Integrating Neurala AI in Floyd Furniture

A Strategic Leap in Quality Control

Team members

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neurala

FLOYD

Project Proposal

Proposal

Elevate Floyd Furniture's quality with Neurala's AI, solving production challenges and exceeding Wayfair's expectations.

Problem Statement

- Need to improve quality assurance processes to handle large orders and maintain customer satisfaction.
- Integration of advanced AI-driven technology to detect and rectify product flaws.
- Integrating Neurala's AI system with Salesforce CRM and manufacturing processes requires a sophisticated, coordinated approach.

Overview

Scope:

The project will focus on the integration of Neurala's Vision Inspection Automation (VIA) software, configured for the Floyd Shelving System and the Floyd Round Table. The ultimate goal is to revolutionize quality assurance, proactively addressing issues related to fastener kit accuracy and manufacturing flaws.

Technology Used:

Neurala's Vision Inspection Automation (VIA) software, integrated with Salesforce CRM.

Implementation Phases

- Phase 1: Planning, team training, and pilot testing.
- Phase 2: Full-scale deployment and quality monitoring.
- Phase 3: Evaluation, refinement, and expansion.

Vision and Mission

To transform Floyd Furniture into a technology-driven leader in the furniture industry, setting new benchmarks in manufacturing precision and product quality.

By integrating advanced AI technology, we aim to significantly enhance the efficiency of our manufacturing processes, ensuring every product meets the highest quality standards.

TECHNOLOGY OUTCOMES

- ★ AI-Driven Quality Control
- ★ Seamless Integration with CRM
- ★ Data-Driven Decision Making
- ★ Skilled Workforce Empowerment

Process Deliverables

- ❑ Seamless integration of Neurala AI into Floyd Furniture’s manufacturing system
- ❑ Delivery of a detailed presentation outlining the integration process, benefits, and outcomes
- ❑ Develop a training program for both new and existing staff
- ❑ Enable upper management with direct access and control over the quality assurance process

Product Deliverables

- ❑ Anticipate a substantial increase in customer satisfaction
- ❑ Implement Neurala AI for meticulous inspection, minimizing defects
- ❑ Unlock the capability to fulfill larger orders seamlessly
- ❑ Enable the system to manage and fulfill multiple orders concurrently

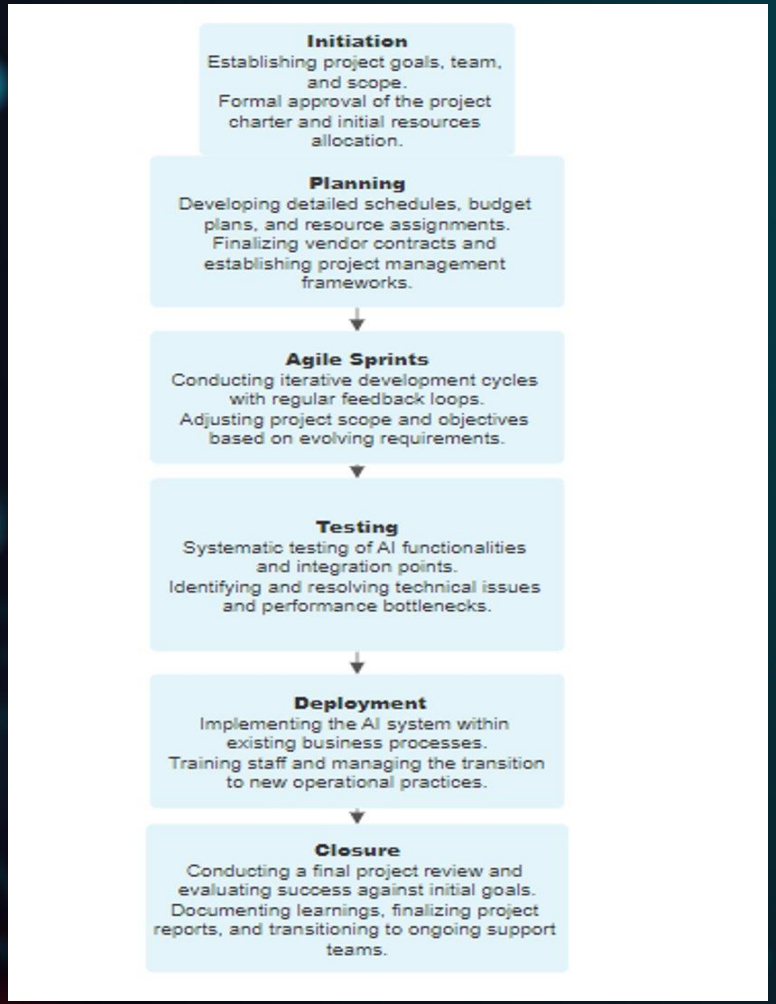
Scheduling Assumptions

- Successful collaboration between Floyd and Neurala AI is anticipated
- Assumption of constant availability of human resources for the project
- No hardware incompatibility issues during the software integration process
- Neurala possesses the technical expertise for AI integration
- Availability of necessary hardware and quality data for training Neurala's AI models
- Integration without significant disruption to current manufacturing operations
- Assurance of prompt technical support from Neurala
- Effective training for employees on Neurala VIA software
- Adherence to data security and privacy standards

