

NON-INVASIVE GLUCOHEMOMETER

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Problem: Invasive methods of hemoglobin and glucose monitoring resulting in pain and time taking.

Product: A non-invasive device which is portable. easy to use and gives instant results.

Initial Prototype:

Measurement of the redness of palm using image processing and device for glucose measurement.

Business:

Consulted doctor Nirmala at KIMS, doctors in ESI RC Puram, and talked to around 100 patients in the hospital.

Our marketing channels: Pharmacies, through online websites

Technology:

Image Processing
Arduino IDE
Regression Analysis
Android Studio for mobile app

Customer Stories:

Vijay Reddy(Sri Sai Krupa Laboratories) was very interested because of the cost feasibility of the device and suggested to make it portable. Doctors at ESI hospitals suggested us ways to make it more accurate.

Progress:

- Week1 – Entered with a different idea.
- Week2 – Changed the idea to non-invasive gluco-hemometer
- Week3 – Consulted doctors and learnt the concepts regarding them.
- Week4 – Started building prototype for glucose monitoring.
- Week5 – Then worked on hemoglobin and obtained redness values
- Week6 – Measured hemoglobin values of people invasively and working on regression analysis

Contributors:

Dr.VijayaKumari ma'am always supported in providing domain experts and other support.

Dr.Nirmala(KIMS) gave inputs about the existing methods, challenges in it.

Vijay Reddy(Sri Sai Krupa Diagnostics, Moosapet) provided us with an invasive hemoglobin device.