

Review Form 3

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_130248
Title of the Manuscript:	Harnessing Robotics for Enhanced Precision in Agriculture
Type of the Article	Research Article

PART 1: Comments

	Reviewer's comment	Author's Feedback (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript presents a pivotal contribution to the scientific community by highlighting advancements in robotics and automation for precision agriculture. The integration of unmanned aerial vehicles, smart sensors, and automated systems addresses critical challenges in modern farming, such as resource efficiency, labor reduction, and environmental sustainability. By offering detailed insights into the development and implementation of autonomous navigation systems and intelligent agricultural machinery, this work serves as a valuable resource for researchers and practitioners aiming to optimize agricultural productivity. Furthermore, the manuscript fosters innovation in precision agriculture by showcasing emerging technologies that enable data-driven decision-making and sustainable farming practices.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title of your article, "Harnessing Robotics for Enhanced Precision in Agriculture," is clear and concise. However, it may benefit from a more specific focus to better reflect the detailed content of the article, such as the integration of UAVs, sensors, and robotics in precision farming. Alternative Title Suggestions: 1. "Advanced Robotics and Automation for Precision Agriculture: Current Trends and Future Opportunities" 2. "Advancing Precision Agriculture: The Role of Robotics and UAVs" 3. "Harnessing Robotics, AI, and UAVs for Smart Agriculture"	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract provides an overview of UAVs and robotics in precision agriculture but needs better structure and clarity. It should clearly state the study's objectives, methods, key findings, and practical applications. Eliminating fragmented phrases, redundancy, and aligning content with keywords like "precision farming" and "smart sensors" will enhance coherence. Highlighting specific innovations and addressing real-world challenges would strengthen its focus and impact. Overall, revising for clarity and emphasizing the study's contributions will make the abstract more effective and engaging.	
Is the manuscript scientifically, correct? Please write here.	Your manuscript appears to be scientifically correct. The application of UAVs—or Unmanned Aerial Vehicles—in agriculture is well-supported by current research and aligns with the growing trend of utilizing agricultural robots for precision farming. UAVs are indeed equipped with a variety of smart sensors, such as optical sensors including RGB, multispectral, and hyperspectral cameras, which are essential for monitoring crop health and detecting early signs of pest infestation. These sensors allow for detailed analysis of crop-related parameters, supporting the agricultural objective of optimizing resource use and improving crop yield. The integration of navigation systems, computational techniques, path planning algorithms, and control strategies within these UAVs further enhances their autonomy and efficiency in performing agricultural tasks. Overall, your research accurately reflects the current technological practices and scientific understanding of precision farming and the use of agricultural drones.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	It appears that more recent references are needed for your manuscript to ensure it is up-to-date. Incorporating recent reviews will provide a comprehensive overview of the latest advancements and applications of UAVs in precision agriculture.	

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Is the language/English quality of the article suitable for scholarly communications?	Your manuscript demonstrates a strong command of the English language and is generally suitable for scholarly communications. The terminology and technical jargon used are appropriate for the field of agricultural robotics and precision farming. However, a careful proofread to eliminate minor grammatical errors and improve the flow of certain sentences can further enhance the clarity and readability of your manuscript. Additionally, ensuring consistency in the use of terms and improving transitions between sections will elevate the overall quality. Fine-tuning these aspects will make your manuscript more polished and professional, ready for submission to academic journals.	
Optional/General comments	Your manuscript presents a thorough and insightful exploration of the role of UAVs and smart sensors in precision agriculture. The detailed explanation of the various technologies and algorithms involved showcases a solid understanding of the subject matter. To further strengthen your manuscript, consider incorporating recent research findings and review articles that highlight the latest advancements in this field. Additionally, a thorough review of grammar, punctuation, and sentence structure will enhance the clarity and coherence of your paper. Overall, your manuscript is a valuable contribution to the study of agricultural robotics and precision farming, and with these refinements, it will be well-prepared for scholarly publication. "Advanced Robotics and Automation for Precision Agriculture: Current Trends and Future Opportunities" Strengths: Comprehensive Coverage: The manuscript extensively covers various robotic technologies, their applications, and integration with precision agriculture. Use of Visuals: Inclusion of figures like schematics, guidance systems, and robotic designs enhances clarity. Relevance: The discussion aligns well with current challenges in agriculture, such as resource optimization and sustainable practices. Strengths: Comprehensive Coverage: The manuscript extensively covers various robotic technologies, their applications, and integration with precision agriculture. Use of Visuals: Inclusion of figures like schematics, guidance systems, and robotic designs enhances clarity. Relevance: The discussion aligns well with current challenges in agriculture, such as resource optimization and sustainable practices. 1. Introduction: Issue: The introduction references a "Special Issue," which seems misplaced in the manuscript context. Suggestion: Focus on presenting the background, significance of robotics in agriculture, and objectives of the paper. Remove references to the "Special Issue" unless this is a review of a specific publication. 2. Materials and Methods: Issue: The section is descriptive but lacks experimental details or a structured methodology. Suggestion: If this is a review, clearly state the review methodology, such as databases searched, keywords used, and selection criteria for studies. If experimental, provide specifics about tools, setups, and protocols. 3. Results and Discussion: Issue: The results and discussion are mixed with general observations without a clear distinction. Suggestion: Structure the discussion to highlight key findings, their implications, and comparisons with existing literature. Introduce subheadings to improve	

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	readability (e.g., "Advancements in Autonomous Navigation," "Economic Challenges of Robotic Adoption"). 4. Figures and Tables: - o Issue: Some figures lack proper captions or detailed explanations in the text. - o Suggestion: Provide descriptive captions for all figures. For instance, explain how Figure 1's schematic aids in understanding the sensing and navigation process. 5. Conclusion: - o Issue: The conclusion reiterates known information but lacks actionable insights or a call to action. - o Suggestion: Emphasize future directions, such as specific technological advancements needed or policy changes to facilitate robotic adoption in agriculture. 6. Language and Grammar: - o Issue: Several sentences are redundant or overly complex. - o Suggestion: Simplify sentences for clarity and ensure grammatical accuracy. Example: ▪ Original: "Autonomous navigation systems are crucial for the precise operation of agricultural robots in various field tasks." ▪ Revised: "Autonomous navigation systems enable precise agricultural robot operations in field tasks." 7. References: - o Issue: Some references seem outdated or incomplete. - o Suggestion: Verify all citations for accuracy and update them with the latest research (2022–2025). Ensure uniform formatting. 8. Title and Keywords: - o Issue: The current title is generic, and keywords are not adequately descriptive. - o Suggestion: Update the title as suggested above and include keywords such as "autonomous navigation," "robotic agriculture," "precision farming," "IoT in agriculture," and "sustainability."	
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PART 2:

	Reviewer’s comment	Author’s comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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