Abstract

This project is to develop an application for an Android phone to control a quadrotor UAV flying in an indoor environment. The application controller should be able to control the UAV to take-off, landing, and flying to a specific location. The interface of mobile phone is able to send the user instructions to the quadrotor via wireless communication. The quadrotor receives the instructions and controls rotors to fly with the aid of on-board sensors. The tilting and turning the phone can be interpreted as the instructions to dictate the quadrotor to move. The camera on the quadrotor should be able to send the video to the mobile phone. Advanced feature would be an autonomous tracking function, which enables the quadrotor to track a target autonomously via image processing.