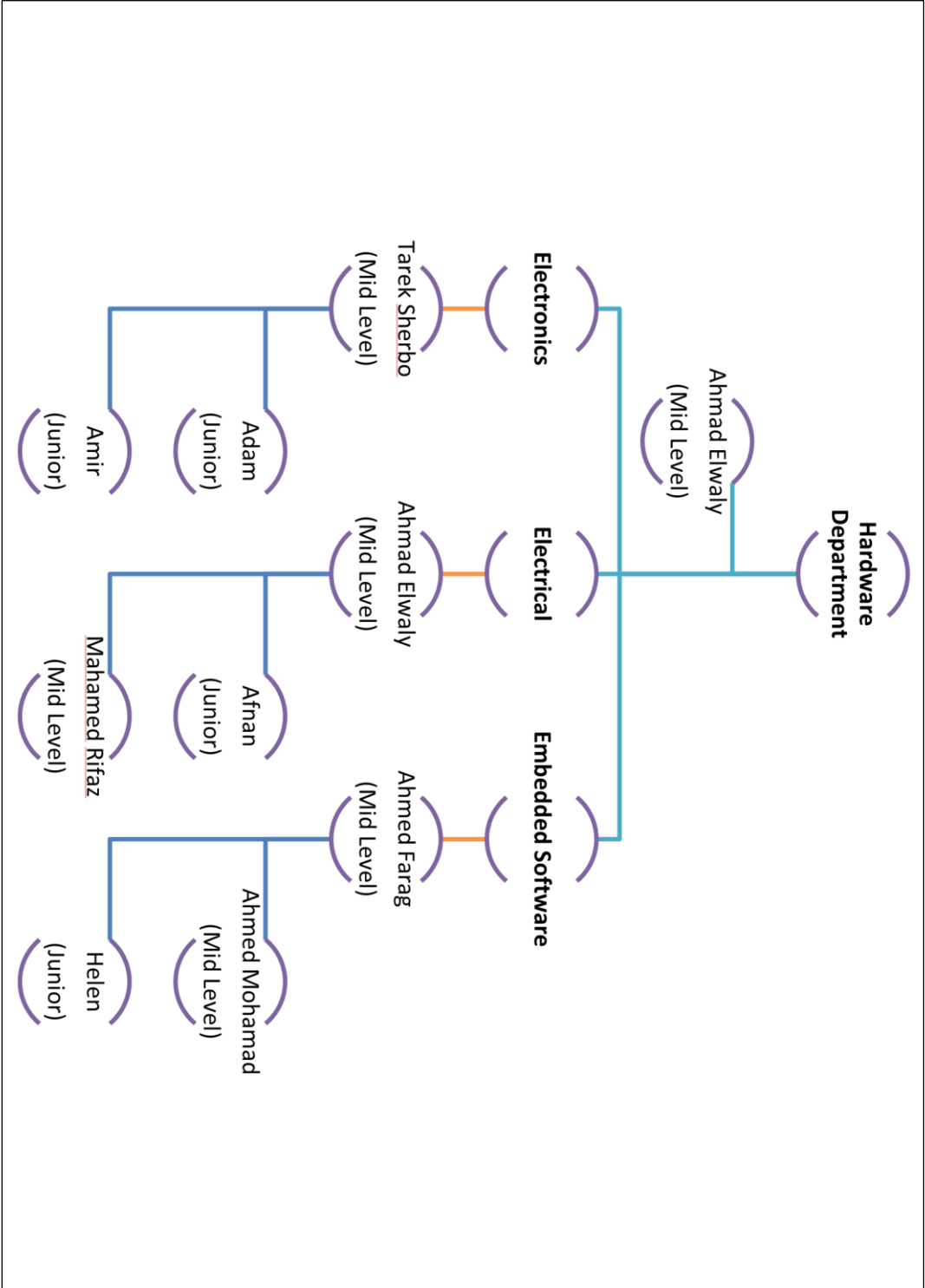


JOB DESCRIPTIONS - Hardware Department



Job Title: Hardware Department-Electronics Team Lead

Description:

As a **Electronics Team Lead** on the Micropolis team, you will be supporting box development of electronics for Automotive, Robotics and IOT products. You will be supporting the entire engineering life cycle: scoping, sizing, cost estimation, planning, scheduling, staffing, tracking.

Responsibilities:

- Coordinate planning, organization, control, integration and completion of engineering projects within area of assigned responsibility.
- Plan and execute cost, schedule, and technical objectives.
- Evaluate and approve design changes, specification and drawing releases.
- Coordinate activities concerned with project execution and resolving engineering design and test problems.
- End to end ownership from preliminary proposal to validated and deployed system: specification, architecture, simulation, schematic capture, PCB layout, board bring-up, board validation, and system validation.
- Collaborate with external stake holders to develop test specifications as defined from product specifications.
- Collaborate with internal teams to define mechanical, electrical, and software constraints.
- Support factory acceptance trials and site acceptance trails.
- Design electrical cabinet schematics and panel layout and spec components, devices, and interconnection with full system design in mind.
- Design schematic, layout, component creation/library management.
- Troubleshooting and debugging for the PCB.

Employee Name: Tarek Sharbo
Employee Signature:
Date:

Job Title: Hardware Department-Electronics Engineer

Description:

- You will support our engineering team throughout the development and prototyping of innovative systems.
- You will coordinate with our mechatronics and software teams to render the final system functional according to predefined specifications.
- You will also take part in the assembly, validation trials, debugging and system optimization.

Responsibilities:

- End to end ownership from preliminary proposal to validated and deployed system: specification, architecture, simulation, schematic capture, PCB layout, board bring-up, board validation, and system validation.
- Collaborate with internal teams to define mechanical, electrical, and software constraints.
- Support factory acceptance trials and site acceptance trails.
- Design electrical cabinet schematics and panel layout and spec components, devices, and interconnection with full system design in mind.
- Design schematic, layout, component creation/library management.
- Troubleshooting and debugging for the PCB.

Employee Name: Amir Tabakh

Employee Signature:

Date:

Job Title: Hardware Department-Electronics Engineer

Description:

- You will support our engineering team throughout the development and prototyping of drone.
- You will coordinate with our mechatronics and software teams to render the final system functional according to predefined specifications.
- You will also take part in the assembly, validation trials, debugging and system optimization.

Responsibilities:

- E-Plan/AutoCAD, Fusion 360 schematic capture for electrical panel design.
- Work in the lab with your hands (prototyping, soldering, building).
- performs the installation and functional testing of electrical components and systems per Engineering specifications, drawings and maintenance manuals ensuring a defect free system.
- Development of competitive HW concepts for telematics ECUs.
- Design schematic, layout, component creation/library management.
- Strong understanding of analog and digital circuit design.
- Troubleshooting and debugging for the PCB.
- Test and measurement with equipment.
- Assemble the prototype electrical PCB, both surface mount technology (SMT) and/or through hole components or mechanical assembly
- PCBA rework skills.

Employee Name: Adam Nur Rochman

Employee Signature:

Date:

Job Title: Hardware Department-Electrical Engineer

Description:

- You will support our engineering team throughout the development and prototyping of innovative automated robotic systems.
- You will coordinate with our electrical and software teams to render the final system functional according to predefined specifications.
- You will also take part in the assembly, validation trials, debugging and system optimization. We are looking for candidates with prior experience in Wire Harness and Batteries selection, E-mobility.

Responsibilities:

- Guide the evaluation and selection of battery cells and specification of battery packs and BMS.
- Design of electrical harnesses for power distribution, RF, communication and high-speed data signal.
- Maintaining a database of connectors, wires, and harness.
- Working with other electrical and mechanical engineers throughout the harness design process to implement best practice designs.
- Working directly with wire harness suppliers to resolve technical issues and drive high-quality cost-effective products.
- Knowledge of how to specify wires - current carrying capacity, insulation.
- Ability to interpret and create complex electrical wiring diagrams.

Employee Name: Afnan Ahmed Adil

Employee Signature:

Date:

Job Title: Hardware Department- Electrical Team Leader
Description:

As an **Electrical Team Leader** in the Micropolis team, you will be responsible for the development cycle of low-level software for Automotive, Robotics and IoT products. You will be supporting the entire engineering life cycle: scoping, sizing, cost estimation, planning, scheduling, staffing, tracking.

Responsibilities:

- Coordinate planning, organization, control, integration and completion of engineering projects within area of assigned responsibility.
- Plan and execute cost, schedule, and technical objectives.
- Evaluate and approve design changes, specification and drawing releases.
- Coordinate activities concerned with project execution and resolving engineering design and test problems.
- Guide the evaluation and selection of battery cells and specification of battery packs and BMS.
- Selection of traction motors, power electronics, and electric powertrain controls.
- Working with other electrical and mechanical engineers throughout the harness design process to implement best practice designs.
- Collaborate with external stake holders to develop test specifications as defined from product specifications.
- Collaborate with internal teams to define mechanical, electrical, and software constraints.
- Support factory acceptance trials and site acceptance trails.
- Design electrical cabinet schematics and panel layout and spec components, devices, and interconnection with full system design in mind.
- Participate in the prototyping, debugging and post-testing systems' optimization.
- Contribute to the technical documentation of the project results.

Employee Name: Ahmad Elwaly
Employee Signature:
Date:

Job Title: Hardware Department- Embedded Software Team Leader
Description:

As an **Embedded Software Team Leader** in the Micropolis team, you will be responsible for the development cycle of low-level software for Automotive, Robotics and IoT products. You will be supporting the entire Embedded Software team: scoping, sizing, planning, scheduling, staffing, tracking.

Responsibilities:

- Coordinate planning, organization, control, integration and completion of engineering projects within area of assigned responsibility.
- Planning, execute cost, task scheduling, and technical objectives.
- Evaluate and approve code changes, specification and software releases.
- Coordinate activities concerned with project execution and resolving engineering design and test problems.
- Collaborate with external stake holders to develop test specifications as defined from product specifications.
- Collaborate with internal teams to define mechanical, electrical, and software constraints.
- Working with other electronics engineers throughout the pcb design process to implement best practice designs.
- Deal with software system (requirement, design, development, verification, validation).
- Deal with communication protocols (CAN, Ethernet, I2c, SPI).
- Strong understanding of analog and digital circuit design.
- Develop the software components for Motors and the actuators.
- Deliver high-quality C code in a real-time embedded environment.
- Contribute to the elaboration of Embedded system for the optimal operation of system prototypes.
- Participate in the prototyping, debugging and post-testing systems' optimization.
- Contribute to the technical documentation of the project results.

Employee Name: Ahmed Fareg
Employee Signature:
Date:

Job Title: Hardware Department-Embedded System Engineer
Description:

- You will support our engineering team throughout the development and prototyping of innovative embedded systems.
- You will coordinate with our mechatronics and software teams to render the final system functional according to predefined specifications.
- You will also take part in the assembly, validation trials, debugging and system optimization.

Responsibilities:

- Working with other electronics engineers throughout the pcb design process to implement best practice designs.
- Deal with software system (requirement, design, development, verification, validation).
- Deal with communication protocols (CAN, Ethernet, I2c, SPI, WIFI,).
- Strong understanding of analog and digital circuit design.
- Develop software components for Motors and the actuators.
- Develop software components for D/A Sensors for the IOT system
- Troubleshooting and debugging for the PCB.
- Test and measurement with equipment.
- Deliver high-quality C code in a real-time embedded environment.
- Contribute to the elaboration of Embedded system for the optimal operation of system prototypes.
- Participate in the prototyping, debugging and post-testing systems' optimization.
- Contribute to the technical documentation of the project results.

Employee Name: Ahmed Mohamed
Employee Signature:
Date:

Job Title: Hardware Department-Embedded System Engineer
Description:

- You will support our engineering team throughout the development and prototyping of innovative automated robotic systems.
- You will coordinate with our mechatronics and software teams to render the final system functional according to predefined specifications.
- You will also take part in the assembly, validation trials, debugging and system optimization.

