

# Réalisation d'un système de navigation d'un quadricoptère piloté par carte Raspberry Pi

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**Abstract:** This thesis is devoted to the realization of a navigation system specific to the quadricopter based on the Raspberry Pi 3 B development board. The latter must acquire and process in real time the information from the MPU6050 and GPS sensors, integrate scenes captured by a Pi camera integrated with the system produced, command and control the quadcopter remotely via a joystick and a smartphone. The results obtained by the sensors and the camera to be displayed on the smartphone, which represents the ground station.

**Keywords :** UAV, quadricopter, navigation system, Raspberry Pi 3B, MPU6050, GPS, real time, Pi camera, joystick, smartphone.