UAV Game (SL2a-14)

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Overview

Unmanned Aerial Vehicles (UAVs) are aircraft without a human pilot aboard, it has widely drawn attention from the world in that numerous developments and applications have been conducted. With the rapid advancement of smartphone technology, there exists a potential to connect UAVs with our smartphones via simple setup. The integration of UAVs and smartphones can significantly simplify the control of UAVs such as pre-program the flight path by drawing on smartphone directly. Ultimately, a more flexible, convenient and user-friendly UAV control interface can be provided to the users and most importantly, boosting the gaming experience.

Methodology

AOT Bundle from Android Developer
This consists of Eclipse + AOSP (Android Open Source Project) plugins, Android SDK Tools, Android Platform-tools, a version of the Android platform and a version of Android system image for the emulator.

Android SDK
This provides the API libraries and developer tools necessary to build, test, and debug apps for Android.

Android Studio
In this project, Android Studio is used for development of the Android apps.

Radio telemetry
An additional hardware module that attached to Android smartphone via OTG cable to Micro USB port to setup telemetry connection between UAV and smart phone.

3DR Services app
A third-party app that enable the communication between smartphone and UAV.

Droplet-Android Client library
A client library that contains packages provided by 3DR Services layer. Some classes will be included in our app to enable the features and actions of the UAV.

Result