# 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

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|---|---|
| **Corresponding infrastructure** | Universidad de Sevilla<br>Robotics, Vision and Control Group |
| **Location** | Camino de los Descubrimientos,<br>41092 Sevilla, Spain |
| **Unit of access** | Working day |

## Technical specifications

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|---|---|
| **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) |