



**U**NMANNED  
**A**ERIAL  
**V**EHICLES

**SURVEILLANCE**  
**ASSAULT**

# SURVEILLANCE

# ASSAULT

**KIS** renowned capabilities include all life cycle phases of its systems. It has an organizational and technological structure in all stages after the emergence of the system idea, research and product development, production and after-sales activities.

Our Research and Development capabilities in affiliation with engineering teams from ODTU (Middle East Technical University) include the complete design and development of UAV systems, aerial platforms and ground components with their subsystems. In addition to that, our activities are carried out according to the relevant military and civilian standards.

Fully in-house Tailor-Made Designed UAV systems are manufactured with their subsystems and components, integrated and offered to service after passing the detailed testing and quality control stages.

In our production activities, modern machines and equipment are used for high technology production. 3 and 5-axis advanced CNC machines, automatic assembly machines, autoclaves wide enough to produce long parts such as wings, composite furnaces and high precision measuring devices of various sizes are among the important equipment in our production area.

**KIS** envisions and has inspiration to build the most advanced technological systems on the global stage by advancing unmanned aerial systems. In line with their principles, we strive to ensure as independent, Turkey-centric a technology stack as possible. We further attempt to dovetail emerging high technology with mission-critical functions to offer our armed forces systems that are reliable, integrated, and complete.

**U**NMANNED  
**A**ERIAL  
**V**EHICLES



# SURVEILLANCE

**KSDS**

UAV UVM-2E-R1  
SURVEILLANCE



## **KSDS (KIS Surveillance Drone System)**

**KSDS** is a multi-rotor reconnaissance UAS solution engineered for general purpose reconnaissance and surveillance missions with indigenous mission planning software, autonomous intelligence, and operational capabilities.

It can be controlled via Ground Station and be deployed and operated by a single personnel. **KSDS** can be used effectively in tactical reconnaissance and surveillance missions, with its abilities to track fixed and moving targets and to automatically switch mission supported by indigenous and real time image processing and deep learning algorithms.

The system is comprised of "UAV Platform" and "Ground Control Station" components.

## **KSDS**

UAV UVM-2E-R1  
SURVEILLANCE



## GENERAL SPECIFICATIONS

### Aerial Vehicle Technical Specifications

<i>Number of Rotors</i>	4
<i>Propeller Specifications</i>	30x9
<i>Ammunition Capacity</i>	Surveillance
<i>Data and Video Link</i>	30 km -
<i>Autopilot</i>	YES
<i>Flight Time</i>	30 min with 2.6 kg payload
<i>Cruise Speed</i>	15 m/sec
<i>Max Speed</i>	20 m/sec
<i>Flight Range</i>	More than 15 km radius
<i>Length (With Propeller)</i>	2012 mm
<i>Length (Without Propeller)</i>	1200 mm
<i>Rotor Diameter</i>	812 mm
<i>Wind Resistance</i>	13 m/s
<i>Battery</i>	12S 60AH (Li-Ion Battery)
<i>Charger</i>	YES
<i>Max. Altitude</i>	6000 m MSL
<i>Max Payload</i>	2.6 kg
<i>MTOW</i>	25.6 kg
<i>Max. Climb rate</i>	5 m/s
<i>Max. Descent rate</i>	3 m/s
<i>Max wind resistance</i>	13 m/s
<i>Operational range</i>	>=15 km radius
<i>Practical ceiling</i>	5000 msl
<i>Endurance</i>	30 min with 2kg payload
<i>Onboard power supply</i>	48 V - 24 V - 12 V - 5 V
<i>Temperature range</i>	-40°, + 60 ° C
<i>Base takeoff and landing area</i>	3m x 3m
<i>Take off and landing</i>	Fully Autonomous
<i>Portable GCS</i>	YES
<i>Dustproof and waterproof</i>	YES
<i>Rugged Case</i>	YES

### Camera Systems

<i>Thermal Camera</i>	704x576 Thermal 3840x2160 (ch1) 1920x1080 (ch2) 3.5X Optical Zoom
<i>Daytime Camera with Zoom</i>	3.5X Optical Zoom
<i>Recording</i>	1080p

### Ground Station

<i>Rugged Control Laptop</i>	YES
<i>Tracker Antenna 360</i>	YES
<i>Rugged Case</i>	YES

### GPS

<i>Antijamming System</i>	Tualaj ANTY
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### Mission Control & AUTO Pilot Software Specifications

<i>Automatic Take Off &amp; Landing</i>	YES
<i>Automatic Return To Base</i>	YES
<i>Blind Flight Control without GPS</i>	YES
<i>Fleet Flight Feature</i>	NO
<i>Video Log &amp; Transmit At Line Of Sight</i>	YES
<i>Interactive Mission &amp; Flight Planner</i>	YES