Responsibilities:

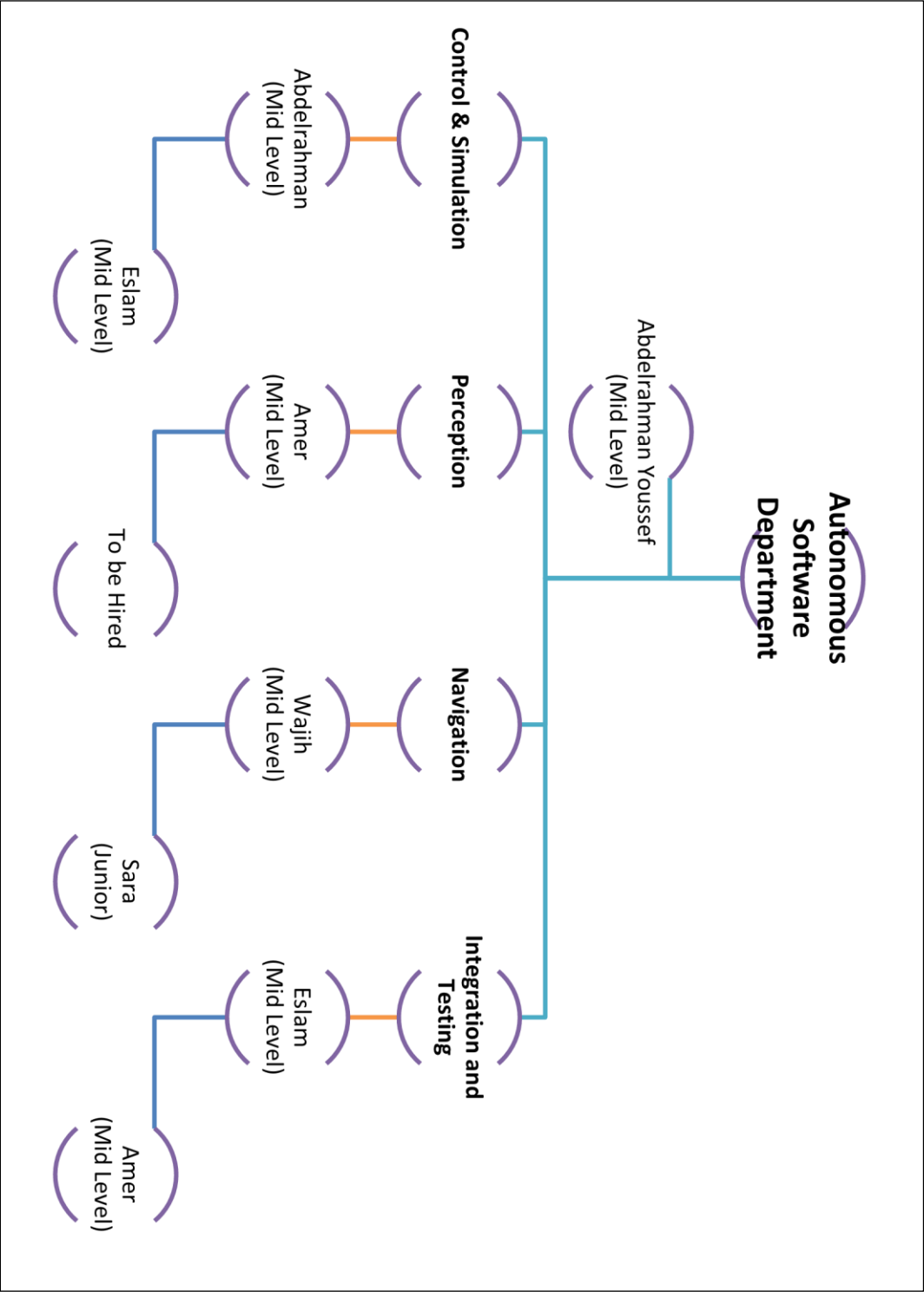
- Working with other electronics engineers throughout the pcb design process to implement best practice designs.
- Deal with software system (requirement, design, development, verification, validation).
- Deal with communication protocols (CAN, Ethernet, I2c, SPI, WIFI,).
- Strong understanding of analog and digital circuit design.
- Develop software components for Motors and the actuators.
- Develop software components for D/A Sensors for the IOT system
- Troubleshooting and debugging for the PCB.
- Test and measurement with equipment.
- Deliver high-quality C code in a real-time embedded environment.
- Contribute to the elaboration of Embedded system for the optimal operation of system prototypes.
- Participate in the prototyping, debugging and post-testing systems' optimization.
- Contribute to the technical documentation of the project results.
- Perform Functional safety analysis to meet the ISO standards for automotive and robotics.

Employee Name: Helen

Employee Signature:

Date:

JOB DESCRIPTIONS - Autonomous Software Department



Job Title: Autonomous Software Department - Control and Simulation Lead Engineer

Description:

As a **Control and simulation Team Leader** in Micropolis Autonomous Software Team, you will be responsible for the Modeling and simulation for different kinds of robotics systems and make sure to have a digital twin of them. You will support the rest of the Autonomous Software team with the proper environment to test their perception and navigation algorithms. You will be supporting the entire Autonomous Software team: scoping, sizing, planning, scheduling, staffing, tracking.

Responsibilities:

- Collaborates with developers, fellow engineers, project managers, clients, and other stakeholders to understand the requirements and scope of the project.
- Developing and improving Systems Engineering processes for the company that are appropriate for all levels of system development - from small R&D projects to large systems.
- Perform modeling, simulation, and analysis tasks assess system survivability, system effectiveness, and overall system performance in engagement / mission-level scenarios.
- Design/Review detailed requirements.
- Design testing scenarios for model verification.
- Develop tools to increase the efficiency of the MBD life cycle and the quality.
- Develop estimation and control algorithms through system modelling from concept, prototyping, testing and validation to production
- Develop solutions in form of software models that can be utilized for model-in-loop, software-in-loop, rapid control prototypes, code generation, and verification and validation
- Combine your solid understanding of software development using a model-based design approach with control system design to shape next-generation product functionality

Employee Name: **Abdelrahman Youssef**

Employee Signature:

Date:

Job Title: Autonomous Software Department - Control and Simulation Engineer

Description:

As a **Control and simulation** engineer in Micropolis Autonomous Software Team, you will be responsible for modeling, analyzing, and simulating different kinds of robotics systems. You will support the rest of the Autonomous Software team with the proper environment to test their perception and navigation algorithms.

