DroneMissions: A Visual Communication System for Emergency Drone Operations

Figure 1: Pilot app

Drone Missions — PILOT

- Mobile application providing an interface for controlling and communicating with a drone and commander applications.

- Able to receive drawings, image commands, messages and annotation icons from companion.

- Can establish connections with commander apps and enable remote drone control for connected commander apps.

- Displays information about the drone and shares it with its companions.

Drone Missions — COMMANDER

- Companion application able to connect directly to the pilot app, allowing wireless data mediation.

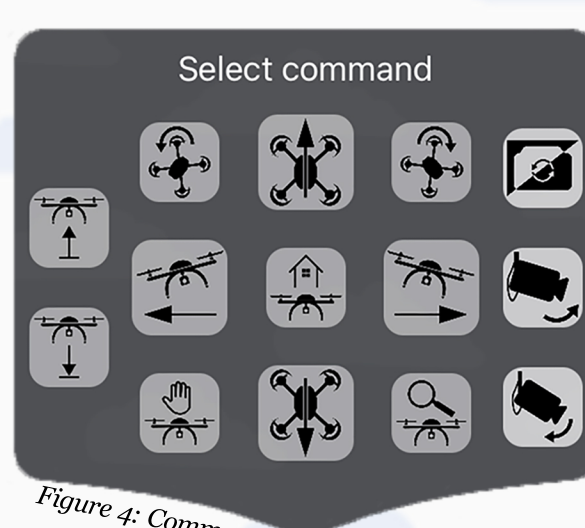- Provides real-time information on the drone's status and displays its video feed.

- Allows direct intervention of the pilot's interface through drawings, annotation icons and image commands.

- Features a map that shows current location of the drone, pilot and user using companion app.

- Provides the ability to request access to control the drone.

- Offers virtual joysticks to remotely control the drone.

Figure 2: Commander app

Figure 3: Colors

Drawing type selection

Figure 4: Commands

Command icon selection

Figure 5: Anotations

dragNdrop icon selection

Martin Rakús, xrakus04@stud.fit.vutbr.cz

Supervisor: Ing. DANIEL BAMBUŠEK

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