**Request For Quotation (RFQ)**

**MacroFab <> Nikola Labs**

**MacroFab Capabilities**

Capabilities

* + Please describe the service offerings and capabilities relevant to manufacturing the products described above.
    - MacroFab has extensive experience in assembly and verification testing that aligns with the requirements of the VERO line.  We will effectively handle your fabrication processes employed with both surface mount technology assemblies and through-hole components – taking into consideration that once the lithium cell is installed in the sensor module, the circuitry is considered live and will be handled as such.
  + Please describe your capabilities to program firmware to microcomputers.
    - MacroFab has full capabilities to program firmware and can procure the necessary cables, fixtures, and software to ensure it is done correctly.
  + Please your processes for testing products in throughout the fabrication steps and at their conclusion.
    - MacroFab adheres to industry recognized standards such as ISO9000 and IPC standards for manufacturing. For quality checks, we use AOI(Automated Optical Inspection) and XRAY Inspection of BGAs and QFNs, in-circuit tests, and visual inspection.
  + Do you provide any design support, if so, is this an extra cost?
    - MacroFab will complete extensive design package review with our Engineering & Solutions Architect team upon design submission. To begin, we will host an introductory meeting to have a more detailed scope conversation with our Engineering team once designs are received, Sales Engineers, NPI Engineers, Program Managers, Test Engineers will be assigned to a project at the end of the RFQ stage.
    - First Article Inspection & Analysis is completed before moving to production.
    - MacroFab also provides design support for test equipment.
  + What, if any, services are outsourced, and to whom?
    - MacroFab manages the entire manufacturing process for our customers.
* Experience
  + Do you have experience in manufacturing industrial products?
    - Yes.
  + Do you have experience in manufacturing products for Class 1 Division 1 or similarly classified hazardous locations (hazloc)?
    - Yes.
  + Have you handled active/live electronic assemblies during the normal course of fabrication?
    - Yes. Especially during functional testing.
  + Please include relevant clients, projects, and case studies related to this request. (customer reference could be requested later.)
    - Attached and sent earlier to Patrick.
* Process
  + What quality assurance (QA) processes do you have in place? Do your QA processes adhere to industry recognized standards, such as ISO9000?
    - MacroFab QA is done on every assembly. A report COC is sent on every assembly. Testing process is case by case because not all products are tested. This is calculated at time of quote for those products that are to be tested. An NPI meeting is held to address those concerns. CAR's are done after a product goes through a root cause analysis and deemed a violation , then we create a CAR.
    - MacroFab guarantees the quality of our workmanship after manufacturing.
      * If in the rare instance, your boards have issues with the workmanship, we’ll do whatever it takes to get it right – for free. Our service team will provide transparent communication every at every step and your information is 100% confidential; your intellectual property is secure. Our aim is to give you the best electronics manufacturing experience at globally competitive prices, with lower lead times and higher quality, all backed by an experienced team.
  + What is your reporting and review process?
    - The MacroFab platform is designed to provide you real-time visibility to the progress of your manufacturing project. In addition for complex projects, MacroFab Program Management will conduct regular production progress meetings with your team.
  + Describe your process for adjusting schedules, budgets and/or direction (if needed).
    - MacroFab will confirm with Nikola on a production schedule. Once partnered, our Program Management team will conduct regular production progress meetings with your team. Any changes will be reviewed through engineering change notices (ECN) for agreement and execution through engineering change orders (ECO). We are built for changes in production demand. We can scale up or scale back product production for clients.
  + Describe your process for working with rapid growth companies like Nikola Labs.
    - Through the MacroFab Manufacturing Cloud, we can provide elastic manufacturing capacity for customer’s manufacturing needs. The MacroFab platform will leverage an algorithmic approach to match your production job to the ideal factory lines with the capabilities and capacity to handle the manufacturing run. This elastic approach allows MacroFab to easily scale manufacturing runs from a few units to millions of units and back down to a few units without any challenges.
  + Describe how you handle changes in production demand?