Responsibilities:

- Developing and improving Systems Engineering processes for the company that are appropriate for all levels of system development - from small R&D projects to large systems.
- Develop mathematical models (e.g. MATLAB Simulink models) from scratch according to the specified high-level requirements.
- Design testing scenarios for model verification
- Develop estimation and control algorithms through system modelling from concept, prototyping, testing and validation to production
- Develop solutions in form of software models that can be utilized for model-in-loop, software-in-loop, rapid control prototypes, code generation, and verification and validation
- Combine your solid understanding of software development using a model-based design approach with control system design to shape next-generation product functionality
- Setting up reliable simulation environments for prototyping and testing purposes using robotics simulators (e.g. Gazebo, Webots, ...)

Employee Name: **Eslam Sherif**

Employee Signature:

Date:

Job Title: Autonomous Software Department -Navigation Software Team Leader
Description

As a **Navigation Team Lead** in Micropolis team, you will be leading the development process of autonomous navigation algorithms for robots' systems. You will be supporting the entire engineering life cycle: planning, scheduling, staffing, tracking, and cost estimation.

Responsibilities:

- Coordinate planning, organization, control, integration and completion of engineering projects within area of assigned responsibility.
- Plan and execute cost, schedule, and technical objectives.
- Evaluate and approve design changes, specification and drawing releases.
- Coordinate activities concerned with project execution and resolving engineering design and test problems.
- End to end ownership from preliminary proposal to validated and deployed algorithm: Navigation algorithms including (mapping, localization, navigation).
- Collaborate with internal teams to define robotic system constraints.
- Debugging algorithms.
- Participate in simulating, real-world testing for navigation algorithm optimization.
- Contribute to the technical documentation of the project results.

Employee Name: Wajih Mechlawi
Employee Signature:
Date:

Job Title: Autonomous Software Department -Navigation Software Engineer

Description:

- You will be responsible for Navigation algorithms including mapping, localization, and path/motion planning.
- You will support our engineering team throughout the development of autonomous navigation algorithms.
- You will coordinate with our internal Autonomous software teams to validate the functionality of the final system according to predefined specifications.
- You will also take part in the simulation, code integration, validation process, debugging and algorithm optimization.

Responsibilities:

- Research, develop and implement autonomous navigation algorithms.
- Deliver high-quality C++/Python code for simulation and real-world application.
- Debugging and testing algorithms.
- General overview of Robotics and Autonomous systems.
- Participate in simulating, real-world testing for navigation algorithm optimization.
- Working with other software engineers throughout the algorithm development process.
- Contribute to the technical documentation of the project results.

Employee Name: Sara Habeeb

Employee Signature:

Date:

Job Title: Autonomous Software Department -Perception Software Team Lead

Description:

As a **Perception Team Lead** in Micropolis team, you will be leading the development process of autonomous Perception algorithms for robots' system. You will be supporting the entire engineering life cycle: planning, scheduling, staffing, tracking, and cost estimation.

Responsibilities:

- Coordinate planning, organization, control, integration and completion of engineering projects within area of assigned responsibility.
- Plan and execute cost, schedule, and technical objectives.
- Evaluate and approve design changes, specification and drawing releases.
- Research, prototype, and bring to production perception algorithms that enable autonomous and semi-autonomous systems to understand the world around them and navigate safely
- Design and implement computer vision systems on an autonomous vehicle platform
- Work with data from various perception sensors including Lidar, Camera, and Radar
- Work with simulation and AV system testing teams to guide simulation sensors and perception evaluation in support of the perception stack

Employee Name: Amer Ghazal

Employee Signature:

Date:

Job Title: Autonomous Software Department -Perception Software Engineer

Description:

As a **Perception Engineer**, you'll develop algorithms that enable autonomous systems to understand the world to navigate safely. That includes detecting, tracking, and predicting the motion of pedestrians and vehicles, as well as characterizing obstacles and terrain, gathering the information from different types of sensors and fuse it to improve scene understanding.

Responsibilities:

- Research, prototype, and bring to production perception algorithms that enable autonomous and semi-autonomous systems to understand the world around them and navigate safely
- Design and implement computer vision systems on an autonomous vehicle platform
- Work with data from various perception sensors including Lidar, Camera, and Radar
- Work with simulation and AV system testing teams to guide simulation sensors and perception evaluation in support of the perception stack
- Optimize on-board perception code
- Design and implement sensor fusion algorithms for different types of sensors sets

Employee Name:
Employee Signature:
Date:

Job Title: Autonomous Software Department - Integration and Testing Team Lead

Description:

As an **Integration & Testing Team Lead** in Micropolis team, you will be leading the development process of autonomous **Integration & Testing** for robots' system. You will be supporting the entire engineering life cycle: planning, scheduling, staffing, tracking, and cost estimation.

Responsibilities:

- Coordinate planning, organization, control, integration and completion of engineering projects within area of assigned responsibility.
- Plan and execute cost, schedule, and technical objectives.
- Evaluate and approve design changes, specification and drawing releases.
- Combine, integrate, and refactor software components developed by other teams to work as standalone scripts, ROS1/2 packages, simulator plugins, and end-to-end APIs
- Setup and integrate thirdparty tools (e.g. MATLAB, Carla, Webots, ...) to work with software components
- Refcator and merge autonomos software components in a well architictured design that follows best practices and software design patterns
- Setup the CI/CD piplines to make sure that the process of developing and deploying new software components are well tested and run correctly on the pre-defined development environment using Docker, GIT, ...
- Implement high level cross-platform sensors drivers in collaboration with the Embedded Software team
- Setting up high-level hardware components (e.g. sensors, SBCs, ...) in collaboration with the Electronics and Hardware team for testing and deployment

Employee Name: Eslam Sherif

Employee Signature:

Date:

Job Title: Autonomous Software Engineer – Integration and Testing Engineer

Description:

As an **Integration & Testing Engineer**, you'll develop, maintain and test different parts of autonomous systems software with multiple 3rd-party tools and frameworks, and setting up the development environment for the software team with all needed tools and define the CI/CD pipelines to work with and make sure to deliver the software in optimized, production-ready, maintainable form.

