**SERVICE AGREEMENT**

This agreement is entered into by and between:

Client:

Gerald Christian Rey R. Balindan

Hanns Jaspher A. Elalto

Paul Francis B. Masangcay

Jeroh Lee M. Mojica

AND

Developer:

John Patrick D. Buco

Date Signed: 07/16/2025

Project Title

Design and Development of IoT-Enabled System with Near-Infrared (NIR) Spectroscopy for Determining the Quality of Sugarcane Juice (Saccharum officinarum)

Project Timeline

Start Date: July 16, 2025

Completion Date: on or before December 2025

The developer agrees to deliver a fully working prototype, accompanying mobile web application, and support until project defense.

Total Project Cost

|  |  |  |
| --- | --- | --- |
| Component | Cost | Description |
| Hardware Materials | ₱5,500 | ESP32, NIR Sensor, LCD, Battery, Buttons, Casing, 3D print, wiring |
| Firmware & IoT System Dev / ML Integration | ₱25,000 | ESP32 code, scanning logic, Wi-Fi, sensor/ML integration |
| Mobile Web Application | ₱10,000 | Real-time sync, historical data, modern UI |
| Testing + Calibration | ₱7,500 | Testing and calibration based on provided samples |
| System Integration + UI/UX | ₱7,500 | LCD Interface, responsive casing, power circuit |
| Support (until defense) | ₱4,500 | Final adjustments, bug fixes, guidance during defense |
| Total | ₱60,000 |  |

Payment terms

|  |  |  |
| --- | --- | --- |
| Milestone | Amount | Due Date |
| Down Payment | ₱10,000 | Upon contract signing |
| Final Payment | ₱50,000 | Upon final prototype delivery |

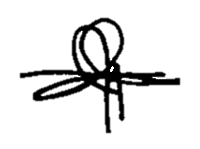
Deliverables

* Fully working IoT-enabled prototype
* 3D-printed casing
* Functional firmware (ESP32)
* Working machine learning model integration
* Backend API
* Mobile web app (React JS)
* Defense support until project completion

Terms and Conditions

* All source code, hardware, and project materials will be turned over upon final payment
* Any additional features or requests not specified in the agrees scope may incur additional changes

Signatures



Developer:

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name: John Patrick D. Buco

Date: 07/16/2025

Clients:

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name: Gerald Christian Rey R. Balindan Name: Hanns Jaspher A. Elalto

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name: Paul Francis B. Masangcay Name: Jeroh Lee M. Mojica

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_