    - MacroFab is built for changes in production demand. We scale up or scale back product production for clients. Based on the outlined production schedule, should a release or batch change, we coordinate that with your PM and sales team.
  + Do you offer value added engineering services to take our design from its current state to a more mutually beneficial economic state? If so, please provide a description of what is available and any associated costs.
    - MacroFab can make suggestions on build and alternates.
  + What processes and resources are in place to handle supply chain shortages?
    - The MacroFab Strategic Sourcing team works with our approved vendors to uncover opportunistic supplies of otherwise long-lead time components. These options are presented to you as ECO options for execution.
* People
  + - Misha Govshteyn- CEO
      * Co-Founded and built Alert Logic into one of the fastest growing companies in the security industry, with over 4,000 customers, $140M+ in revenue and 650 employees. Served as Founding CEO, CTO, Chief Strategy Officer and SVP of Products/Marketing, raising multiple rounds of capital, resulting in acquisition to Welsh, Carson, Anderson & Stowe in 2013.
      * Led the company through a strategic pivot to become one of the earliest cloud security providers with hundreds of customers in AWS, Azure and GCP. Completed 3 technology acquisitions to expand the product portfolio. Mentored several successful startups in the Techstars network. Investor and Member of Board of Directors at MacroFab, one of the first digital platforms for electronics manufacturing.
      * Today he is focused on the next wave of disruption in the $560B electronics manufacturing industry at MacroFab
    - Chris Church - CPO
      * Co-Founded and created MacroFab in 2013 - after previously founding Alert Logic, a security-as-a-service company that has been on the Houston Business Journal Fast 100 List, for nine years as chief architect. MacroFab, his new venture, was founded in October 2013, and in March, it closed an angel round of $700,000 that coincidentally, was funded by other Alert Logic founders, he told the Houston Business Journal. Church contributed $100,000 in that round.
      * Church’s passion led to the creation of - MacroFab, using hardware designs from companies, and then sources, manufactures, programs and ships products to the consumer.
      * Our target market is primarily startups or small businesses that don't have the capital to spend on expensive hardware. Some of MacroFab's clients include a pinball machine maker in Wisconsin and a United Kingdom-based Kickstarter project, according to MacroFab's website.
      * "Our goal is to change the way manufacturing happens for small and medium-sized companies," Church told the HBJ. "Current processes for new products are so onerous."
* Equipment/Technology
  + Please provide any related equipment and technology related to this request.
    - The MacroFab Manufacturing Cloud operates over 100 factories in North America.
  + Include details on any back-up plans to complete orders.
    - The MacroFab Manufacturing Cloud has an algorithm for pairing designs to factory lines. Once your project design is approved for manufacturing in the MacroFab platform, each production job has the portability to be transported to any factory line that matches the manufacturing specifications.
* Regulatory Insight
  + Do you have experience in products adhering to hazloc (explosive environments) standards such as the ANSI/UL 60079 series?
    - Yes.
  + Do you use, or have experience working with certification agencies, such as Underwriters Laboratories (UL), Canadian Standards Association (CSA), Intertek (ETL) or others? Please include relevant information.
    - Yes, we have experience with all. Our clients acquire the product certification by these agencies and can transfer the product certification to MacroFab to apply to the manufacture of your product design.
  + How often are your QA and fabrication processes audited?
    - MacroFab QA and fabrication processes are audited on a regular basis to adhere with ISO9001 compliance.
  + What are expected fees for auditing?
    - There are no anticipated fees for the participation of the Nikola team.
  + Please provide details on the compliance and testing process.
    - MacroFab adheres to ISO9001 compliance procedures and details can be made available to customers with active productions upon request.
  + What are your corrective action measures for compliance violations?
    - Our corrective action request process can be customized with Nikola Labs.
* Capacity
  + We are anticipating manufacturing approximately 57,000 sensor modules and hubs by the close of 2022 and over 70,000 sensor modules and 6,000 hubs by the close of 2023. The following table outlines an approximate number of units to be shipped after production is fully engaged.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Month | 1 | 2 | 3 | 4 | 5 | 6 - 18 |
| PBSM | 2,000 | 2,000 | 2,000 | 2,000 | 2,000 | 37,550 |
| Hubs | 167 | 167 | 167 | 167 | 167 | 3129 |