Responsibilities:

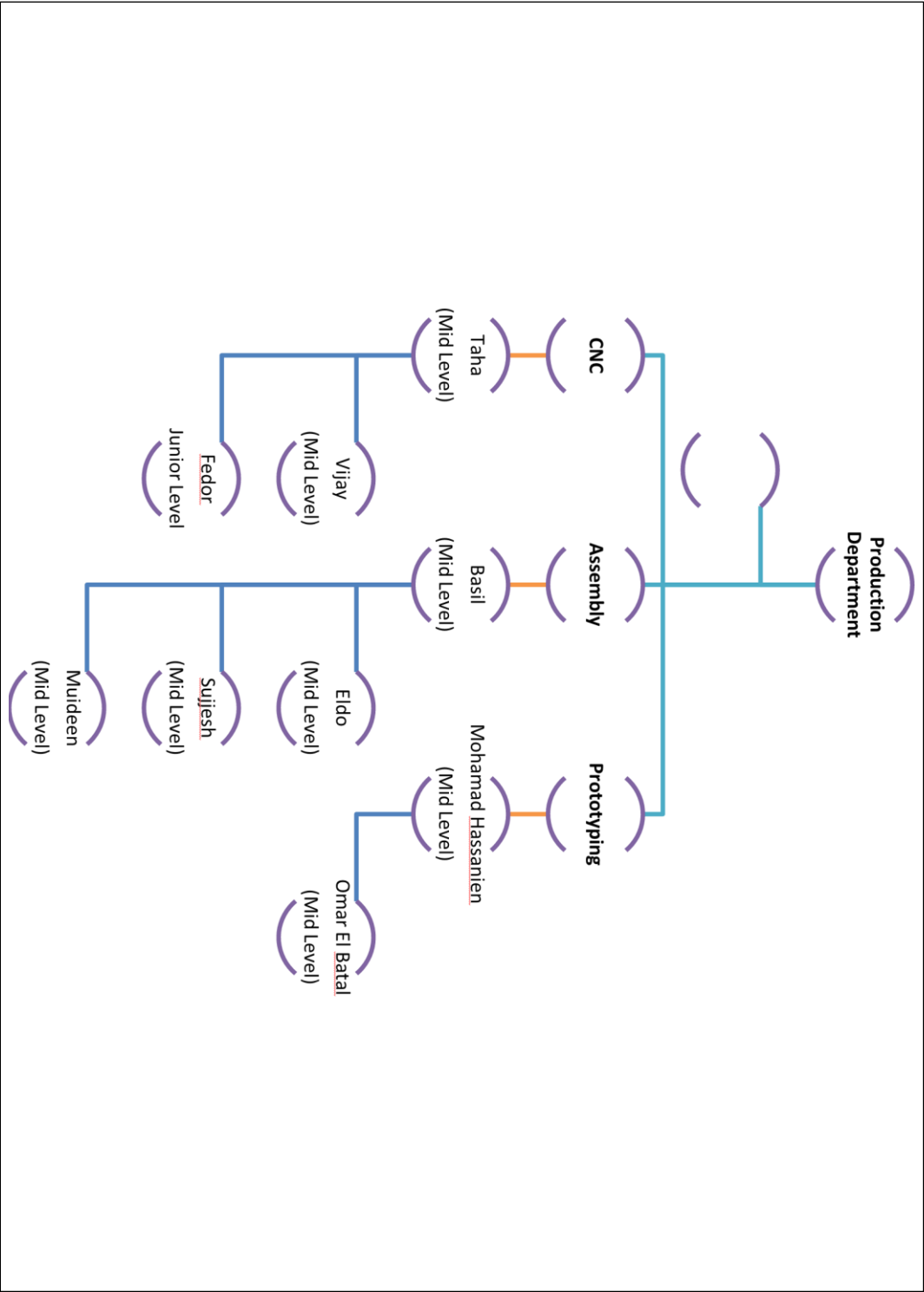
- Combine, integrate, and refactor software components developed by other teams to work as standalone scripts, ROS1/2 packages, simulator plugins, and end-to-end APIs
- Setup and integrate thirdparty tools (e.g. MATLAB, Carla, Webots, ...) to work with software components
- Refcator and merge autonomos software components in a well architictured design that follows best practices and software design patterns
- Setup the CI/CD piplines to make sure that the process of developing and deploying new software components are well tested and run correctly on the pre-defined development environment using Docker, GIT, ...
- Implement high level cross-platform sensors drivers in collaboration with the Embedded Software team
- Setting up high-level hardware components (e.g. sensors, SBCs, ...) in collaboration with the Electronics and Hardware team for testing and deployment

Employee Name: Amer Ghazal

Employee Signature:

Date:

JOB DESCRIPTIONS – Production & Assembly Department



Job Title: Production and Assembly Department - Production Assistant/Coordinator

Description:

Production Assistant/Coordinator, who will support our engineering team throughout the development and prototyping of innovative automotive systems. You will coordinate with our assembly team to render the final system functional according to predefined specifications. You will also take part in the assembly.

Responsibilities:

- Maintain the layout and the drawings according to the production plan.
- Maintain workshop area and support production team.
- Maintain tools / Equipment with standard procedure.
- Coordinate with production manager for pending parts.
- Support for dispatching materials.
- Prepare a list for all components needed for the assembly team.
- Provide regular feedback and reporting (both informal and formal) to production manager.
- Maintains inventory by checking stock to determine supply levels, placing and tracking orders, and verifying receipt of supplies.

Employee Name: Fedor Buerov

Employee Signature:

Date:

Job Title: Production and Assembly Department - CNC Machines Operator

Description:

CNC machine operators, manage computer numeric controlled (CNC) equipment from setup to operation, producing parts and tools from different resources including metal and plastic. They're tasked with monitoring machinery, inspecting finished products, and leading test runs. CNC Operator has an eye for detail and can efficiently perform calculations. The CNC operator handles the computer numerical control machine. Maintaining, setting, and adjusting the machine are all part of the operator's daily tasks. This includes knowledge of the software and hardware of the machine.