### Camera Recording

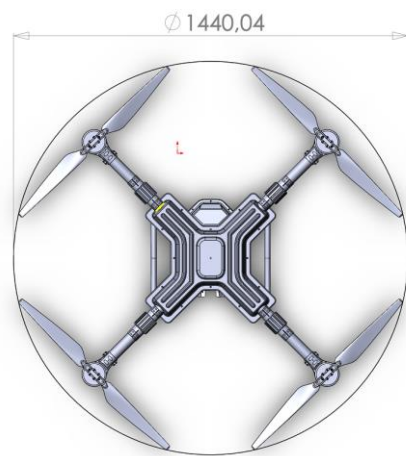
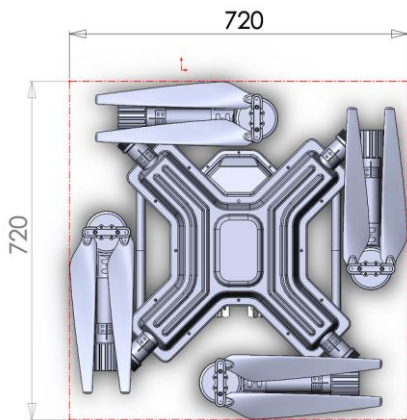
Video recording in Micro SD Card, Photo Saving

### Antijamming GPS Options

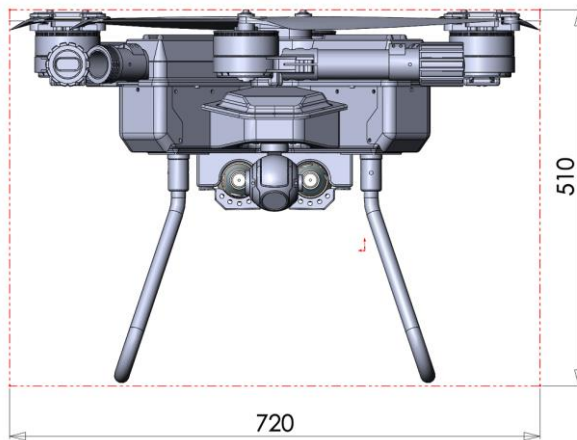
Tualaj 8200 / 4200 / 4100

# KSDS

## UAV UVM-2E-R1 SURVEILLANCE



## DIMENSIONS



**KSDS**

UAV UVM-2E-R1  
SURVEILLANCE



# ASSAULT

**KMDS**

UAV UVM-2E-R2  
ASSAULT



## **KMDS (KIS Mortar Drop System)**

**KMDS** is an Ammunition Drop UAV is an Unmanned Aerial Vehicle solution that can carry 2 x 60mm Mortars or 1 x 82mm Mortar Ammunitions adapted to a SAFE CARRY mechanism that releases the safety lock system automatically. **KMDS** can carry out the planned task and drop the effective loads on a locked target on a given coordinate.

**KMDS** offers an algorithm that informs the user about the effective area of explosion and is capable of being armed with differing ammunition such as, Impact [IMP], Delayed [DLY], Near Surface Burst [NSB] Proximity [PRX] types of mortar shells and these ammunitions can be identified in the system based on their placed slot. The built-in anti-jammer system defends **KMDS** against electronic warfare.

## **KMDS**

UAV UVM-2E-R2  
ASSAULT





## GENERAL SPECIFICATIONS

### Aerial Vehicle Technical Specifications

<i>Number of Rotors</i>	4
<i>Propeller Specifications</i>	32x11
<i>Ammunition Capacity</i>	Attack : 2 x 60mm
<i>Data and Video Link</i>	30 km
<i>Autopilot</i>	YES
<i>Flight Time</i>	2 pcs 60mm / 1 pcs 82 mm
<i>Cruise Speed</i>	35 km/h
<i>Max Speed</i>	60 km/h
<i>Flight Range</i>	More than 15 km
<i>Length (With Propeller)</i>	2012 mm
<i>Length (Without Propeller)</i>	1200 mm
<i>Rotor Diameter</i>	812 mm
<i>Wind Resistance</i>	13 m/s
<i>Battery</i>	4 x 22AH (LiPo Battery)
<i>Charger</i>	YES
<i>Max. Altitude</i>	6000 m MSL
<i>Max Payload</i>	10 kg with 4x 22 AH Battery
<i>MTOW</i>	32 kg
<i>Max. Climb rate</i>	3 m/s
<i>Max. Descent rate</i>	3 m/s
<i>Max wind resistance</i>	13 m/s
<i>Operational range</i>	>15 km
<i>Practical ceiling</i>	1000 m
<i>Endurance</i>	60 min with 2kg payload
<i>Onboard power supply</i>	48 V - 24 V - 12 V - 5 V
<i>Temperature range</i>	-40°, + 60 ° C
<i>Base takeoff and landing area</i>	3m x 3m
<i>Take off and landing</i>	Fully Autonomous
<i>Portable GCS</i>	YES
<i>Dustproof and waterproof</i>	YES
<i>Rugged Case</i>	YES

