

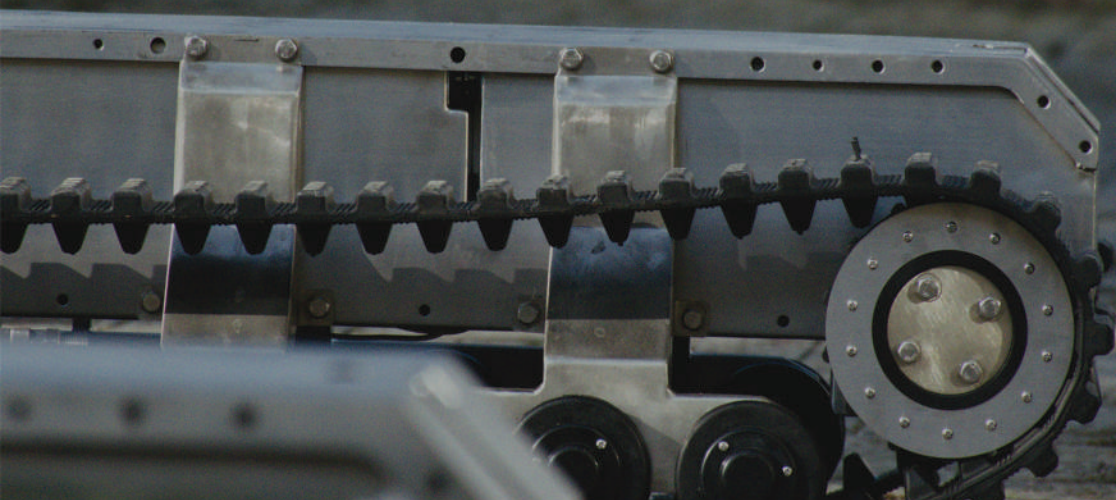


MRAZ  
ROBOTICS

# ROBOTS THAT WORK FOR YOU.



Priemyselna 4, Piestany, Slovakia | +421 911 505 711  
[sales@mrazrobotics.com](mailto:sales@mrazrobotics.com) | [www.mrazrobotics.com](http://www.mrazrobotics.com)



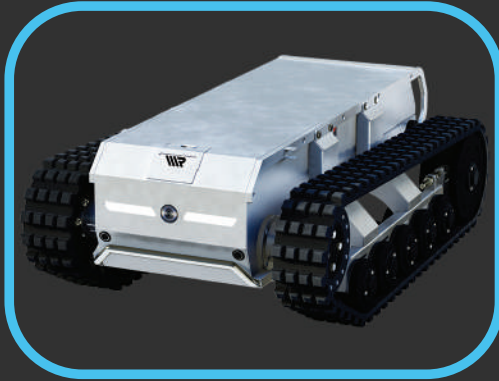
**MRAZ3**

AUTONOMOUS MOBILE ROBOT



# UNLIMITED POSSIBILITIES WITH OUR ADAPTABLE ROBOT

MRAZ3 robot performs difficult industrial tasks even in areas where people are not allowed. The robot is completely sealed and over pressured. It's the first robot in the world capable of autonomous measurements in marked area-based projects or point to point-based projects.



AI  
control



Speed up to  
10 km/h



Robust heavy  
durability



Waterproof



Operates  
24/7



Battery life  
12 hours

## PLANNING TASKS

The MEGOSOFT software is used to plan the individual waypoints and the tasks at these waypoints.

## AUTONOMOUS MODE

Robot uses artificial intelligence to navigate and then process the measured data. Navigation and movement is processed based on video analysis using a neural network.

## MANUAL MODE

The robot can be controlled manually using a 16-channel controller up to 7 km away.

## ONLINE DATA

All notifications are transmitted over any distance and on any platform. Traffic can be monitored online by multiple users, with all data stored in the cloud, making it always accessible.



# **MRAZ3** GEORADAR MEASUREMENTS



# UTILITY LOCATING SURVEY WITHOUT DIGGING OR DRILLING

A fully autonomous mobile robot with integrated ground penetrating radar developed for online locating, 2D GPR profiling and 3D GPR projects for analyzing and mapping underground structures and objects. It's the first robot in the world capable of autonomous measurements in marked area-based projects or point to point projects.



## Parameters

Material	<b>stainless steel</b>
Maximum speed	<b>10km/h</b>
Battery capacity	<b>77Ah at 48V</b>
Battery life	<b>12 hours</b>
Scanning speed	<b>5000 m2/h</b>
Payload	<b>400kg</b>
Replacing battery	<b>10 sec</b>
IP	<b>67</b>
Climbing	<b>up to 40 degrees</b>



**AI  
control**



**Operates  
24/7**



**Scanning  
5000m2/h**

MRAZ3 GPR allows locating underground structures and objects made of all types of materials. Measured GPR data can be further processed, analyzed and attached to geodetic maps.

## NOTHING STAYS HIDDEN THE RESULTS ARE MARKED





# MRAZ3

## GEORADAR MEASUREMENTS



# Use cases

- locating of tunnels, tanks
- road & airport investigation
- investigation of ice & snow
- concrete construction
- dam safety, tunnel inspection
- utility locating
- military & civil investigation
- bedrock mapping
- archeological prospection
- mapping of waste deposit

## MRAZ3

VS

## OTHER SOLUTIONS



OPERATOR  
(BIG AREA)



SPEED



OPERATING TIME PER DAY



DURING DAYLIGHT

**AUTOMATIC**

TRAJECTORY GRID

**MANUAL**

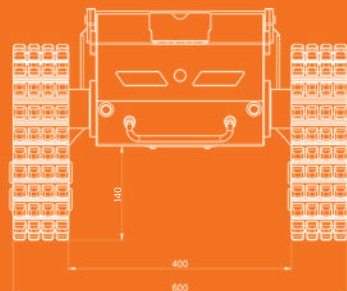
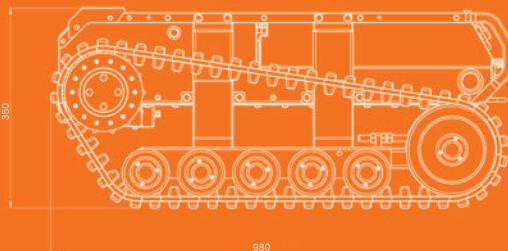
**AUTOMATIC**

DATA UPLOAD

**MANUAL**



# DIMENSIONS OF MRAZ3





**MRAZ3**

FIREFIGHTING INTERVENTION



# CHANGE THE WATER FLOW ANYTIME FROM A SAFE DISTANCE

Firefighting robot assists fire brigade in reducing heat, cooling pressure tanks, preventing the spread of large fire outbreaks, or completely extinguishing fires. The robot significantly reducing the risk of firefighter injuries and equipment damage. Designed for intervention and fighting fires in high risk and dangerous areas.



## Parameters

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Battery life	<b>12 hours</b>
Payload	<b>400 kg</b>
Replacing battery	<b>10 sec</b>
IP	<b>67</b>
Climbing	<b>up to 40 degrees</b>



**Operates  
24/7**



**Robust heavy  
durability**



**Speed up to  
10km/h**

The robot has a streamline that allows the connection of hose type C which enables extinguishing in the maximum range of 1600 liters per minute. The streamer is fully adjustable in two axes and allows setting the type of stream: 1. Contact stream, 2. Diffuse stream, 3. Wall stream

## PROTECTING LIVES EXTINGUISHING FIRES











**MRAZ3**


FIREFIGHTING INTERVENTION



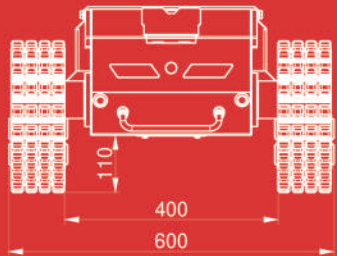
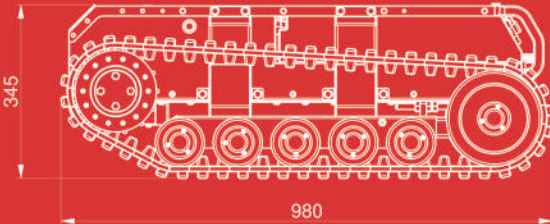
# Use cases

- deployable in all environments
- firefighting in narrow places and tunnels
- cooling containers of explosive materials
- intervention in contaminated, toxic or overheated environment

MRAZ3	VS	OTHER SOLUTIONS
	OPERATOR	
	SPEED	
€	COST	€ € € €
	OPERATING TIME PER DAY	 DURING DAYLIGHT
<b>AUTOMATIC</b>	TRAJECTORY GRID	<b>MANUAL</b>



# DIMENSIONS OF MRAZ3



# MRAZ3

## FOG DISINFECTION



# SAFE PUBLIC SPACES WITH NO EFFORT

A fully autonomous mobile robot with fog disinfection effectively disinfects outdoor areas, benches, tables in parks, terraces, playgrounds, climbing frames and other urban furniture. It contains two separate containers for liquid disinfection in total volume 50 liters



## Parameters

Material	<b>stainless steel</b>
Maximum speed	<b>10km/h</b>
Battery capacity	<b>77Ah at 48V</b>
Battery life	<b>12 hours</b>
Payload	<b>400 kg</b>
Replacing battery	<b>10 sec</b>
IP	<b>67</b>
Climbing	<b>up to 40 degrees</b>



**AI  
control**



**Operates  
24/7**



**Volume  
50 liters**

The robot decontaminates and disinfects interiors, exteriors, also objects and people in them. 6 nozzles ensure 100% coverage of the surface with disinfection in a range of 360 degrees up to a distance of 2 meters from the central axis of the robot.

## ENVIROMENTAL DECONTAMINATION









# MRAZ3


## FOG DISINFECTION



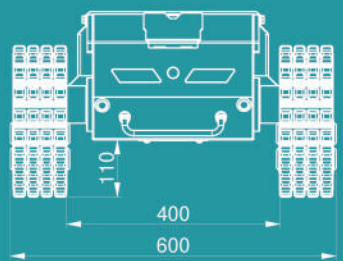
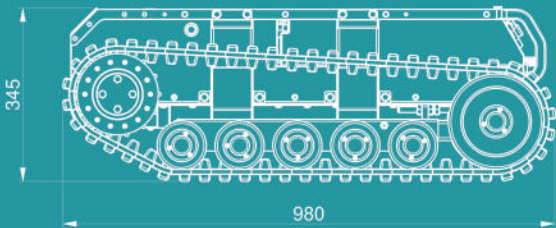
# Use cases

- deployable in all environments
- decontaminates or disinfects in narrow places, tunnels
- decontaminates or disinfects indoor and outdoor areas
- intervention in contaminated or toxic environment

MRAZ3	VS	OTHER SOLUTIONS
	OPERATOR	
	SPEED	
€	COST	€ € € €
24h	OPERATING TIME PER DAY	8h DURING DAYLIGHT
<b>AUTOMATIC</b>	TRAJECTORY GRID	<b>MANUAL</b>



# DIMENSIONS OF MRAZ3





# **MRAZ3**

## SECURITY GUARD



# AUTOMATED INSPECTION SAFETY, QUALITY & EFFICIENCY

The fully autonomous mobile robot increases safety in both civil and industrial facilities. The MRAZ3 DGR provides surveillance of objects, carries out inspections, detects and evaluates potential hazards. The robot also increases the efficiency and quality of routine tasks. Data collection is provided by multiple sensors, a 360-degree camera and an infrared camera. Data evaluation is provided by artificial intelligence.



## Parameters

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Payload	<b>400 kg</b>
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IP	<b>67</b>
Climbing	<b>up to 40 degrees</b>



**AI  
control**



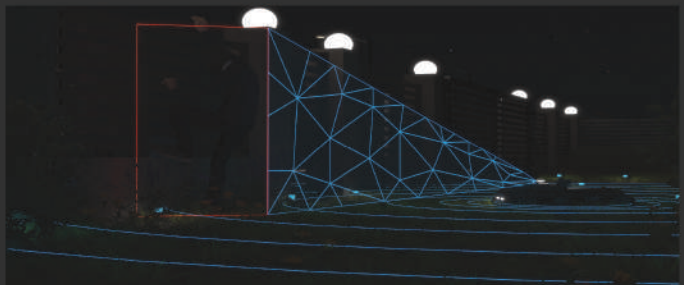
**Operates  
24/7**



**Recognize  
2000 objects**

The robot can reliably detect emerging fire hazards, damage or violation of material integrity, damage to cabling as well as detecting unauthorized entry and much more. When abnormalities are detected, the system automatically notifies the operator and marks them in the log.

## FOR SAFER FUTURE









**MRAZ3**  
SECURITY GUARD

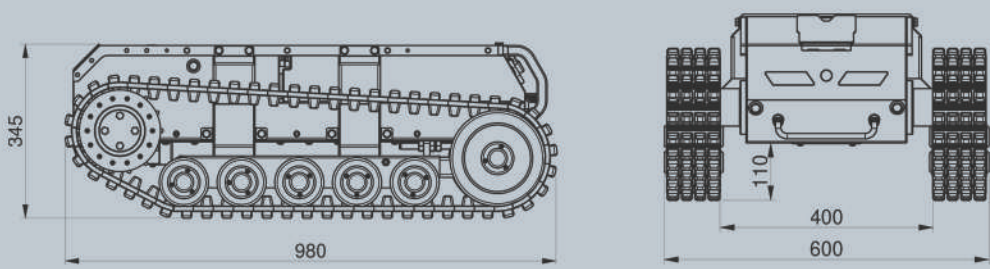
# Use cases

- train and truck chassis investigation
- regular infrastructure investigation
- energy system investigation
- guarding of civilian and military objects
- border control
- military application, forensic military and civil investigation

MRAZ3	VS	OTHER SOLUTIONS
	OPERATOR	
	SPEED	
€	COST	€ € €
24h	OPERATING TIME PER DAY	8h DURING DAYLIGHT
<b>AUTOMATIC</b>	TRAJECTORY GRID	<b>MANUAL</b>
<b>AUTOMATIC</b>	DATA UPLOAD	<b>MANUAL</b>



## DIMENSIONS OF MRAZ3





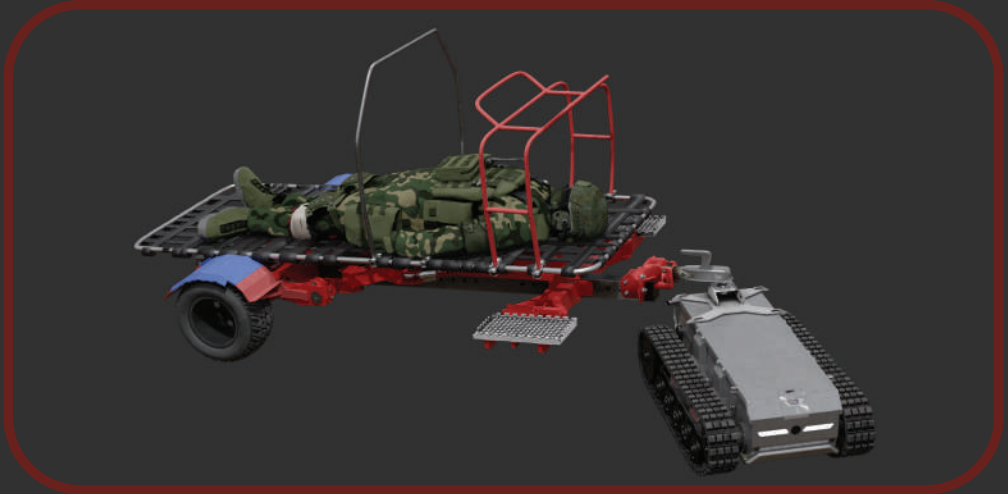


# MRAZ3

## RESCUE EXTRACTION

# SAVING HUMAN LIVES IN CRITICAL SITUATIONS

A mobile robotic system designed to transport severely injured persons in different types of environments. However, it can also help in rescuing people in forest, mountain terrains and places harder to reach. It is also an effective helper in natural disasters.



**Speed up to  
10km/h**



**Robust heavy  
durability**



**Operates  
24/7**

## Parameters

Material	<b>stainless steel</b>
Maximum speed	<b>10km/h</b>
Battery capacity	<b>77Ah at 48V</b>
Battery life	<b>12 hours</b>
Payload	<b>400 kg</b>
Replacing battery	<b>10 sec</b>
IP	<b>67</b>
Climbing	<b>up to 40 degrees</b>

The robot is made of first-class and durable materials, which guarantees high resistance to harsh conditions such as in mountainous areas. This high quality construction allows it to effectively withstand environmental influences and maintain optimal functionality during deployments.













# MRAZ3


## RESCUE EXTRACTION



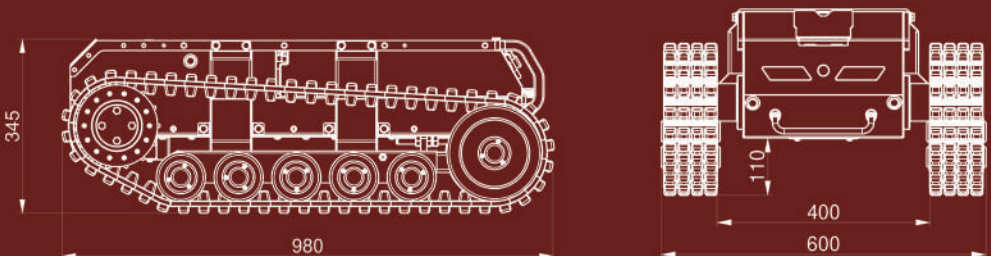
# Use cases

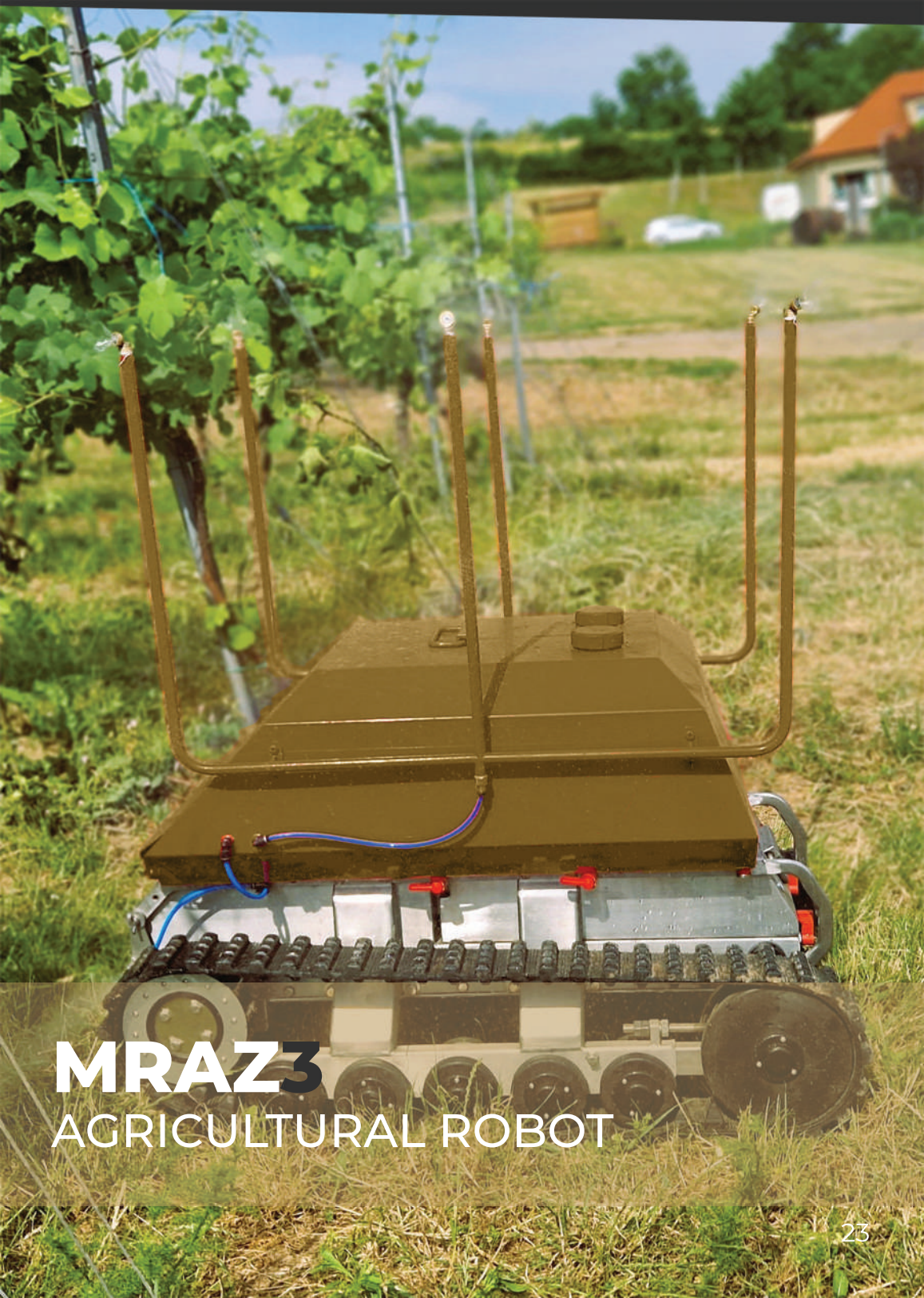
- rescue operations in mountains and difficult terrain
- evacuation of injured people
- rescue people in military cases as well
- extraction of the injured in natural disasters
- transport of persons, materials and rescue equipment

MRAZ3	VS	OTHER SOLUTIONS
	OPERATOR	
	SPEED	
	COST	
	OPERATING TIME PER DAY	
<b>AUTOMATIC</b>	TRAJECTORY GRID	<b>MANUAL</b>



# DIMENSIONS OF MRAZ3





**MRAZ3**  
AGRICULTURAL ROBOT

# EASIER AND MORE EFFICIENT WITH OUR ROBOT

A mobile robot has been meticulously designed with the physical dimensions necessary for seamless maneuverability in orchards and vineyards. Its compact width allows it to navigate through narrow spaces between rows with a width of only 1 meter. This level of flexibility and adaptability empowers farmers and growers to optimize their spraying and fertilization processes.



## Parameters

Material	<b>stainless steel</b>
Maximum speed	<b>10km/h</b>
Battery capacity	<b>77Ah at 48V</b>
Battery life	<b>12 hours</b>
Payload	<b>400 kg</b>
Replacing battery	<b>10 sec</b>
IP	<b>67</b>
Climbing	<b>up to 40 degrees</b>



**Volume  
50 liters**



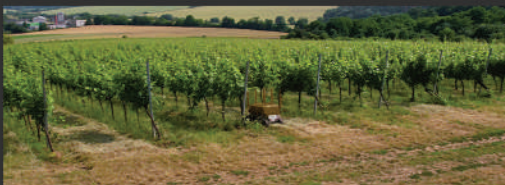
**Operates  
24/7**



**Speed up to  
10km/h**

Our robot is not just a labor-saving device. It is a comprehensive data-driven management system for orchards and vineyards. It significantly contributes to the protection of the health of farmers who are not exposed to the effects of applied substances.

## THE FUTURE OF AGRICULTURE







# **MRAZ3**

## AGRICULTURAL ROBOT

# Use cases

- deployable in all environments
- optimize spraying and fertilization processes
- application of pesticides, fungicides, herbicides, insecticides
- enhances overall efficiency and productivity



**MRAZ3**

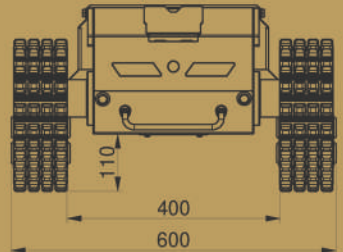
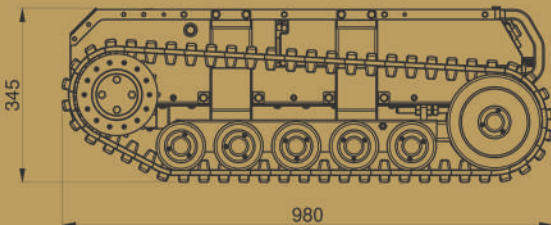
VS

**OTHER SOLUTIONS**

	OPERATOR	
	SPEED	
	COST	
	OPERATING TIME PER DAY	DURING DAYLIGHT
<b>AUTOMATIC</b>	TRAJECTORY GRID	<b>MANUAL</b>
<b>AUTOMATIC</b>	DATA UPLOAD	<b>MANUAL</b>



## DIMENSIONS OF MRAZ3







# ABOUT US





# WE ARE

Motivated technology enthusiasts with a passion for new, innovative and unique devices. We believe in the power of innovation to improve lives and positive changes.

# OUR MISSION

Accomplish dangerous, time consuming and expensive human complex services by trustworthy technology devices. Mraz3 helps in various sectors. The experts for whom the solutions are intended are directly involved in the development, so they are fully debugged and ready for immediate use.

# OUR COMPANY VALUES

- professional approach
- passion for innovation
- commitment to the partners
- customized experiences



We proactively respond to the problems that experts have in carrying out their work and try to help them. Our technologies simplify and speed up the process, increase security and ensure that the results are better, more accurate and clearer.





# COMPANY ACHIEVEMENTS

# AWARDS FOR ROBOTICS AND ELECTRONICS

## 2018

Our electrician Juraj was awarded 3 times in a row as a best young electrician in Slovakia.



## 2019

Seal of excellence for excellent research and development awarded by European Union.



## 2020

Our AI engineer Jakub won open world cup in robotic football.



## 2021

Our company has received price for product innovation from Ministry of Economy of Slovakia.

## 2023

Award-winning exhibit of Golden IDET 2023 - The Honorable Mention for innovation Golden IDET 2023.





