



M.KUMARASAMY
COLLEGE OF ENGINEERING

NAAC Accredited Autonomous Institution

Approved by AICTE & Affiliated to Anna University
ISO 9001:2015 & ISO 14001:2015 Certified Institution

Thalavapalayam, Karur – 639 113.



ANODYNE BLOOD GLUCOSE METER

Submitted By

LAKSHANA K 927621BEC099

GUIDED BY

Dr. S.VIMALNATH., ME.,Ph.D.,

INTRODUCTION

- The Anodyne blood sugar glucose monitor represents a remarkable advancement in diabetes management.
- By removing the need for finger pricking and offering pain-free, continuous monitoring, this technology empowers individuals with diabetes to take control of their health .

PROBLEM STATEMENT

- The problem statement for blood sugar meters is that people with diabetes or other conditions that affect blood sugar levels need an accurate and reliable way to measure their blood glucose levels in order to manage their condition effectively.
- To find the solution for measuring blood glucose without pricking of hand.
- To find the connection protocols can be used in the product and offers the ability to access control

OBJECTIVES

The objective of a Anodyne glucose monitor without pricking of hand is to provide a painless and convenient way for people with diabetes to monitor their blood glucose levels.



EXISTING SYSTEM

1. Blood Glucose Meters
2. Continuous Glucose Monitoring (CGM) Systems
3. Flash Glucose Monitoring
4. Insulin Pump Integration
5. Mobile Apps



PROPOSED SYSTEM

A proposed solution for Anodyne blood glucose monitoring is through **breath analysis**.

1. Breath Sampling: A person breathes into a specialized device or sensor that collects their breath sample.
2. VOC Analysis: The device analyzes the breath sample to detect specific VOCs that are indicative of glucose levels.
3. Data Interpretation: The collected data is processed and interpreted using algorithms to estimate the blood glucose level.

COMPARISON

- Traditional blood glucose monitoring methods have long been a barrier to achieving optimal diabetes management.
- Regular finger pricking can lead to discomfort, pain, and even anxiety for many individuals resulting in irregular monitoring.
- The Anodyne blood sugar glucose monitor is to overcome these advanced technology to measure blood glucose levels without the need for needles or finger pricks.
- Instead, we found a new method to find blood glucose with gas sensor by continuously and conveniently.

MODULES IDENTIFIED

HARDWARE



ARDUNIO ESP8266



MQ2 GAS SENSOR

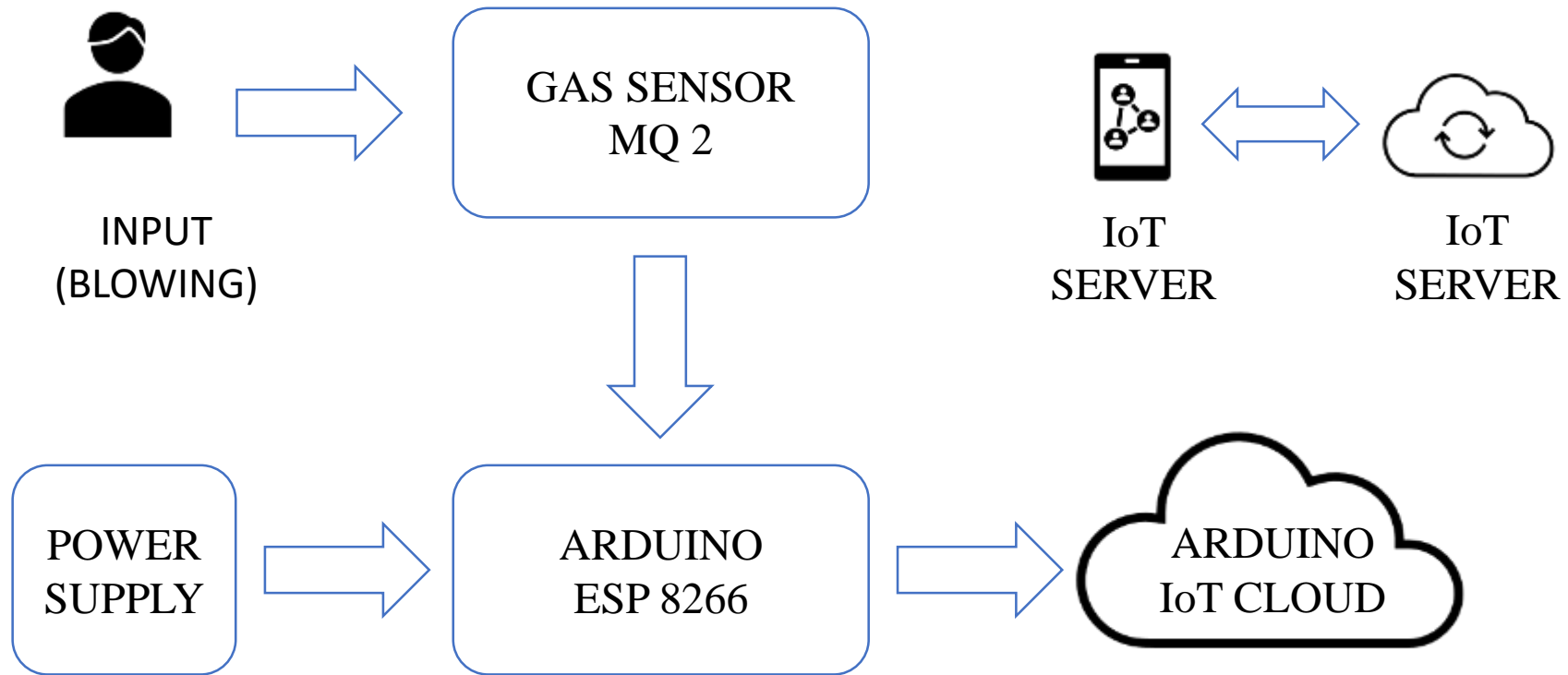
SOFTWARE

ARDUINO :

It is used to code the ESP 8266 to transfer the data to Arduino IoT cloud.



BLOCK DIAGRAM



PLAN OF WORK COMPLETION

- STEP 1: Without Pricking of hand to measure glucometer
- STEP 2: Scopes for Diabetes Patient
- STEP 3: Medical resources
- STEP 4: We assigned each modules
- STEP 5: Estimation of the project is Rs.450
- STEP 6: Source_code is Done
- STEP 7: Lag in interstitial fluid

CONCLUSION

- The project using Arduino that meet our objectives of the project with long range and increases the network lifetime.
- It is an effective method to monitor blood glucose level which is made by wireless sensor networks using Arduino that meet our objectives of the project with long range, and increases the network lifetime.
- However, Sensor networks are considered as the key enablers for the different application like glucose monitoring and controlling, hospitals etc.

REFERENCES

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7731259/#!po=6.78295>
- <https://diabetestalk.net/blood-sugar/breath-glucose-meter>

A white, three-dimensional ribbon with a slight shadow is positioned diagonally across the frame. The words "THANK YOU" are printed in a bold, black, sans-serif font on the upper surface of the ribbon. The ribbon has a folded, loop-like appearance with pointed ends. The background is a solid, vibrant teal color.

THANK YOU