**Intern**

**NT-nTech Solutions Pvt Ltd, Coimbatore**

During my internship at NT-nTech Solutions Pvt Ltd in Coimbatore, I had the privilege to work on an innovative project called **Automatic TV Lifting**. This project aimed to develop a cutting-edge mechanism that would lift a television automatically, optimizing home space and providing users with the flexibility to view the TV from any angle. As the intern entrusted with significant responsibilities, I played a pivotal role in various aspects of the project, from component selection to programming and optimization.

One of my primary responsibilities was to identify the project-specific **DC motor, microcontroller, and motor drivers based on the weight of the TV and the distance between the TV and the ground**. This involved meticulous research and analysis to ensure that the selected components would meet the requirements of the project effectively. By carefully considering factors such as torque, speed, and power consumption, I was able to identify the most suitable components that would ensure the smooth operation of the TV lifting mechanism.

**Programming the PID** controller was another crucial aspect of my role in the project. The PID controller played a vital role in controlling the movement of the lifting mechanism, ensuring precise and stable performance. As the responsible team member, I programmed the PID controller to regulate the speed and position of the lifting mechanism accurately. This involved writing code, implementing the Proportional, Integral, and Derivative control algorithms, and fine-tuning the controller parameters to achieve optimal performance.

Additionally, I was tasked with performing electronic calculations to obtain the necessary components for the project. This involved calculating parameters such as **voltage ratings, current limits, and power requirements for the DC motor and motor drivers**. By accurately calculating these parameters, I ensured that the selected components would be capable of handling the load and operating conditions of the TV lifting mechanism effectively.

One of the key objectives of the project was to optimize home space while providing users with the flexibility to view the TV from any angle. To achieve this, I collaborated closely with the design and engineering teams to develop a compact and efficient lifting mechanism. By leveraging innovative design principles and advanced engineering techniques, we were able to create a system that maximized space utilization while delivering seamless functionality.

Furthermore, I am proud to mention that **I was ranked as the star team leader** during my internship at NT-nTech Solutions Pvt Ltd. This recognition highlights my leadership skills, ability to collaborate effectively with team members, and dedication to achieving project goals.

In conclusion, my internship experience at NT-nTech Solutions Pvt Ltd provided me with invaluable **hands-on experience in developing Embedded systems**. Working on the Automatic TV Lifting project allowed me to apply my technical knowledge and skills in a practical setting, and I am grateful for the opportunity to have contributed to the success of the project.