

My name is Sukhreen Sandhu, and I am currently pursuing a degree in Electrical Engineering (EE) at the University of Nevada, Reno. My academic journey is fueled by a strong desire to make a meaningful impact within the aerospace industry, utilizing my electrical background to contribute to advancements in the field. My career aspirations revolve around working with rovers, robotics, solar technology, and electronics in the aerospace sector. Upon graduation, my plan is to further my involvement in research related to space technology by pursuing an EE graduate degree. After that, I aim to pursue a career in the aerospace industry, focusing on projects involving space transportation and relevant research. Alongside my university studies, I am eager to develop the necessary skills and knowledge to undertake personal projects as a hobby, with a focus on aerospace, gaming, and electronics topics.

Currently, I am involved in a research project in which my goal is to enhance a robot's maneuverability in challenging environments by creating a quadruped robot, incorporating a biological-inspired spine and further validating its effectiveness through benchmark robotics simulators. By leveraging morphological computation, I also aim to utilize the dynamics of the spine as a computational resource, enabling this robot to perform complex movements that traditional rigid robots would struggle to achieve. My aspiration is to contribute to the next generation of bioinspired robotics that can thrive in diverse environments and simplify important tasks that humans would struggle to achieve. This project holds the potential to advance technology for NASA's future missions, as it would address mobility concerns in the robotics industry and thus enable robots to scout areas otherwise too dangerous to navigate.