AMUSE

Self-designed octocopter controlled by a pixhawk autopilot with an Intel Nuc (I5) for extra computational capabilities. It also has a Jexton TX1 GPU and a velodyne 3D laser as extra payload. It is designed for accomplish different task, using different types of sensors, like stereo cameras, laser sensors, GPS, altimeters, etc.

Key Features

- Payload: 3D Lidar, Zed Camera, IMU, RTK GPS, Jetson Compute
- Speed: 2m/s Horizontal, 1m/s vertical
- Power Supply 6S LiPo
- MTOW: 14kg
- Endurance: 10 minutes
- Weight: 12kg
- Max speed: 4m/s Horizontal, 1.5m/s Vertical

Possible Applications

- Aerial recognition and data obtainment
- First person views flights and pilot training
- Structure inspection for maintenance works
- Tracing of objectives and surveillance
- Localization and mapping

Access information

Corresponding infrastructure	Universidad de Sevilla Robotics, Vision and Control Group
Location	Camino de los Descubrimientos, 41092 Sevilla, Spain
Unit of access	Working day

Technical specifications

Endurance	10 minutes
Average speed	2m/s Horizontal, 1m/s Vertical
Altitude	20 m
Power supply	6S LiPo
Interface	Ros/Ubuntu
Weight	12kg
Autopilot	Pixhawk (PX4)