

## Quotation for Engineering Service: Prototype Fabrication Support: Adding functionality.

Client: **William Laude**

Project: Smart Cage Monitoring

### Scope of Services:

Leading the hardware design and implementation.

Updating both the firmware and the mobile app.

Installation and setup of the electronics system.

Sourcing of components to be used in the project.

Review and analysis of project requirements and objectives.

In-depth research and literature review relevant to the thesis topic. [Optional]

Assistance in formulating a clear and concise thesis statement. [Optional]

Guidance in structuring the thesis document, including chapters and sections. [Optional]

The total cost for the Thesis Prototype Design Service is **Php 23208.5**. This includes all the services, and additional consultations or revisions as necessary to ensure a high-quality project. Additionally, we offer a **100% cashback guarantee** if the project is not completed.

### Payment Terms:

A **50% [11604.25 PHP]** upfront payment is required to initiate the services. Another **30% [6962.55 PHP]** payment once the PCB design and electronic hardware are completed. The remaining **20% [4641.7 PHP]** will be due upon completion and successful setup of the electronics project.

### Project Timeline:

The estimated project timeline assuming we start today is **Feb 29, 2024**. Please note that this can be adjusted based on your specific needs, the start date of the project, and any revisions required.

### Terms and Conditions:

The client retains ownership of all project materials and intellectual property.

All communications and project materials will be kept confidential.

Any additional expenses, such as hardware components or software licenses, will be discussed and agreed upon.

Please let me know if you have any questions or want to discuss the terms and conditions further. I am committed to providing you with valuable support to ensure the successful completion and installation of your electronics project.

## Cost Breakdown:

| Product Development | Tasks  | Price            | Estimated Timeline | Remarks   |
|---------------------|--|------------------|--------------------|---|
| Hardware Design     | Creating the schematic capture   | 2500             | 2                  | All hardware modules connected to a prototyping board to check if the customer requirements have been met. Output design files schematic capture, and electrical layout.                |
|                     | Add functionality:<br>1. Feeder<br>2. Watering<br>3. Smoke Sensor<br>4. Electronic Door lock                                     | 5000             |                    |   |
| Software Design     | Update the firmware development  | 8000             | 1                  | Add the notification and control buttons for the feeder, watering, smoke detection, and door lock program to the MIT app inventor. Output design files are flowcharts and code.         |
|                     | Update the mobile app.   |                  |                    |   |
| System Integration  | Assembly: Hardware and Software integration  | 3000             | 1                  | Miscellaneous fees such as delivery fees, labor costs, installation, etc.   |
|                     | Testing: Validation and Verification   |                  |                    | Ensure that the system is working based on the agreed specifications. Check if all the sensors are measuring accurately, including the e-door lock, feeder, watering, and smoke sensor. |
| Materials           | Original Diymore DC 12V 14RPM 2 Wires High Torque Electric Geared Box S30K Reduction Motor                                       | 360              | Not applicable     | Used to the automatic feeder.   |
|                     | 12V 2A 5A 10A 15A 20A Centralized Power Supply 12V 60W Power Adapt AC TO DC for Led Sign CCTV Camera                             | 322.5            |                    | Used to power the electronic door lock and feeder.  |
|                     | Beautiful Homes Store Catch Door Electric Lock Electronic Latch Lock High-Quality 12V Electro-magnet Release Solenoid Slant Slug | 516              |                    | electronic door lock  |
|                     | Pet Dog Nozzle Hanging Automatic Portable Water Dispenser Pet Drinker Head Dog Automatic Water                                   | 180              |                    | Water feeder for the pet.   |
|                     | 1pc Ultra Quiet DC 12V 3.0m 240L/H Brushless Motor Submersible Pool Tank Water Pump for Aquarium                                 | 330              |                    | Water pump used for water feeder.   |
|                     | Acrylic, wood, sealant, bolts, and nuts, etc.  | 3000             |                    | Used to build the electronic feeder.  |
|                     |  |                  |                    |   |
|                     | <b>Total</b>   | <b>23209 PHP</b> | <b>4 weeks</b>     |   |

Thank you for considering my services.

Sincerely,



Engr. Bryndell S. Torio, ECT  
+63 936 938 6562

**Bank Details:**

Bank Name: Bank of the Philippine Islands (BPI)

Bank Address: BPI Laguna Technopark PEZA, Admin Building 1, Laguna Technopark, Biñan, Laguna, Philippines

Account Name: Bryndell Torio

Account Number: 1380019511

**E-Wallet Details:**

E-Wallet Service: GCASH

E-Wallet ID: 09369386562

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