### Camera Systems

#### *Daytime Camera with Zoom*

10X Optic Zoom 3x Digital Zoom 30x Hybrid Zoom 0X Zoom Day time Camera

#### *Recording*

2K

### Ground Station

#### *Rugged Control Laptop*

YES

#### *Tracker Antenna 360*

YES

#### *Rugged Case*

YES

### GPS

#### *Antijamming System*

Tualaj ANTY

### Mission Control & AUTO Pilot Software Specifications

#### *Automatic Take Off & Landing*

YES

#### *Automatic Return To Base*

YES

#### *Blind Flight Control without GPS*

YES

#### *Fleet Flight Feature*

NO

#### *Video Log & Transmit At Line Of Sight*

YES

#### *Interactive Mission & Flight Planner*

YES

### Camera Option

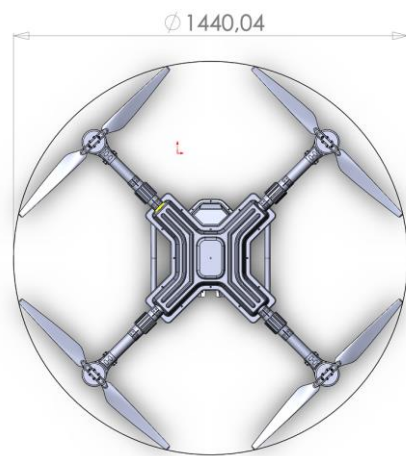
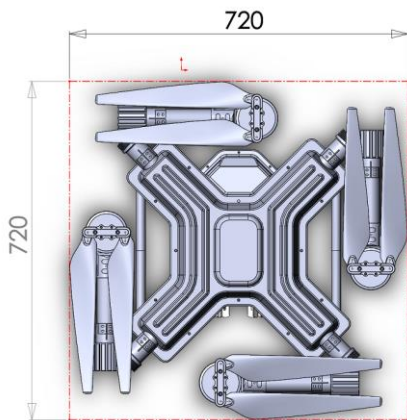
None

### Antijamming GPS Options

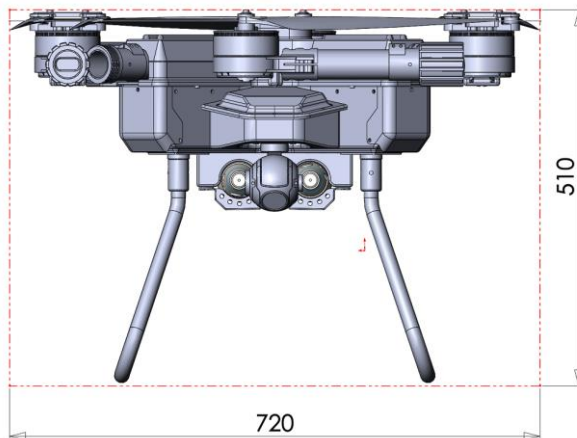
Tualaj 8200 / 4200 / 4100

# KMDS

## UAV UVM-2E-R2 ASSAULT



## DIMENSIONS



# KMDS

UAV UVM-2E-R2  
ASSAULT



## Portable Ground Control Station

**PGCS** is designed to control upto 5 units of KIS unmanned aerial vehicles

The system can be used as a mobile platform as well as a fixed control station. Instant sensor data flow of aircraft, commands for directing camera and weapon systems are also controlled and analyzed on Realtime.

### General Features

- Ruggedized – IP Standards
- 5 Hours Working Time (opt)
- Offline Map Supported
- Touch Screen (opt)
- General UAV Control
- Camera Gimbal Control Supported
- Damage Resistance
- 30 km Video Receive
- 30 km Data Receive
- 30 km Data Transmit
- 30 km Control
- Encrypted

# PGCS

PORTABLE GROUND  
CONTROL SYSTEM



## HIGHLIGHTS

- FULL IN-HOUSE CUSTOMIZABLE DESIGN
- FULL IN-HOUSE SOFTWARE AND FIRMWARE
- EXTENDED OPERATING TIME
- FLEET FLIGHT CONTROL
- NON-GPS AUTONOMOUS FLIGHT AND RETURN HOME
- ANTI-GPS JAMMING / GPS SPOOFING PROTECTION

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## **KIS OTOMAT SİSTEMLERİ AŞ**

### **Headquarters**

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