Constraints

- Time delay if stakeholders don't approve scope, budget, or project plans
- Numerous holidays in October and November might impact project timelines
- Additional costs if any parts are damaged during the integration process
- Dependence on timely provision of materials by vendors and Neurala teams
- Swift implementation required to meet market demands
- Limited timeframe for employee training on new systems
- Goal to minimize impact on current manufacturing processes
- Critical milestones for system integration with existing operations
- Ensuring consistent communication and agreement among all project stakeholders.

PROJECT FLOW



Project Stages - Initial Phases

01

Initiation

- Approval of Project Charter.
- Establishment of project scope and objectives.
- Formation of project team

02

Planning

- Detailed project scheduling and resource allocation.
- Selection and finalization of vendor contracts.
- Risk assessment and mitigation planning.

03

Agile Sprints (Early Phases)

- Initial setup of AI software.
- Iterative development cycles focusing on core functionalities.
- Frequent reviews and adjustments based on feedback.

Project Stages - Final Phases

04

Agile Sprints (Later Phases) & Testing

- Completion of advanced features and integrations.
- Comprehensive testing of AI models and system functionalities.
- Addressing any identified issues or bugs.

05

Deployment

- Integration of the AI system into existing processes.
- Training employees and initiating change management processes.
- Monitoring initial performance and making necessary adjustments.

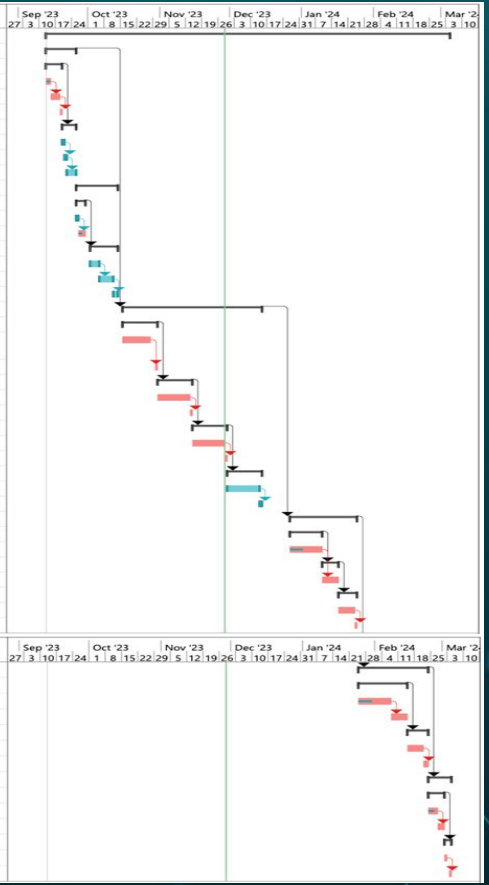
06

Closure

- Formal project review and evaluation of outcomes against objectives.
- Documentation of lessons learned and best practices.
- Handover of the system for ongoing operation and support.