Responsibilities:

- Preparing and operating CNC machines to perform tasks such as drilling, grinding, milling etc.
- Understanding specifications of the task at hand and the desired result by reading blueprints, mechanical drawings etc.
- Translating instructions into computer commands so the machines can perform the correct function.
- Prepare and load raw materials and parts onto the machines.
- Supervise the machines while executing the tasks and make any necessary adjustments to produce a better result.
- Inspect and measure finished products and compare them with requirements to determine if the process has been completed properly.
- Check and maintain machinery daily to ensure functionality.
- Setting up tooling and tools attachments.
- Setting up the machine zero settings and make alignment to check everything before starting the manufacturing process.
- Familiar with the different measurements tools and how to use them accurately.
- Good Knowledge about G Coding and know how to program the machine in MDI Mode, write g code program manually and aware of G&D Tolerances.
- Enter all relevant Codes to specify the feed, speed, and cut of any toolpath for a CNC Machine.

Employee Name: Vijay N.Manjarekar

Employee Signature:

Date:

Job Title: Production and Assembly Department – Prototyping Team Lead

Description:

As a **prototyping team lead** in Micropolis team, you will be leading the development process of prototyping for robots' system. You will be supporting the entire engineering life cycle: planning, scheduling, staffing, tracking, and cost estimation. As the Prototyping team lead, you will be the process owner within the Engineering team structuring and maintaining the steps to go from design to manufacturing for 3d printers and prototyping machines.

Responsibilities:

- Coordinate planning, organization, control, integration and completion of engineering projects within area of assigned responsibility.
- Plan and execute cost, schedule, and technical objectives.
- Preparation, Handling & Maintenance of 3D Printers, Post Processing, Inspection etc.
- 3D Printing Material Management.
- Process parts from various 3D Printing Technologies.
- Finish and inspect fabricated parts.
- troubleshoot and fix common mechanical or electrical issues for the printers
- Provides support and/or project management for new product launches, machine installations, post machining processes, and other activities as technical requirements may demand.

Employee Name: Mohammad Hassanien

Employee Signature:

Date:

Job Title: Production and Assembly Department – R&D Material Engineer

Description:

The **R&D Material Engineer** develops processes, and tests materials. The engineer will study the properties and structures of materials to create robots that meet mechanical and performance requirements.

Responsibilities:

- Develop new materials and processing for any future vehicle design work.
- Evaluation of material equivalency of localized metal and ceramic components including the raw materials and metallurgical joining processes (welding, brazing etc.) to ensure that the materials meet the design intents.
- Materials design engineering support to drive issue resolution and cost savings.
- Generate and maintain engineering specifications and instructions.
- Develop new or modify current testing procedures that help evaluate the performance of production or prototype parts.
- Conduct tests on raw materials to understand if the product meets the quality standards and success criteria.
- Support concept development from formulation through to production implementation.
- Conduct hands-on experiments and develop thorough collaboration with internal and external resources.
- Advise technical staff on material capability, processing, and product performance.
- Independently execute research and development and continuous improvement projects.
- Deliver experimental samples and final products that satisfy cost, performance, and quality criteria.

Employee Name: Omar Batal

Employee Signature:

Date:

Job Title: Production and Assembly Department – Assembly Supervisor-Automotive

Description:

The Assembly Supervisor, supervises and coordinates the work of employees who work on assembly lines. prepares work schedules, assign work, and oversees the work product. being an assembly supervisor ensures operations and employees follow proper policies and procedures, he will cooperate with the Production team and report to the production team leaders to complete the assembly of manufactured parts within the assembly Structure from the design department.

Responsibilities:

- Overseeing work site safety and making sure all safety protocols are followed.
- Communicating with team members about production schedules, materials needed, etc.
- Maintaining records and documents of daily production and dispatched goods.
- Liaise and coordinate with support functions to progress issues concerning production planning and resource/skill allocation to ensure delivery of products to schedule within all relevant quality specifications.
- Support the implementation of engineering changes, production trials, model change and Robots build.
- Monitor the completion of tasks and ensure good performance and record on appropriate systems.
- Liaise and communicate with other departments and ensure an effective interface with is maintained.
- Feedback to the management team to share ideas and improve operation, recommending, supporting, and implementing continuous improvement activities and process and procedure improvements to optimize results and improve quality of delivery, in line with quality standards requirements delivery in line with Company and Customer requirements.
- Strong analytical and problem-solving skills and able to establish logical practical solutions.

Employee Name: Basil john

Employee Signature:

Date:

Job Title: Production and Assembly Department – Assembly Technician-Automotive
Description:

As **Assembly Technician** for prototyping, you will be responsible for supporting the build-out of our robots. You will support both the build-up of our robot test benches and prototypes. You will coordinate with our mechanical systems to render the final system functional according to predefined specifications.

Responsibilities:

- Complete disassembly, inspection and assembly of the robots
- Under direct supervision, assists in planning and conducting tests on materials, components, subassemblies, and tools
- Work closely with engineers and other technicians on building, diagnosing and testing the robots.
- Cleans and maintains work area and equipment, including tools.
- Positions parts and subassemblies by using templates or reading measurements.
- Maintains a safe and clean working environment by complying with procedures, rules, and regulations.
- Perform work from: test procedures, engineering drawings, and manufacturing process plans.
- Perform calibration and alignment checks; adjust, modifications, and replacements as directed; prepare prescribed compounds and solutions.
- Ability to make minor repairs to automotive components or systems refers to a proficiency in replacing parts or adjusting automotive systems or their components.
- Use mechanic's hand tools, holding fixtures, and specialized assembly equipment to build Robots and perform installation of details and maintain equipment and tooling for assigned projects.
- Perform final inspection of assembled components using various inspection equipment, gages, etc.
- Understand production schedule and daily assembly requirements of various product lines of parts.

Employee Name: eldo elias

Employee Signature:

Date:

Job Title: Production and Assembly Department – Assembly Technician-Mechanical

Description:

As Assembly Technician for prototyping, you will be responsible for supporting the build-out of our robots. You will support both the build-up of our robot test benches and prototypes. You will coordinate with our mechanical systems to render the final system functional according to predefined specifications.