* + Volume projections for 2023 will increase and those numbers are represented in months 6-18.
  + Delivery timelines should align to a monthly schedule to meet demand.
  + Please include details on your current and future capacity to complete the project.
    - MacroFab has the current capacity to complete this project. The MacroFab Manufacturing Cloud operates over 100 factories in North America.
  + Is the size of this product request within your capabilities and typical course of business?
    - Yes.
  + What is the average size of your client companies?
    - MacroFab has the capacity and flexibility to work with clients from startup status to Fortune 1000 enterprises.
  + Minimum and maximum volume restrictions regarding the number of units or dollar amount associated with the products.
    - MacroFab does not have any minimum or maximum volume restrictions.
* Location
  + Please provide potential locations of manufacturing, assembly, and distribution etc.
    - The MacroFab Manufacturing Cloud operates over 100 factories in North America.
  + Please include locations for any subcontracted or outsourced services.
    - MacroFab manages the entire manufacturing process for our customers.
* Financial Stability
  + Please provide information regarding your company’s credit rating and D-U-N-S number, ability to pay for materials and services you contract, and the overall financial stability of your company and operations.
    - We are financially backed by sophisticated private equity firms - Edison Partners and ATX Venture Partners, with a long history of making successful investments. We also have Altium, a large publicly traded company, as one of our investors.
    - DUNS Number 052049022
* Contract Terms
  + What are your standard contracting terms?
    - Attached MSA to Patrick.
  + Please provide an example of your standard engagement contract.
    - Attached above.
* Outstanding Questions
  + What questions do you have for Nikola Labs?
    - None at this time.

**Target Deliverable Schedule**

This section will give a target timeline for the RFQ and follow-up. Please include any schedule constraints and turnover times if applicable.

* Proposals for this RFQ are expected to be returned within two weeks. Longer periods may be granted if necessary.
* Nikola Labs is prepared to engage in a contract immediately after reviewing the proposal and contract terms.
* Per the schedule outlined above, Nikola Labs anticipates monthly deliveries of completed products, with the first shipment expected in early Q4 2022.

Note: Please include any concerns about the target delivery dates.

**Cost Targets**

* **PBSM – Less than $60 a unit**
* **HUB – Less than $100 a unit**

We are providing this information as a guideline but are obviously interested in optimizing costs where possible. If the CM has suggestions to meet this goal, Nikola Labs would be interested in hearing about these, including design modifications considered by your engineering team.

**Submission Requirements**

Bidders must adhere to the following guidelines to be considered. These will be the evaluation criteria to determine qualified bidders.

* Please address all the questions in the “Contract Manufacturer Capabilities” section and provide any supporting documents.
* Include any supporting material and case studies with your response.
* An estimated generic schedule based on the information provided must also be included.
* Please include any questions or concerns at this point.
* Responses must be received by 2/28/2022. Responses and clarifying questions can be sent to the contact email provided at the end of this document.

### **What We are Looking for in Potential Vendors**

Submissions will be evaluated based on how closely candidates match the needs of Nikola Labs, including the following considerations. Please include any additional relevant information that supports your proposal.

* Experience in CM process
* Quality of products and services
* Responsiveness and communication
* Resources and Capacity for growth in demand
* Ability to work with small, rapidly growing companies needing turnkey solutions
* Ethical and socially responsible business partner. (Adherence to child labor laws, equal opportunity employer etc.)

**Contact Information**

For questions or concerns connected to this RFQ, we can be reached at:

**Patrick Connell**

**Director of Supply Chain**

[**pconnell@nikola.tech**](mailto:pconnell@nikola.tech)

**614-946-5327**

**or**

**Shawn Nichols**

**Vice President of Products**

[**snichols@nikola.tech**](mailto:snichols@nikola.tech)

**404-453-6671**

**Nikola Labs Inc.**

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