Polytechnic University of the Philippines

Paranaque Campus

Bachelor of Science in Computer Engineering

Case Study 3:

Arduino vs. Rapsberry Pi

CMPE 30184

Microprocessors

Submitted to:

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Executive Summary

One of the most important aspects of any IoT solution is selecting the appropriate hardware. This selection has a direct impact on crucial aspects of your IoT project, including as functionality, security, and scalability. Raspberry Pi models and Arduino boards are the most popular alternatives for prototyping and piloting, but which one is appropriate for your solution? They've grown in popularity among students, professionals, and amateurs and enthusiasts alike. However, programmers who are just getting started with projects are sometimes torn between the two and are unsure which board to learn and utilize for their projects.

Background

These single-board computer businesses, Arduino and Raspberrry Pi have secured their positions and are adores by millions of people especially engineers all across the world. Arduino board is significantly easier to use according to many studies and research compared to Raspberry Pi. Along with the intention of encouraging inventor aspirants to pursue careers in programming, it why this Raspberry Pi single-board computer was created. Python programming language is very relevant to these computers and the Pi in Raspberry Pi refers to Python itself. On the other side, Arduino focuses in IDE and C++ upon placing a limit on what can be done in high-end applications.

Case Evaluation

Raspberry Pi and Arduino have some distinguishing features that are both subtle and substantial. Both boards offer a big list of advantages and disadvantages, but they will work wonderfully if the criterion is met. Regardless of how unlike they appear, there is a scenario in which they can collaborate to maximize the project's production.

Proposed Solution

Based on the study, we highly recommend that the Arduino board is great for beginners who want to learn about electronics or for those who come from an electronics background and want to try out some modest projects. If you already know Linux and want to expand your skills by developing complicated networking electronic projects, the Raspberry Pi is the way to go.

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