

## Job Detail

Staff Level

Position Title	Robot motion analysis/control experts and engineers aiming to become experts
Recruiter Company	iHOLON Co.,Ltd
Company Name	Company name is private
Activated / Updated	2024-05-13 / 2024-05-13
Job Type	Manufacturing (Automobile/Plant Engineering/Precision Equipment) - Other Electronics (Appliance/Semiconductor) - Other
Industry	Machinery Manufacturer
Location	Asia Japan Kanagawa
Job Description	<ul style="list-style-type: none"> <li>You will be responsible for mechanical analysis/motion analysis and control design using Matlab/Simulink, as well as real-time SW implementation. For those who have no experience using the tool, we will provide a detailed lecture.</li> <li>Analysis and implementation of arm/walking robot posture calculation, gravity calculation, inertia calculation, trajectory trajectory planning, motion prediction, etc.</li> <li>In order to achieve dexterous hand movements when using tools and supply body movements, please proceed with the design by referring to the movements of people and animals, based on a method called biomechanics.</li> <li>Utilizing spatial information and object shape information reconstructed from robot vision and sensors, we will explore ways to determine optimal movements in conjunction with reinforcement learning/imitation learning, etc.</li> </ul>
Company Info	<p>This is an environment where you can take on the challenge of developing humanoid robots ahead of future trends. Here you will find exciting experiences and opportunities for growth that can only be found at a start-up company. We are looking for friends who will be passionate about it, expand unknown possibilities, and create the future together!</p>
Qualifications	<p>[MUST]</p> <ul style="list-style-type: none"> <li>There should be no resistance to geometric operations such as moving and rotating the coordinate system, matrix operations, and differential and integral operations.</li> <li>Be confident in your spatial recognition abilities</li> <li>Ability to work on multi-level real-time implementation</li> </ul> <p>[Welcome (WANT)]</p> <ul style="list-style-type: none"> <li>Experience implementing kinematics on your own (forward kinematics/inverse kinematics), experience implementing dynamics, experience implementing statics (gravity compensation)</li> </ul> <p>We will give preferential treatment if you are good at coordinate transformation such as mass point distribution.</p> <ul style="list-style-type: none"> <li>Preference will be given to those who have implementation experience and knowledge of impedance control and compliance control design.</li> <li>Preference will be given to those with experience and knowledge of implementing predictive control and time series forecasting.</li> <li>Preference will be given to those with experience and knowledge in implementing high-gain robust control such as optimal servo control theory and high-order sliding mode control theory.</li> </ul>
Japanese Level	Business Level(JLPT Level 2 or N2)
Salary	Depends on experience