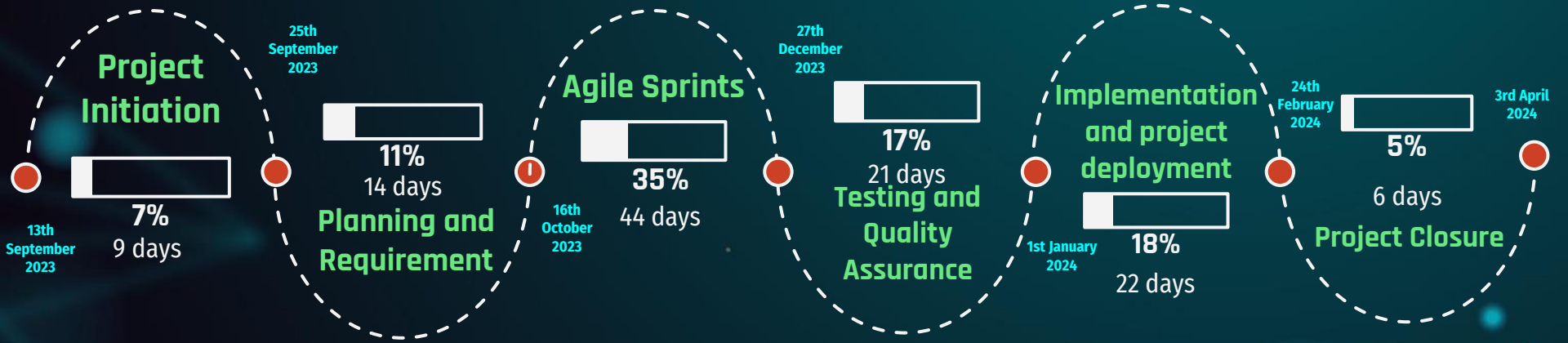
Critical Path

ID	Task Mode	Task Name	Work	Duration	Start	Finish
1		**IST645S23A2BPatelV**	**976 hrs**	**124 days**	**Wed 9/13/23**	**Mon 3/4/24**
2		**Phase 1: Project Initiation**	**72 hrs**	**9 days**	**Wed 9/13/23**	**Mon 9/25/23**
3		**Develop the Project Charter and Scoping Document**	**40 hrs**	**5 days**	**Wed 9/13/23**	**Tue 9/19/23**
4		Define project objectives and scope	16 hrs	2 days	Wed 9/13/23	Thu 9/14/23
5		Identify key stakeholders	16 hrs	2 days	Fri 9/15/23	Mon 9/18/23
6		Develop a high-level project plan outline	8 hrs	1 day	Tue 9/19/23	Tue 9/19/23
7		**Obtain approval from key stakeholders**	**32 hrs**	**4 days**	**Wed 9/20/23**	**Mon 9/25/23**
8		Schedule stakeholder meetings	8 hrs	1 day	Wed 9/20/23	Wed 9/20/23
9		Present project charter and scope for approval	8 hrs	1 day	Thu 9/21/23	Thu 9/21/23
10		Incorporate feedback and finalize charter	16 hrs	2 days	Fri 9/22/23	Mon 9/25/23
11		**Phase 2: Planning and Requirements**	**144 hrs**	**14 days**	**Tue 9/26/23**	**Fri 10/13/23**
12		**Vendor Selection and Contracting**	**40 hrs**	**4 days**	**Tue 9/26/23**	**Fri 9/29/23**
13		Select Neurala as the AI solution provider	8 hrs	1 day	Tue 9/26/23	Tue 9/26/23
14		Negotiate and finalize the vendor contract	32 hrs	3 days	Wed 9/27/23	Fri 9/29/23
15		**Project Planning Detailing**	**104 hrs**	**10 days**	**Mon 10/2/23**	**Fri 10/13/23**
16		Develop detailed project requirements and specifications	40 hrs	4 days	Mon 10/2/23	Thu 10/5/23
17		Create a detailed WBS (Work Breakdown Structure)	40 hrs	4 days	Fri 10/6/23	Wed 10/11/23
18		Establish project schedule and milestones	24 hrs	2 days	Thu 10/12/23	Fri 10/13/23
19		**Phase 3: Agile Sprints**	**352 hrs**	**44 days**	**Mon 10/16/23**	**Thu 12/14/23**
20		**Sprint 1: Feature Development and Testing**	**88 hrs**	**11 days**	**Mon 10/16/23**	**Mon 10/30/23**
21		Define sprint goals and tasks Define sprint goals, development, and testing of features	80 hrs	10 days	Mon 10/16/23	Fri 10/27/23
22		Sprint review and retrospective	8 hrs	1 day	Mon 10/30/23	Mon 10/30/23
23		**Sprint 2: Feature Development and Testing**	**88 hrs**	**11 days**	**Tue 10/31/23**	**Tue 11/14/23**
24		Define sprint goals, development, and testing of features	80 hrs	10 days	Tue 10/31/23	Mon 11/13/23
25		Sprint review and retrospective	8 hrs	1 day	Tue 11/14/23	Tue 11/14/23
26		**Sprint 3: Feature Development and Testing**	**88 hrs**	**11 days**	**Wed 11/15/23**	**Wed 11/29/23**
27		Define sprint goals, development, and testing of features	80 hrs	10 days	Wed 11/15/23	Tue 11/28/23
28		Sprint review and retrospective	8 hrs	1 day	Wed 11/29/23	Wed 11/29/23
29		**Sprint 4: Feature Development and Testing**	**88 hrs**	**11 days**	**Thu 11/30/23**	**Thu 12/14/23**
30		Define sprint goals, development, and testing of features	80 hrs	10 days	Thu 11/30/23	Wed 12/13/23
31		Sprint review and retrospective	8 hrs	1 day	Thu 12/14/23	Thu 12/14/23
32		**Phase 4: Testing and Quality Assurance**	**168 hrs**	**21 days**	**Wed 12/27/23**	**Wed 1/24/24**
33		**Initial System Testing**	**80 hrs**	**10 days**	**Wed 12/27/23**	**Tue 1/9/24**
34		Perform comprehensive system tests	80 hrs	10 days	Wed 12/27/23	Tue 1/9/24
35		**Feedback Integration & Rework**	**40 hrs**	**5 days**	**Wed 1/10/24**	**Tue 1/16/24**
36		Address feedback and perform necessary reworks	40 hrs	5 days	Wed 1/10/24	Tue 1/16/24
37		**Final Testing & Approval**	**48 hrs**	**6 days**	**Wed 1/17/24**	**Wed 1/24/24**
38		Conduct final acceptance tests	40 hrs	5 days	Wed 1/17/24	Tue 1/23/24
39		Obtain final sign-off from stakeholders	8 hrs	1 day	Wed 1/24/24	Wed 1/24/24
40		**Phase 5: Implementation and Deployment**	**184 hrs**	**22 days**	**Thu 1/25/24**	**Fri 2/23/24**
41		**System Integration and Setup**	**120 hrs**	**15 days**	**Thu 1/25/24**	**Wed 2/14/24**
42		Integrate the system into the existing infrastructure	80 hrs	10 days	Thu 1/25/24	Wed 2/7/24
43		Perform integration testing	40 hrs	5 days	Thu 2/8/24	Wed 2/14/24
44		**Training and Transition**	**64 hrs**	**7 days**	**Thu 2/15/24**	**Fri 2/23/24**
45		Conduct training sessions for the staff	40 hrs	5 days	Thu 2/15/24	Wed 2/21/24
46		Transition system to operational status	24 hrs	2 days	Thu 2/22/24	Fri 2/23/24
47		**Phase 6: Project Closure**	**56 hrs**	**6 days**	**Sat 2/24/24**	**Mon 3/4/24**
48		**Documentation and Reporting**	**40 hrs**	**5 days**	**Sat 2/24/24**	**Fri 3/1/24**
49		Compile project documentation	24 hrs	3 days	Sat 2/24/24	Tue 2/27/24
50		Prepare and submit final project report	16 hrs	3 days	Wed 2/28/24	Fri 3/1/24
51		**Project Closure Meeting**	**16 hrs**	**1 day**	**Sat 3/2/24**	**Mon 3/4/24**
52		Conduct project closure meeting	8 hrs	1 day	Sat 3/2/24	Sat 3/2/24
53		Officially close the project	8 hrs	1 day	Mon 3/4/24	Mon 3/4/24