Responsibilities:

- Remove oils, grease, dirt, and paint, from equipment surfaces in preparation for paint using abrasives, solvents, brushes, washing tanks, or sandblasters.
- Complete disassembly, inspection, and assembly of the robots
- Under direct supervision, assists in planning and conducting tests on materials, components, subassemblies, and tools
- Light fabrications work (ex. making a bracket, drilling holes for rivet nuts and installation)
- Work closely with engineers and other technicians on building, diagnosing, and testing the robots.
- Cleans and maintains work area and equipment, including tools.
- Positions parts and subassemblies by using templates or reading measurements.
- Assembles components by examining connections for correct fit, fastening parts and subassemblies.
- Maintains a safe and clean working environment by complying with procedures, rules, and regulations.
- Use mechanic's hand tools, holding fixtures, and specialized assembly equipment to build Robots and perform installation of details and maintain equipment and tooling for assigned projects.
- Perform final inspection of assembled components using various inspection equipment, gages, etc.
- Understand production schedule and daily assembly requirements of various product lines of parts.

Employee Name: Muideen Olakunle Olanrewaju

Employee Signature:

Date:

Job Title: Production and Assembly Department – CAD/CAM Engineer

Description:

As the CAD/CAM Engineer Role, you will be the process owner within the Engineering team structuring and maintaining the steps to go from design to manufacturing for 5 or 3 axis milling, turning, Bending and fiber laser machines. This will include creating procedures, designing fixtures, and engineered to order components, creating CAD/CAM template models, maintaining manufacturing data/programs/tools, and representing an attitude of continuous improvement for the process.

Responsibilities:

- Utilize CAM software to create toolpaths and verify machine simulations for 5 & 3 axis CNC milling machines and turning. Responsible for posting to various machines.
- Design internal fixturing, assembly tools, or other items necessary for manufacturing.
- Selecting Tooling System for various CNC Machine, Cutting Tools for CNC Milling machine, Selection of punch or dies for CNC Bending Machines.
- Ability for NC Coding as MDI option for various machines without CAM Software.
- Selecting Different Clamping Systems for Various CNC Machines.
- Calculating parameters like speed, power, and feed for different machine to keep high quality products from the manufacturing area
- Follows manual instructions regarding maintenance, and repair of machine tools to ensure proper functioning during service time.

Employee Name: Ahmed Taha

Employee Signature:

Date:

Job Title: Production and Assembly Department – CNC Production Team Lead Engineer

Description:

As CNC Production team leader in Micropolis team, you will be leading the development process of Manufacturing for robots' system. You will be supporting the entire engineering life cycle: planning, scheduling, staffing, tracking, and cost estimation.

Responsibilities:

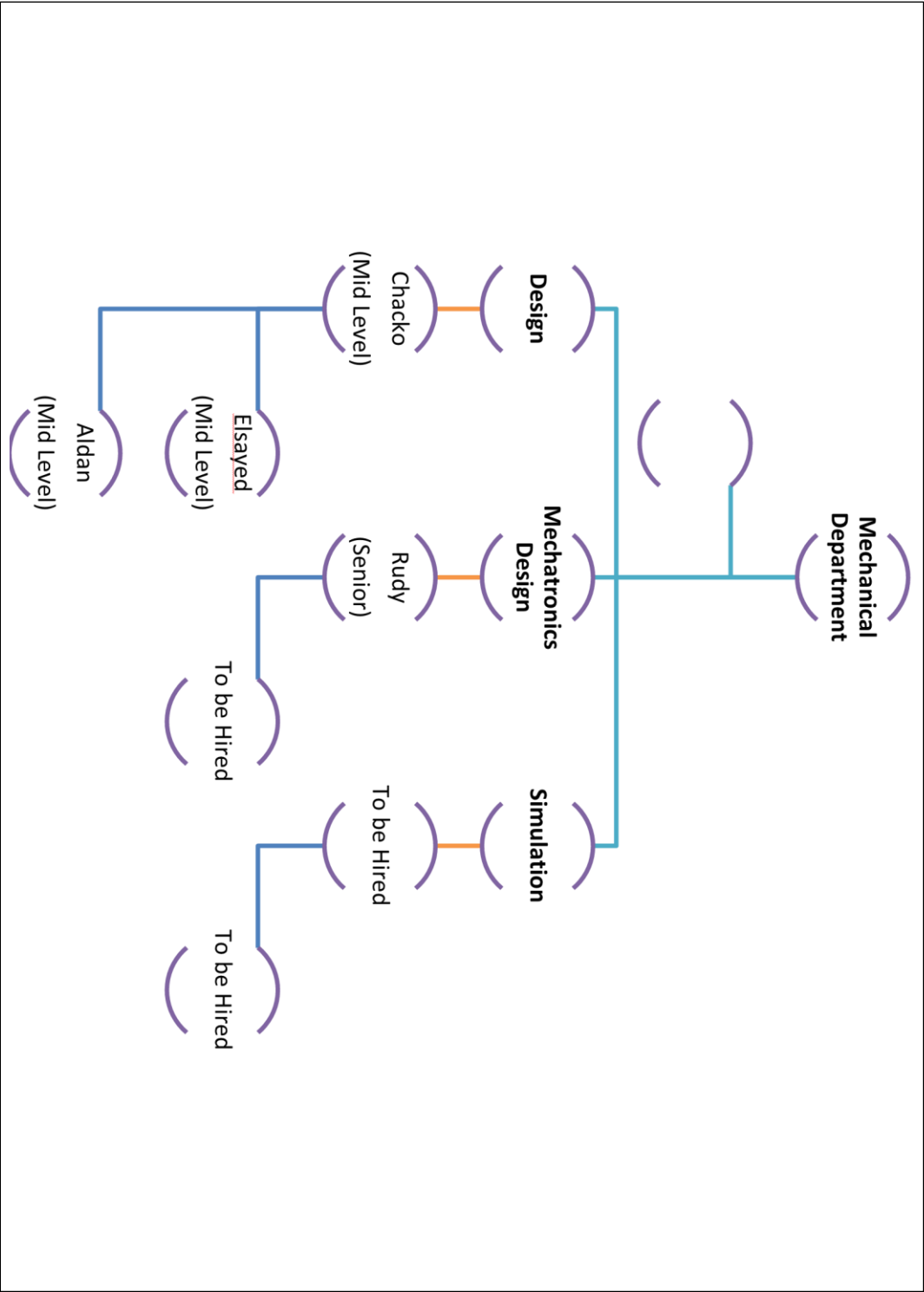
- Provide general technical/engineering support for manufacturing and application engineering.
- Implement improvements with manufacturing regarding machining processes.
- Processes quotes ensuring that the job fits our processes, the machines are assigned properly, cycle times are correct.
- Provides support and/or project management for new product launches, machine installations, post machining processes, and other activities as technical requirements may demand.
- Manages and directs the Production area activities for the Assembly & Manufacturing department and performs supervisory functions as established by management for this Project
- Schedules the Production Area sessions in coordination with the Assembly supervisor & Design Department head.
- Follows manual instructions regarding maintenance, and repair of machine tools to ensure proper functioning during service time.
- Contributes to the formulation and modification of Software, Hardware and technical procedures adopted in the R&D, and ensures such procedures are followed.
- Perform design rule checks and edit data to comply with manufacturing guidelines.
- Maintaining Statistical and financial records
- Liaising with suppliers and R&D Staff
- Develops Manufacturing Processes by studying product requirements, researching testing methods and conferring with equipment vendors.

