

Letter of Recommendation

To Whom It May Concern

It is my great pleasure to write a letter of recommendation for the student Jakov Begović because of his success on the project "Robotic Car and Controller". The project was developed as part of the course Embedded Systems Development at the University of Zagreb, Faculty of Organization and Informatics. It was developed with the help of his colleagues: Antonio Bernobić, Vinko Bohnec, and Mateo Zović. They developed it in their third year of undergraduate studies.

The project included the development of a robotic car and an accompanying controller. The robot received commands from the controller, controlled the operation of the motors, controlled the operation of the buzzer, controlled the operation of LEDs, and adjusted the operation of the motors depending on the data collected via two ultrasonic sensors. The controller received user inputs, transmitted them to the robot, and controlled the operation of a buzzer. The ESP32 microcontroller and the ESP-NOW protocol were used.

The robot was made up of two stepper motor controllers, four motors, four wheels, three batteries, two LEDs, a buzzer, a microcontroller, a DC voltage regulator, and two ultrasonic sensors. The controller included five buttons, a buzzer, a portable battery, and a microcontroller. A 3D model of a casing for the controller was developed and printed.

For the purposes of documenting the project, nine UML diagrams and two connection diagrams were developed.

This task tested their programming skills, ability to use electronics, and competence in designing accompanying structural components. The fact that they scored complete points does not give the project enough praise. The amount of effort invested and the quality achieved outweigh the range of that metric. Their attention to detail elevated the quality of the project and expanded it beyond expected parameters.

Because of the aforementioned, I recommend student Jakov Begović for employment in your company. I have complete confidence in his dedication to learn and strive as a young informatics engineer.

Sincerely,

Dr. Boris Tomaš

Postdoctoral Research Fellow at Trinity College Dublin

and Smart Dún Laoghaire Programme Manager

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Signature:


