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A Study on Artificial Intelligence and Robotics' Potential Applications in Healthcare

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Abstract:

Artificial intelligence (AI) and robotics have emerged as transformative technologies with vast potential to revolutionize the healthcare industry. This research paper explores the myriad applications of AI and robotics in healthcare, ranging from surgical assistance to patient monitoring and telemedicine. By leveraging AI algorithms and robotic systems, healthcare providers can enhance diagnostic accuracy, improve treatment outcomes, and streamline clinical workflows. The paper examines current trends, challenges, and future directions in the integration of AI and robotics within the healthcare ecosystem, highlighting the opportunities for innovation and the ethical considerations that accompany these advancements.

Keywords: ***Artificial Intelligence, Robotics, Healthcare.***

1. INTRODUCTION:

The intersection of artificial intelligence and robotics represents a paradigm shift in healthcare delivery, promising to address longstanding challenges and unlock new possibilities for patient care. This paper aims to provide a comprehensive overview of the potential applications of AI and robotics in healthcare, exploring how these technologies are reshaping clinical practice, research, and healthcare administration.

2. LITERATURE REVIEW

The intersection of artificial intelligence (AI) and robotics in healthcare represents a rapidly evolving field with profound implications for patient care, medical research, and the healthcare industry as a whole. This literature review synthesizes findings from five key research papers, each offering unique insights into the current landscape and future directions of AI and robotics in healthcare.