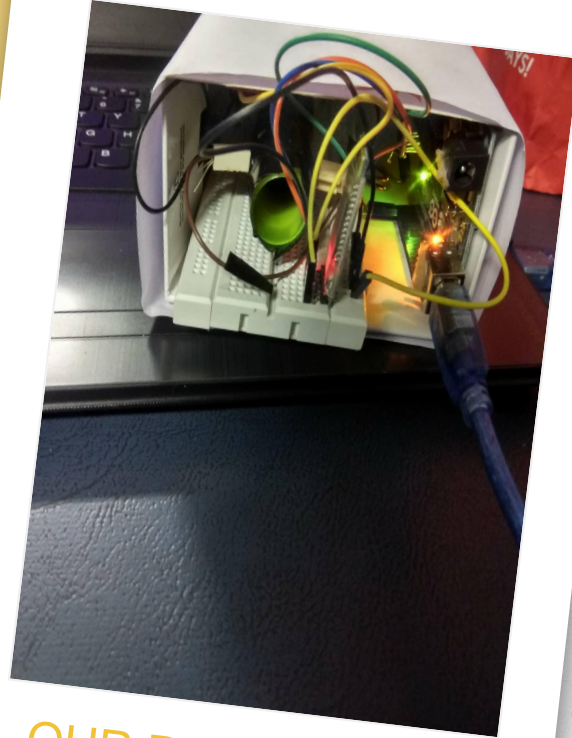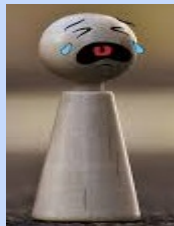# NON INVASIVE GLUCOSE MONITORING

IIT HYDERABAD

Srihas,Srihith,Akshita,Abhishek,Mourya

OUR PROJECT

WHY NON-INVASIVE?

442 million Diabetic Patients

Painful and uncomfortable during blood sampling.

Can lead to fatal infections.

An average diabetic makes less than 2 tests per day instead of recommended 4-7 tests.
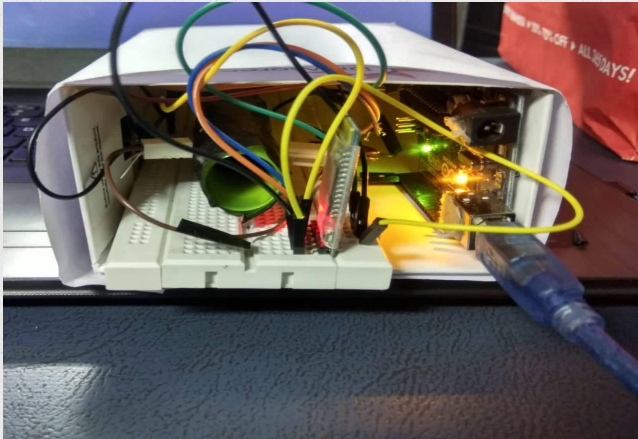
INVASIVE GLUCOSE MONITORING

We used 940 nm NIR led and photodetector to check the variation in glucose concentration.

Procedure:
So to increase accuracy with the help of our campus doctor Anil Kumar we were able to span the most

essential glucose ranges (60 -210mg/dl) using around 35 live subjects from hospital and few students from

our campus too.Finally we attained 70% accuracy.

Observations:

The subject should not change the way he insert his/her finger.

The subjects skin thickness and colour affects the the solution.

The LEDs and photodetector angles also must be fixed.

Proof Of Concept

Invasive Value(mg/dl)	Non Invasive value
122	97.60
135	141.02
126	128.31
118	123.09
211	189.91
102	100.08
89	81.31
176	188.00
98	107.80
123	114.25

Business Model

Cost Structure
Cost:550INR component cost.

Market Strategy
Collaboration with hospitals to conduct the non invasive test along with the invasive on the patients.

Our Unique Outreach
Our way of approaching the customers by establishing a wide spread network through doctors.