



NEURALA VIA INTEGRATION INTO FLOYD'S SALESFORCE CRM

EXECUTIVE OVERVIEW

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OVERVIEW

Proposal: Integration of Neurala AI Visual Inspection software at Floyd Furniture to improve quality at scale

Problem Statement:

- Floyd received an inquiry from online market giant, Wayfair, for a possible order of about 5000 units of various types of Floyd furniture kits to be offered through the online retailer. This being the largest single order the company has ever received, Floyd has to adapt to match the scale and ensure high levels of quality to retain business and scale new peaks.
- Problems encountered by Floyd in the recent past, such as the inconsistency in the quantity of fasteners in the kit and the quality of the surface finishing need to be resolved in order to retain brand identity, handle larger scale production successfully, and retain positive visibility in the market. And what better way to solve this than replacing manual, random inspection with systematic, automated, AI powered inspection.
- There is a strong necessity to innovate and recalibrate in resonance with the increasing production demand, the demand for more robust quality control processes and the need to achieve greater levels of customer satisfaction. These are crucial to the desired growth curve and successful expansion of Floyd Furniture.

OVERVIEW - Business Case

- The integration of Neurala's Vision Inspection Automation (VIA) into Floyd's Salesforce CRM system would enable automated inspection of defects on furniture parts and ensure adequate quantity of fasteners in the kit, all while eliminating manual intervention and human errors.
- Reduction in human intervention and increased automation leads to productivity improvements, including higher throughput, minimal required intervention, and lower waste costs. It would help limit recruiting additional manpower to support the enhanced scale of production expected.
- Neurala's AI system integration into quality assurance process at Floyd would give Floyd a shot in the arm when it comes to maintaining consistency in manufacturing, which would be expected as the brand evolves. A success in implementing this technology for two of Floyd's products - the Floyd shelving system and the Floyd round table would empower the company to accommodate Neurala's AI software to a host of other products and processes to achieve maximum levels of automation with respect to inspection of products.
- Floyd will be in a better position to achieve higher levels of customer satisfaction, while also maintaining brand equity and reputability. Better customer satisfaction and optimal consistency across product manufacturing would eventually increase Floyd's market share.
- This would aid in satisfactory delivery of Wayfair's order of 5000 kits with optimum quality control, which would then potentially snowball into more business and bigger orders for Floyd.
- This would be beneficial to Neurala as well, as the success of this project would showcase the potential of Neurala's offering to a vast audience.
- Salesforce could prove versatility and compatibility of its CRM software with third party integration, thereby gaining traction for itself.

OVERVIEW - Deliverables

Product and Process Deliverables:

- Successful integration of Neurala's Vision Inspection Automation (VIA) software into Floyd Company's Salesforce CRM system, that is used to control orders and manufacturing processes at Floyd, with the assistance of Salesforce Technical Account Manager Aurelia Johnson as a Product Integration Advisor. This implementation is to be done initially for Floyd Shelving System and Floyd Round Table.
- Ensuring effective configuration and training of VIA software with the help of Brain Builder - by creating custom vision AI solutions.
- Development of a technical design document by Ben Cooper, Nithin Vejendla and Aurelia Johnson.
- Development a functional design document by Jennifer Hui, Jeffrey Fagan and Aurelia Johnson.
- Necessary Knowledge Transfer (KT) to employees on the working of VIA software on a need-to-know basis by Jeffrey Fagan and Ben Cooper.
- Ensuring hardware requirements to support the software are met, including installation of GigE Vision Standard cameras.

Vision of the project - Benefits and Strategic Advantages

Greater consistency across kits as a result of greater quality control resulting in greater customer satisfaction.

Move towards automation opens up avenues to greater scale of production, and along with it a promise of consistent quality.

Ensures greater efficiency and lower production downtime. Frees up human resources to be made available for other necessary work.

Would lower cost of production over the longer run, by eliminating wastage, rework and redundant man hours.

Brand appeal, reliability, confidence and trust in the product would all improve massively, thereby gaining Floyd substantially greater positive visibility in the market with better reviews.

Puts the company on the path of innovative adaptation and digital transformation which is necessary to survive in a dynamically changing external environment.

Data is the new oil. The data generated by the use of VIA can be used to derive patterns and insights leading to detection of the root cause of defects.

Adaptation of emerging technology would give the company a "first mover advantage", differentiating itself from competitors.

Scheduling Assumptions and Constraints

Scheduling Assumptions:

- A delay in ensuring procurement and setup of GigE vision cameras on the manufacturing line will cause a delay in testing and thereby “go-live” as well.
- Integration into the CRM, training the brain builder could take more iterations or sprints than expected, leading to a delay in testing and go-live.
- Sudden resignation by key employees who have been trained in the use of VIA software might cause a delay in the release going on Production.
- Testing the integrated software could take more time than expected which could release in a delay in going live to PROD.
- Documentation signoff from key stakeholders at regular intervals could delay due to a variety of reasons which has a cascading effect in terms of extended timelines.