Critical Path

124 days of work!



Assumptions, Constraints, and Risk Management

Assumptions	Constraints	Risk Management
We're assuming that we'll have **full technical support** from Neurala, that our staff will **adapt quickly to technological changes**, and that there will be **minimal disruptions** to our current operations during the transition period	We're working within a **fixed budget and a tight timeline**. We also acknowledge the **learning curve** associated with adopting new technologies and the **potential resistance** from employees accustomed to traditional methods.	We've identified potential risks, including **technical malfunction, delays in implementation, and budget overruns**. For each risk, we've developed a contingency-plan. We're committed to a proactive approach, anticipating issues before they arise, and responding effectively if they do.

Quality Assurance and Continuous Improvement

- **Standards Adherence**

  We're committed to upholding the highest industry standards, and this project is no exception. We'll be conducting rigorous quality checks at every phase, ensuring that our partnership with Neurala AI enhances our reputation for excellence.

- **Feedback Loops**

  We believe in the power of continuous improvement. We'll be establishing feedback loops, collecting insights from staff interacting with the Neurala AI system, and customers receiving the finished products. This feedback will inform our ongoing strategy, ensuring that we're always moving forward, not standing still.

Executive Engagement and Project Advocacy

Leadership Role

Our executives aren't just sponsors of this project; they're advocates. They're championing this technological shift, communicating its value to the entire company, and leading by example in embracing change.

Name	Position and Company	Business Function
Rachael Brown	VP Marketing, Floyd	Final Approval
Daniel Glasser	VP Client Operations, Neurala	Final product integration
Josh Oswald	Project Sponsor, Floyd	Funding
Jeffrey Fagan	Lead Product Designer, Neurala	Final design of the software
Sarah Broadwater	Customer Experience, Floyd	Customer Feedback

Conclusion: A New Chapter for Floyd Furniture

- **Reflecting on the Journey**

  We're on the brink of a significant transformation, one that will redefine our company's future. This project has been a journey of discovery, learning, and growth. We've forged new partnerships, challenged old ways of thinking, and embraced innovation with open arms.

- **Looking Ahead**

  The integration of Neurala AI is just the beginning. We're setting the stage for a future where technology and human ingenuity go hand in hand, pushing the boundaries of what's possible. We're not just adapting to the future; we're creating it.

Thank You