Team Information

Picture of vehicle:

gas engine (RF-Helicopter)

electric engine (Reconnaissance-Helicopter)

Name of vehicle: TBD, 2 autonomous helicopters with gas / electric engines and flight control

Picture of team leader:

Name of team leader: Prof. Dr. Werner Schröder

Team Name: Hochschule Offenburg

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Team Description: The Team “Hochschule Offenburg” would like to participate in the two scenarios “reconnaissance” and “camp security” with two partly autonomous helicopters in tandem configuration. One of the helicopters is used as an RF-relay for the low flying

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reconnaissance helicopter equipped with cameras. The helicopters have fuel / electric engines with a dry weight of about 8 kg (fuel) and 6 kg (electric). They are equipped with an AHRS, an INS with GPS-augmentation and a flight control computer. The reconnaissance helicopter will be flown according to the camera images sent from the helicopters to the ground station. In order to hold the RF-connection, the RF-relay helicopter will autonomously fly above the reconnaissance helicopter. In order to hold the RF-link, the RF-relay helicopter has to fly in line-of-sight of the ground station. Depending on the shape of the area, this may require flight altitudes of up to 300m above ground. The ground station uses a tracking antenna with patch/parabola antennas and is equipped with monitors and the control systems.

Sponsors: Hochschule Offenburg

Selection of scenario:

1. Reconnaissance and surveillance
2. Camp security

Proof of citizenship: