



CHIRONIX 

— ROBOTS FOR HUMANS —



COMPANY CATALOGUE  
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# Mission

*Building the autonomous  
teammates of the future*

Our mission is to build a future where humans and robots  
work seamlessly together as a hybrid team.



# What we do

## *Bridge the gap*

Chironix is a robotics company that provides platform-agnostic robots to help businesses take on robots as part of their workforce. We provide UGVs, service robots, and autonomous ground vehicles that take care of dull, dirty, and dangerous work. Robots that work with humans.

# Why choose Chironix?

At Chironix, we believe that robots can help businesses take on tasks that are dull, dirty, or dangerous. Introducing robots smoothly into the workforce where humans may face limitations is one of the things we do. This means your company can grow while focusing on what matters. With Chironix, every robot is a teammate at your service.

We consider the human employee as a fundamental partner in the development of its robots and we have invested heavily in perfecting methods of communication between humans and robots that are both efficient and easily understood.



# Solutions

The power of robotics put to work. Chironix integrates cutting-edge technology with customised software to give your robot the smarts to help your workforce complete jobs safer and smarter.

With robots as teammates, things which were once difficult and sometimes outright impossible can now be done safer, quicker, and in a more cost-effective way.

*Inspect with accuracy, transport payloads across outdoor sites.*

Chironix enabled robots are designed to execute tasks across novel terrain and work with your people.

**UTILITIES**

**DEFENCE**

**EDUCATION**

**RESOURCES**





## **INSPECTION**

Monitor your facilities with accurate and consistent inspections to ensure higher safety levels and mitigate the risk of faults.

## **SECURITY**

Augment your on-site security team with robotic assets capable of detecting potential threats using a variety of different sensory inputs.

## **LOGISTICS**

The complexity of sustained logistics within current operating environments demand a greater operational viability period, with less burden on deployed personnel.

# Human factors

## *We speak your language*

Our robots are clever and can undertake many tasks without the need for human involvement. However, from a safety perspective where robots share workplaces with humans, it is critical that both humans and robots have clear communication.





Chironix employs a multidisciplinary team of robotics and software engineers, psychologists, user experience designers, and even artists to customise human-robot communication methods for its clients.

Think beyond green and red flashing lights and beeping noises – Chironix considers a far broader range of naturalistic communications that require little or no interpretation for an untrained human. Our robots can receive voice commands, recognise human hand gestures, and behave in ways that implicitly communicate their understanding of commands.

We also employ wearable devices that can share robot vision, and others that vibrate at tempos corresponding to the direction and proximity of a robot to its human teammate. Communication is also enhanced by the simultaneous and reinforcing combination of visual, audible, tactile, and behavioural communication modes.

Enhancing communication between humans and robots allows both to better predict the behaviours of the other and therefore interact more safely and with confidence.



# PILOTOS

*Increase the utility and the safety of your human workers.*

PilotOS enables the co-ordination of a human—machine workforce — The software layer that synchronises the effects between your human and robot workforce.

## BETTER HUMAN-ROBOT TEAM SITUATIONAL AWARENESS

Assist your robot's navigation by monitoring its current location simultaneously by GPS map, live robot camera feed and 2D LiDAR map. Compatible with all ROS-operated platforms.

## GPS WAYPOINT NAVIGATION

Click-and-forgot waypoint navigation setting with the ability to update a robot's path on the fly.





## MANAGE ALL OF YOUR ROBOTS AT ONCE

PilotOS makes it possible to monitor, command, and task multiple unmanned ground vehicles from one place.

## ADAPTIVE MISSION PLANNING

Plan your mission as a human-robot team to consider local mapped terrain with on-board robotic adaptive navigation.

## FOLLOW THE LEADER

Allow your people in the field to take direct control of the robot using simple and intuitive hand signals and follow-the-leader mode.





# Use Cases

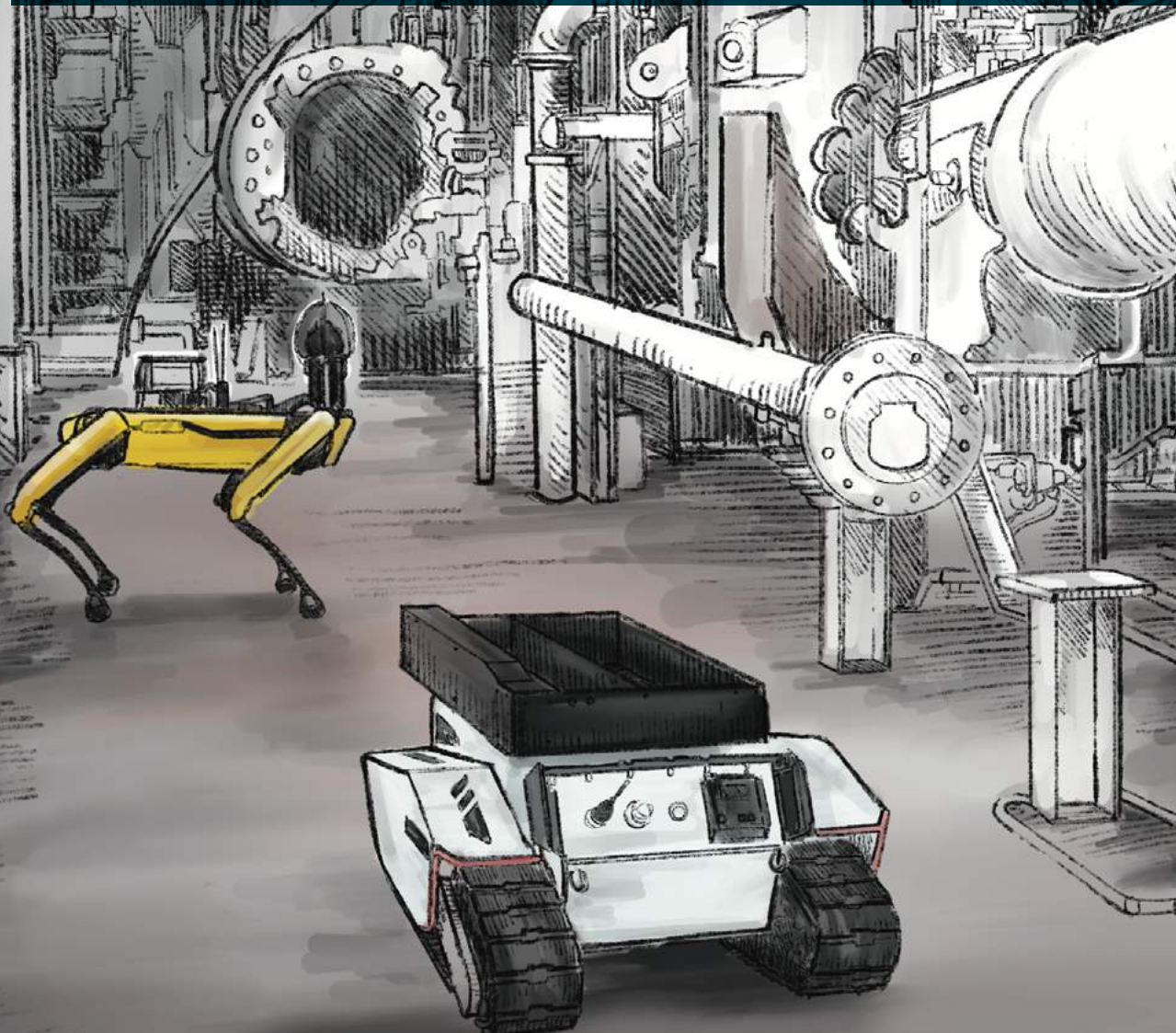
*Where PilotOS software can make a difference.*

## USE CASE 1

### SCENARIO: DISTRIBUTION FOR DEFENCE

During the conduct of warfighting activities, tactical resupply and casualty evacuation actions are needed to sustain the force.

Using the PilotOS platform, a staff member of a battle group headquarters is able to semi-autonomously deploy an Unmanned Ground Vehicle (UGV) to distribute ammunition and explosive ordinance to the forward line of own troops. The PilotOS platform is then used to repurpose the UGV to stretcher a casualty back to the treatment team.







## SCENARIO: LOGISTICS FOR MINING

Moving a heavy payload is a day-to-day task all over a mine site. May it be drill sample bags or boxes of boosters and detonators. When carried out by humans, these tasks can have serious long-term effects to a worker's physical health. Moving that payload to a small robot is one part of the solution.

With PilotOS, these tasks can all be replicated and monitored across multiple robots over an entire mine site. This alone, could keep your human workers more productive and keep their health in better condition.

USE CASE 2

## SCENARIO: INSPECTION

Some machinery runs around the clock on a mine site, and with constant work, comes a lot of heat. Without consistent checks, the excess heat can cause machines to break down, and subsequently, stop production in its tracks. These regular inspections are currently handled by people driving on regular routes across sites and could easily be delegated to robots that can also work around the clock, and send valuable data to the right human behind a computer.

Implementing PilotOS into the scenario would only lead one person in command of multiple robots across acres of land. Relying on robots in the field brings a high level of accuracy and consistency to monitoring and could keep a site running, saving a mine hundreds of thousands in shut-downs.

USE CASE 3

# PLATFORM GUIDE

Here's where you can directly compare all of our defence-robot platforms across all their common measurements.

PLATFORM	TURTLEBOT 4	LIMO	JACKAL	SCOUT MINI
WEIGHT (KG)	3.9	4.2	17	72
RUNTIME (MINUTES)	—	—	150	240
MAX PAYLOAD (KG)	15	—	20	100
MAX SPEED (KM/H)	—	—	7.2	10
IP RATING	—	—	IP62	IP22/IP54
STEERING TYPE	DIFFERENTIAL	CONFIGURABLE	DIFFERENTIAL	ACKERMANN
PACKAGE OPTIONS	2	2	4	4
DELIVERY TIME (WEEKS)	12	6	6	6
PILOTOS COMPATIBLE	—	—	✓	✓

PLATFORM	SPOT	HUSKY	SCOUT 2.0	HUNTER SE
WEIGHT (KG)	33.5	50	62	42
RUNTIME (MINUTES)	60-90	150	150	120
MAX PAYLOAD (KG)	14	75	50	50
MAX SPEED (KM/H)	5.8	3.6	6	17.3
IP RATING	IP54	—	IP22/IP44/IP64	IP22
STEERING TYPE	LEGGED	DIFFERENTIAL	DIFFERENTIAL	ACKERMANN
PACKAGE OPTIONS	3	4	4	4
DELIVERY TIME (WEEKS)	6	12	6	6
PILOTOS COMPATIBLE	—	✓	✓	✓



PLATFORM	HUNTER 2.0	BUNKER MINI	BUNKER	BUNKER PRO
WEIGHT (KG)	72	55	130	180
RUNTIME (MINUTES)	240	80	120	170
MAX PAYLOAD (KG)	100	35	70	120
MAX SPEED (KM/H)	10	5.4	5	5.4
IP RATING	IP22/IP54	IP67	IP52/IP54	IP67
STEERING TYPE	ACKERMANN	DIFFERENTIAL TRACK	DIFFERENTIAL TRACK	DIFFERENTIAL TRACK
PACKAGE OPTIONS	4	4	4	4
DELIVERY TIME (WEEKS)	6	6	6	6
PILOTOS COMPATIBLE	✓	✓	✓	✓

PLATFORM	RANGER MINI	WARTHOG	HAWC	RAPTOR
WEIGHT (KG)	55	590	—	—
RUNTIME (MINUTES)	300	90	14.6 HRS	14.6 HRS
MAX PAYLOAD (KG)	50	272	750	1000
MAX SPEED (KM/H)	6	18	34.9	34.9
IP RATING	IP22	IP56	—	—
STEERING TYPE	OMNIDIRECTIONAL	DIFFERENTIAL	DIFFERENTIAL 6WD	DIFFERENTIAL 6WD
PACKAGE OPTIONS	4	2	—	—
DELIVERY TIME (WEEKS)	6	6-26	26	26
PILOTOS COMPATIBLE	✓	✓	—	—

# Robot Platforms

## DELIVERY STATEMENT

All platforms can be delivered as base units with remote control capability. For further integration of sensors and software capability, an extended delivery time should be considered.

- Full remote capability of platforms +3 months
- Follow-The-Leader +3 months
- PilotOS +6 months



# BOSTON DYNAMICS

Boston Dynamics builds advanced mobile manipulation robots with remarkable mobility, dexterity perception and agility.

DELIVERY - 6 WEEKS

## SPOT

- Advanced, walking technology
- Developer Platform
- Versatile Applications

Max Speed	1.6 m/s
Weight (kg)	32
Maximum Payload (kg)	14
Operational Time (minutes)	60-90

## PACKAGES

### STARTER PACK

Spot for Enterprise

### SELF-CHARGING PACK

Spot for Enterprise  
Battery Charger  
Docking Station

### MANIPULATOR PACK

Spot for Enterprise  
Spot Arm

### BLK ARC PACKAGE

Spot for Enterprise  
Leica BLK ARC  
Laser Scanner



# CLEARPATH ROBOTICS



Over five-hundred of the world's most recognizable brands, including GE and Toyota, are currently utilising Clearpath platforms in over forty countries.