Employee Name: Ahmed Taha

Employee Signature:

Date:

JOB DESCRIPTIONS – Mechanical Department



Job Title: Mechanical department – Mechanical Design Team Lead

Description:

As a Mechanical Designer Team leader in Micropolis team, you will be leading the development process of designing for robots' system. You will be supporting the entire engineering life cycle: planning, scheduling, staffing, tracking, and cost estimation. coordinate with mechatronics and electronics teams to develop functional mechanical systems according to predefined specifications. Also take part in the concept development, part & assembly design, simulation, prototyping and production.

Responsibilities:

- Coordinate planning, organization, control, integration and completion of engineering projects within area of assigned responsibility.
- Plan and execute cost, schedule, and technical objectives.
- Evaluate and approve design changes, specification and drawing releases.
- Generate concepts based on design requirements and develop functional parts & assembly using CAD software and Manage the CAD files in line with the company file structure
- Perform engineering calculations, structural simulations on designs to optimize performance, weight, and cost with an objective to enhance durability and reliability
- Interact with cross-functional teams (Electrical& Electronics engineers) from other disciplines to understand various requirements in the product and develop the design within the time limit.
- Prepare detailed drawings and necessary documents for the production team and coordination with the procurement team.
- Find out suitable solutions for the design challenges and Coordinate with the assembly engineer for any kind of clarification or guidance if required.
- Preparing technical reports, design specifications documents, and operational manuals.

Employee Name: Chacko Thomson

Employee Signature:

Date:

Job Title: Mechanical department – Mechanical Design engineer

Description:

Mechanical Design engineer, who will support engineering team throughout the development and prototyping of innovative automated robotic systems. coordinate with mechatronics and electronics teams to develop functional mechanical systems according to predefined specifications. Also take part in the concept development, part & assembly design, simulation, prototyping and production.

Responsibilities:

- Generate concepts based on design requirements and develop functional parts & assembly using CAD software and Manage the CAD files in line with the company file structure
- Perform engineering calculations, structural simulations on designs to optimize performance, weight, and cost with an objective to enhance durability and reliability
- Interact with cross-functional teams (Electrical& Electronics engineers) from other disciplines to understand various requirements in the product and develop the design within the time limit.
- Prepare detailed drawings and necessary documents for the production team and coordination with the procurement team.
- Find out suitable solutions for the design challenges and Coordinate with the assembly engineer for any kind of clarification or guidance if required.
- Preparing technical reports, design specifications documents, and operational manuals.

Employee Name: Elsayed Gad

Employee Signature:

Date:

Job Title: Mechanical department – Packaging Specialist

Description:

Packaging specialist, who will support engineering team throughout the development and prototyping of innovative automated robotic systems. coordinate with mechatronics and electronics teams to develop appropriate packaging for the product according to the requirement. Also take part in the concept development, part & assembly design, simulation, prototyping and production.

Responsibilities:

- Develop Packaging for the products in line with the concept drawing and aesthetic, electronic, electrical requirement.
- Designs to optimize Assembly performance, weight, and cost with an objective to enhance durability and reliability
- Interact with cross-functional teams (Electrical& Electronics engineers) from other disciplines to understand various requirements in the product and develop the design within the time limit.
- Prepare detailed drawings and necessary documents for the production team and coordination with the procurement team.
- Coordinate with 3D printing engineer and provide the necessary cad files for production.
- Find out suitable solutions for the design challenges and Coordinate with the assembly engineer for any kind of clarification or guidance if required.
- Preparing technical reports, design specifications documents, and operational manuals.

Employee Name: Aldan David

Employee Signature:

Date:

Job Title: Mechanical department – Mechatronics Design Team Leader

Description:

As a Mechatronics Design Team leader in Micropolis team, you will be leading the development process of designing Mechatronics system for robots. You will be supporting the entire engineering life cycle: planning, scheduling, staffing, tracking, and cost estimation. coordinate with mechatronics and electronics teams to develop functional mechatronics systems according to predefined specifications. Also take part in the concept development, part & assembly design, simulation, prototyping and production.

Responsibilities:

- Coordinate planning, organization, control, integration and completion of engineering projects within area of assigned responsibility.
- Plan and execute cost, schedule, and technical objectives.
- Evaluate and approve design changes, specification and drawing releases.
- Designing, developing and enhancing electro-mechanical systems and mechatronic devices.
- Generate concepts based on design requirements and develop functional parts & assembly using CAD software and Manage the CAD files in line with the company file structure
- Perform engineering calculations, structural simulations on designs to optimize performance, weight, and cost with an objective to enhance durability and reliability
- Interact with cross-functional teams (Electrical& Electronics engineers) from other disciplines to understand various requirements in the product and develop the design within the time limit.
- Prepare detailed drawings and necessary documents for the production team and coordination with the procurement team.
- Find out suitable solutions for the design challenges and Coordinate with the assembly engineer for any kind of clarification or guidance if required.
- Preparing technical reports, design specifications documents, and operational manuals.

Employee Name: Rudy Evezard

Employee Signature:

Date:

JOB DESCRIPTIONS – Application Software Department

