood glucose monitor a diabetic’s most useful tool.

The Android QuickDraw aims to fill the niche created by the recent advancements in smart phone technology and the lack of innovation in glucose meters. This is accomplished through the use of a discrete module, which communicates to the phone via Bluetooth, and an Android device. What makes the QuickDraw unique is that it gives diabetics so much more control of their condition. Users have constant access to their data should the need ever arise, and since the data is stored in an application on their phone they can view it quickly and discretely. In addition to its mobility the QuickDraw possess’ functionality not available on other glucose meters; glucose level, date, time of day, location etc. are all available at the touch of a button rather than having to scroll through a long list of results like current meters. Users will easily be able to view and organize their glucose readings.

The external device is comprised of housing for the test strip, an electrochemical sensing chip, a microcontroller, and a Bluetooth modem. Together the components measure a current (proportional to the concentration of glucose in the blood) produced from a chemical reaction between the glucose in a blood sample and reagents on the test strip. The current which is proportional to the concentration of glucose in the blood is converted to a voltage and sent to the phone. From there users can save and store their results as desired.

The application is intended to be as user friendly as possible. Emergency data such as doctor information, emergency contacts, and medical conditions may be inputted if desired by the user. The app is designed for easy data manipulation; stored data can be accessed, managed and reviewed, in addition data can be uploaded onto a Google account where it can be easily sent to care givers.