



EMBEDDED SYSTEMS
RESEARCH
GROUP

University of Minho
School of Engineering

Integrated Master in Industrial Electronics and
Computers Engineering

Project 1

Zephyrus

Hand Motion-Controlled Remote Car

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1 Problem Statement

Recent developments in research of motion-tracking and gesture-controlled robotic products have shone a new light on entertainment, special needs teaching and accessibility-focused applications. Products like motion-sensing console controllers, robotic arms, and prosthetics have popularized and extended the knowledge on gesture and impulse-based technologies throughout the past few years.

To provide a better understanding of the concepts associated with the forementioned technologies, the project will consist of a gesture-controlled car with a wristband as a remote controller. The user will be able to accelerate and steer the vehicle using natural wrist and finger movements.