

UFO nano

ULTRA-COMPACT
ROBOT PLATFORM



Meet the newest member of our Active Safety family of products: the UFO nano, a compact version of our popular Ultra-Flat Overrunable (UFO) robot platform. Don't be fooled by its diminutive size – the UFO nano packs a big punch when it comes to vulnerable road user and collision mitigation testing!

The **UFO nano** was developed to fill the need for a smaller ADAS evaluation tool capable of executing complex, realistic vulnerable road user scenarios. It fits all commonly-used VRU dummies and will also support the next generation of highly-sophisticated human replicas.

This versatile new device features the same familiar design as the standard Humanetics UFO, but its compact size allows it to drive a curve in every radius and even turn on the spot. It can easily accommodate a pedestrian test dummy with a shoulder width footprint barely larger than that of a real person, allowing multiple dummies to 'swarm' together shoulder to shoulder and mimic individualized behavior.

As with the standard UFO, the **UFO nano** is overrunable and has the advantage of high-capacity, swappable batteries. Despite the compact size, its robust construction enables diverse scenarios to be carried out with excellent stability, while the integrated RTK-GPS system ensures spot-on accuracy. The software platform is fully integrated into the Humanetics UFO Base Control environment for complex testing using up to nine robots from the Humanetics family.

Pedestrian fatalities are on the rise, even as there is a race to put fully autonomous vehicles on the roads as quickly as possible. Innovative products such as the **UFO nano** are crucial to successfully testing fully autonomous pedestrian and collision mitigation features, with the goal of making the roads safer for all users.

If you would like to know more about the Humanetics **UFO nano**, please contact your local sales representative or email the team at sales.austria@humaneticsatd.com.

Key Features

- Swappable batteries
- Speeds up to 15kph
- RTK-GPS system for high accuracy
- On-the-spot turning for realistic pedestrian behavior
- Integrated with UFO base control environment for complex testing
- Robust and waterproof
- Cable-free
- Simple and reliable design
- Robust metal construction with ultra-low radar cross-section
- Special stealth outer shell design for optimized radar signature
- Designed to accommodate both current and future ATD generations
- Shoulder-to-shoulder testing to 500mm
- Versatile modular build consisting of robot plus an exchangeable appendix to allow for different footprints
- Seamless integration with Humanetics active safety product family for synchronized testing

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PRELIMINARY TECHNICAL DATA*

ACCURACY	Up to 3 cm
ACCELERATION	2m/s ² incl. Euro NCAP approved adult pedestrian dummy mounted
DECELERATION	2m/s ² incl. Euro NCAP approved adult pedestrian dummy mounted
WATERPROOF	Splash water protected
DIMENSIONS	700x800 mm, diamond design
CHASSIS HEIGHT	20-65mm
MAXIMUM SPEED	15 kph
WEIGHT	25 kg
BATTERY	2x hot swappable batteries
CHASSIS	Split design (drive unit/mounting unit)
MOTOR	2x electric high power density motors
DRIVE SYSTEM	Differential drive with turn on spot
GNSS	Dual antenna RTK
COMMUNICATION	WiFi with hardware acceleration
CONTROL SOFTWARE	UFObase 3.5
REMOTE CONTROL	Master control panel with HD display
CAPABILITIES	Multi-UFO / Swarm testing
MAXIMUM OVERRUN WEIGHT	1000kg (3500kg) per wheel*
RCS	Diamond shape, optimized according ACEA/Euro NCAP requirements
PEDESTRIAN ACEA DUMMY	Mounting according ACEA 25mm ground clearance
BICYCLE DUMMY	Yes
OTHER VRU DUMMIES	With flexible interface on request or customer self-adaptation
ONBOARD COMMUNICATION INTERFACE	Ethernet RJ45 socket

*Preliminary specifications subject to change.