Constraints

- The project has to be completed within the given budget and within reasonable timelines, within time to meet the demands of the Wayfair order.
- The resources allocated for this project to be managed effectively and tasks to be delegated efficiently.
- The disruption to ongoing Production activities to be kept to a minimum while integrating VIA and testing.
- The extra burden on employees to balance existing Production and get involved with the new integration to be handled carefully.

Project Stages

Requirement analysis and gathering: This has been performed already through several rounds of discussions with key stakeholders.

Preparation of a charter-scope: This has been prepared and has been approved by key stakeholders. Floyd's VP of Marketing, Rachael Brown, has agreed with Ashley Bishay, Floyd's Financial Controller, that Josh Oswald, Floyd's Business Operations Manager would serve as Project Sponsor for this project.

Design and analysis: The functional and technical design would be developed and a functional design document and technical design document would be prepared for future reference. Development of a technical design document would be by Ben Cooper, Nithin Vejendla and Aurelia Johnson. Development a functional design document would be by Jennifer Hui, Jeffrey Fagan and Aurelia Johnson. These documents would be signed off by Josh Oswald before proceeding to implementation.

Implementation and Integration: The VIA software is to be integrated into Floyd's Salesforce CRM system by the combined participation of Floyd's team, Neurala's representatives and the Salesforce Technical Account Manager Aurelia Johnson. The VIA software would be trained and fine tuned using Brain Builder.

Testing: The integrated software would be rigorously tested with various defective and non-defective kits and a comprehensive report would be prepared, which would be signed off by Josh Oswald.

Training: Adequate training would be provided to employees to use Neurala's software which would be provided by Jeffrey Fagan and Ben Cooper.

Go-live into Production and closure: The integrated system would be moved into Production and upon verification would be closed after obtaining a signoff from Josh Oswald, other key stakeholders and ensuring proper documentation.

Quality planning, Quality assurance, Quality Control approaches

- There would be weekly meetings with Floyd's internal team, Neurala's team, and with Salesforce Technical Account Manager Aurelia Johnson.
- These meetings would cover roadblocks, potential solutions to them, enable cross-team, cross-functional communication and deliberate progress towards the next milestone.
- Comprehensive functional and technical design documents shall be prepared and verified, which shall serve as the basis for the integration and implementation.
- There would be a comprehensive testing plan including regression testing designed by Nithin Vejendla, Ben Cooper and Jeffrey Fagan which would include multiple negative test cases. A thorough report would be prepared which would be reviewed stringently.
- Training of the VIA software using Brain Builder will be done until perfected by using multiple samples and in conjunction with Neurala's team.
- Check the GigE cameras thoroughly to ensure image quality is adequate enough to not hamper the functioning of the VIA software.
- A process and milestone checklist shall be prepared and adhered to, with revisions to it as and when necessary.
- Compliance audits shall be conducted at regular intervals to ensure compliance with all legal and ethical guidelines.

Executive involvement and support needed

From Floyd Furniture:

- 1) Rachael Brown, Floyd's VP of Marketing: *Strategic direction and mentorship.*
- 2) Ashley Bishay, Floyd's Financial Controller: *Approval of costs and budget .*
- 3) Josh Oswald, Floyd's Business Operations Manager: *Sponsor of the project. Signoffs on key milestones, key documentation, and guidance and mentorship.*
- 4) Sarah Broadwater, Customer Experience Team Lead: *help in pitching in with views on impact to customers.*
- 5) Nithin Vejendla - Systems Developer: *Technical go-to person, responsible for integration and testing.*
- 6) Jennifer Hui, Digital Product Designer: *Gives inputs from a product perspective.*
- 7) Tiberius Fields, Product Engineer : *Provide feedback on improvements obtained in finding defects after VIA implementation.*
- 8) Training team: *to provide adequate training to required employees in understanding how to use the VIA software effectively.*
- 9) Key investors of Floyd: *Patrons of the project. Support and encouragement to the whole team.*

From Salesforce:

- 1) Aurelia Johnson , Salesforce Technical Account Manager: *Enable smooth integration of Neurala VIA into Salesforce CRM. SME from a Salesforce CRM perspective.*

Executive involvement and support needed

From Neurala:

- 1) Barbara Watkins, Account Executive – *responsible for the business Neurala is doing with Floyd.*
- 2) Daniel Glasser, VP of Client Operations – *senior leadership representative from Neurala, mentor.*
- 3) Jeffrey Fagan, Lead Product Designer – *provide functional guidance with respect to VIA implementation.*
- 4) Ben Cooper, Software Engineer – *provide code level and technical guidance with respect to VIA implementation.*

THANK YOU

Any Questions?

