☐ Risk Review   ☐ Design Review   ☐ Milestone Review   ☒ Technical Review   ☐ < *Other* >

Overview	
Project Topic:	Technical Review and Sample Prep Module Design Kick-Off with CCG

Meeting Date:	February 14, 2024	Notes taken by:	Jamie Purcell
Attachments:	CCG-GHL NAATOS Sample Prep Module Kickoff .pptx		

Attendance			
Attendee	Representing	Attendee	Representing
James Paolino	CCG	Jamie Purcell	GHL, Diagnostics
Mark Flanagan	CCG	Matt Keller	GHL, Engineering & Software
Carlos Gonzalez	GHL, Product Development	Bryan Norton	GHL, Engineering & Software
Andrew Miller	GHL, Engineering & Software	Josh Bishop	GHL, Product Development
Alexey Ball	GHL, Diagnostics	Isabel Izek	GHL, Product Management
		Nikki Sanchez Comeau	GHL, Program Management

Meeting Minutes

Agenda
- Intros   - Overview / how we got here   - Deeper look at specs   - Current design details   - Plan moving forward

Objectives
- Provide CCG with background information necessary to understand the key functional requirements for a bead beating sample prep module   - Present detailed design and testing results for current GHL sample prep module design: voice coil bead beater (VCBB)   - Ensure CCG understands the key driving requirements for NAATOS sample prep module (specifically temperature, throw/displacement, and frequency)

Notes
- Brief introductions/roles   - Background on needs for sample prep of tongue swabs. The device must minimally: inactivate nucleases, render sample biosafe, and lyse TB cells.   - Background on lysis techniques that GHL evaluated in addition to voice coil bead beating   - Voice coil bead beater (VCBB) design with a focus on flexure plate design and stacked, PCB heater assembly   - VCBB test results   - Discussion of key requirements for NAATOS sample prep module, including review of sample tubes   - Detailed discussion of VCBB design, including material selection, manufacturing methods, and assembly considerations

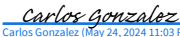| Inputs / Outputs |
|---|
| **Inputs:**
Current NAATOS sample prep module product requirements
Detailed designs for VCBB – CAD, PCB designs, firmware, etc.
PPT deck summarizing key test results and driving requirements
A physical VCBB prototype provided to CCG for evaluation and testing
Outputs:
Co-development project officially kicked off with CCG and both teams are ready for work to begin Shared understanding of key driving requirements Path forward for CCG to work on designing subsequent prototypes |

Next Steps

Decisions Made
- CCG to use the VCBB prototype, design files, and requirements to consider modifications to either: - Make the VCBB design more manufacturable at scale   - Produce alternate sample prep module designs that could meet the same key requirements

Action Items		
Description	Owner(s)	Target Date
CCG to review materials and provide GHL with an opinion on manufacturability of VCBB design. If deemed necessary during review, CCG to propose a suggested path forward for this design or propose alternative designs for evaluation and GHL approval.	CCG	Q1 2024

Review sample prep module requirements and generate any necessary subsystem requirements.	CCG	Q2 2024
Revise BOM to include additional detail and part counts. Share with CCG.	Jamie	ASAP
Establish regular meeting cadence for project updates.	Nikki	ASAP
Share preliminary project plan highlighting key deliverables to align with NAATOS project schedule	Jamie & Nikki	ASAP
File Technical Review Record with Quality.	Jamie	ASAP

Approval Signatures

Print Name	Title	Signature
Carlos Gonzalez	Sr. Director, Product Development, GHL	*carlos gonzalez* Carlos Gonzalez (May 24, 2024 11:03 PDT)
Mark Flanagan	President, CCG/Scitus Engineering	*mark flanagan*
Josh Bishop	Principal Scientist, Product Development	*[signature]*
Jamie Purcell	Director, Diagnostics	*Jamie Purcell* Jamie Purcell (May 22, 2024 09:02 PDT)

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NAATOS VCBB Technical Review (CCG) Record 2024-02-14

Final Audit Report   2024-05-24

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