EMBENTION

*Enabling drones to populate our skies*

# LM 1.0 AUTOPILOTS

## CONTROL SYSTEM FOR LOITERING MUNITION

**High performance flight control system for Loitering Munition applications.**

**Single board layout, embedding computer vision for GNSS denied navigation and target follow.**

## COST-EFFECTIVE LOITERING MUNITION

### SMALL & LIGHTWEIGHT

The OEM design with a high level of miniaturization fits all kinds of aircraft

### GNSS DENIED

Embedded SLAM technology for aircraft flight in GNSS denied operations

### TARGET FOLLOW

Computer vision algorithms for target selection on screen and auto-follow

VERONTE AUTOPILOTS

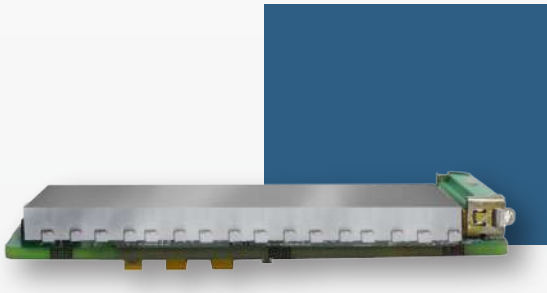
www.embention.com sales@embention.com +34 965 115 421

## MAIN FEATURES

| | |
|---|---|
| All Vehicles | Plane \| Multi \| Heli \| Others |
| 100% Autonomous | Mission & payload |
| Manual Control | On pilot demand \| Fly-by-camera |
| Embedded System | Sensors \| GNC \| Computer vision |
| Functions | Autopilot \| Vision navigation \| Target follow |
| Internal Sensors | IMU \| Magneto \| Barometer \| Pitot \| GNSS |
| I/O Ports | PWM \| GPIO \| Analog \| CAN Bus \| RS232 |
| Communications | LOS \| Satcom \| Serial port |

## FOR LOITERING MUNITION

| | |
|---|---|
| Autopilot | Fully autonomous flight control |
| GNSS Denied | Vision based navigtion |
| Target Identification | Target selection & follow |
| Terminal Impact | User selectable angle of impact |
| Payload Activation | Payload triggering \| Safety mechanisms |
| Data Wipe | Onboard data erase prior to impact |
| Encryption | Data encryption |
| Single Use | Up to 25h operation |

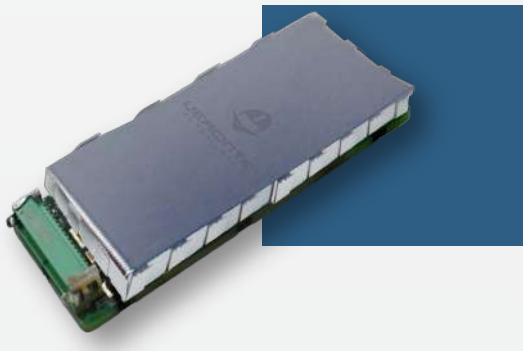


## USER PROGRAMABLE

| | |
|---|---|
| Programs | Model based design \| Customization \| PID level |
| Phases | Takeoff \| Landing \| Cruise \| Impact \| More |
| Automations | Failsafe \| Phase change \| Operation \| Payload |
| Navigation | Sensor mix \| Kalman filter \| External sensors |
| Peripherals | Gimbal \| Altimeter \| Cameras \| Others |
| Compatibility | Custom protocols \| Mission computer |

## SAFETY & ROBUSTNES

| | |
|---|---|
| Design Standards | Strict design standards \| DO178-C \| DO254 |
| Failsafe | Custom failsafe routines |
| Protections | ESD, overtemperature, short circuit, RP |
| Reliability | ATR, DDP & DoD |
| Certification | ISO9001 Quality |



## GENERAL

| | |
|---|---|
| Power Input | 6.5 –36VDC |
| Temperature | -40 to 60ºC |

[P008593] Veronte Autopilots: LM 1.0

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