

Mark Jennings

Applied Robotacist | markjennings97@gmail.com | <https://makr.org>

Work Experience	Education
Los Alamos National Laboratory <i>R&D Engineer 2021 – Present</i> <ul style="list-style-type: none">Overhauled nuclear glovebox with the first autonomous robotic arm in US plutonium productionContributed automation and programming expertise to a variety of other manufacturing processesCoordinated intern program and advised projectsDOE Q (Top Secret equivalent) security clearance	MS Mechanical Engineering <i>UT Austin 2019 – 2021 3.96 GPA</i> <ul style="list-style-type: none">Robotics graduate programThesis: <i>Manipulator Control in Collaborative Assembly</i>
Nuclear and Applied Robotics Group at UT Austin <i>Graduate Research Assistant 2019 – 2021</i> <ul style="list-style-type: none">Developed a software package to augment assembly tasks with a collaborative robot, reducing reported worker physical effort by up to 57%Refactored custom codebase to leverage open-source libraries for a more robust robotic research platformPresented at American Nuclear Society conference	BS Mechanical Engineering <i>UT Austin 2015 – 2019 3.84 GPA</i>
Sandia National Laboratory <i>R&D Intern Summer 2019</i> <ul style="list-style-type: none">Designed additively manufactured metal components and developed corresponding qualification standardsLed 1st place intern team in design competition	Skills
Apptronik <i>Mechanical Engineering Intern Summer 2018</i> <ul style="list-style-type: none">Derived forward kinematic equations for an advanced humanoid bipedal robotUpdated actuator testbed product to achieve higher payloads with lower fabrication costsDeveloped heat transfer model for liquid-cooled motors	Mechanical: <ul style="list-style-type: none">CAD (SolidWorks & Creo), FEAManual/CNC MachiningAdditive Manufacturing Software: <ul style="list-style-type: none">C++, Python, MATLABRobot Operating System (ROS)Microsoft Office Suite, LaTeX
ReNeu Robotics Lab at UT Austin <i>Undergraduate Research Assistant 2016 – 2019</i> <ul style="list-style-type: none">Fabricated metal components with both manual and CNC machines3D-printed custom hand and finger prosthetics	Outreach
	Los Alamos FIRST Tech Challenge <i>Mentor/Coach 2022-2024</i> <ul style="list-style-type: none">Taught ~12 middle schoolers STEM, problem-solving, and teamworkInspired eligible students to continue with high school robotics
	UT Robotics & Automation Society <i>Mentor/Officer 2015 – 2019</i> <ul style="list-style-type: none">Competed in 1st year robotics challenge and then mentored teams throughout undergradHeaded committee that made eye-catching outreach robots