DELIVERY - 6 WEEKS - 6 MONTHS



## WARTHOG

- Rugged & versatile
- ROS ready
- Fully extensible
- High performance
- Expandable power

Dimensions (mm)	1520 x 1380 x 830
Weight (kg)	280
Maximum Payload (kg)	272
Operational Time (minutes)	140 (Li-ion)

### PACKAGES

#### STARTER PACK

Base Platform

#### TRACKED PACKAGE

Terrain Tracks



## HUSKY

- Easy to use
- Rugged & all-terrain
- A trusted benchmark
- Precision control
- Customizable

Dimensions (mm)	990 x 670 x 390
Weight (kg)	50
Maximum Payload (kg)	75
Operational Time (minutes)	150



DELIVERY - 12 WEEKS

### PACKAGES

#### STARTER PACK

Base Platform  
Top Plate  
Extra Battery  
On-board Computer  
IMU/AHRS

#### EXPLORER PACKAGE

Starter Package +  
SICK Lidar  
Garmin GPS/GNSS  
Indoor Wireless  
Access Point

#### MAPPING PACKAGE

Base Platform  
Upgraded Lithium  
Battery  
Top Plate  
On-board Computer  
Velodyne Lidar  
SwiftNav GPS/GNSS

#### MANIPULATOR PACK

Starter Package +  
UR-5e Cobot Arm  
Robotiq Gripper



# JACKAL

- Turn-key, ready for action
- All-terrain & weatherproof
- Powerful & Compact
- Customisable

Dimensions (mm)	508 x 430 x 250
Weight (kg)	17
Maximum Payload (kg)	20
Operational Time (minutes)	160

DELIVERY - 12 WEEKS



## PACKAGES

### BASE UNIT

Base Platform

### JETSON DEV PACKAGE

Base Platform  
On-board Computer  
Replacement Basic  
Computer

### EXPLORER PACKAGE

Jetson Dev Package+  
SICK Lidar  
SwiftNav GPS/GNSS  
FLIR Camera  
IMU/AHRS

### NAVIGATION PACKAGE

Jetson Dev Package+  
SwiftNav GPS/GNSS  
SwiftNav Base Station



## TURTLEBOT 4

- Get started quickly
- Sensor packed
- Build & expand
- ROS-ready

Dimensions (mm)	340 x 340 x 350
Weight (kg)	3.9
Maximum Payload (kg)	9
Operational Time (minutes)	240



### PACKAGES

#### TURTLEBOT LITE

Base Platform

#### STANDARD PACK

RPLIDAR-A1 Lidar  
OAK-D-PRO Camera  
2 User LEDs  
128X64 OLED Display

# AGILEX



AgileX Robotics is a robot chassis manufacturer and mobile robot system solution provider. Choose from a range of unmanned ground vehicles and modified wire-controlled electric robots.

DELIVERY - 6 WEEKS



## LIMO

- Multiple moving modes
- Open-source software for more possibilities

Dimensions (mm)	320 x 220 x 250
Weight (kg)	4.2
Steering Mode	Configurable
Operational Time (minutes)	60

### PACKAGES

#### STARTER PACK

Base Platform

#### PACKAGE 2

Base Platform  
Simulation table

#### PACKAGE 3

Base Platform  
Simulation table  
Spare Battery



## TRACER

- Indoor logistics solution
- Two-wheeled differential
- Flat design
- Multiple-load expansion, rapid secondary development



Dimensions (mm)	690 x 570 x 160
Weight (kg)	30
Maximum Payload (kg)	100
Operational Time (minutes)	200

DELIVERY - 6 WEEKS



## SCOUT MINI

- Light and agile for driving anywhere you want
- Multiple-load expansion, rapid secondary development

Dimensions (mm)	627 x 550 x 252
Weight (kg)	20
Maximum Payload (kg)	20
Operational Time (minutes)	60

## PACKAGES

### STARTER PACK

Base Platform

### R&D PACKAGE

Base Platform  
Lidar  
Depth Camera  
On-board Computer

### R&D PRO PACKAGE

Base Platform  
Lidar  
Depth Camera  
On-board Computer  
Display Module



## SCOUT 2.0

- Structural advantages
- External expansion and secondary development supported



Dimensions (mm)	930 x 699 x 348
Weight (kg)	62
Maximum Payload (kg)	50
Operational Time (minutes)	150

### PACKAGES

STARTER PACK	AUTOKIT PACKAGE	R&D PACKAGE	R&D PRO PACKAGE
Base Platform	Base Platform Lidar Depth Camera On-board Computer	Base Platform Lidar Depth Camera On-board Computer	Base Platform Lidar Depth Camera On-board Computer Display Module

AGILEX PACKAGES

The rest of the AgileX range is compatible with these packages.

STARTER PACK	AUTOKIT PACKAGE	R&D PACKAGE	R&D PRO PACKAGE
Base Platform	Base Platform	Base Platform	Base Platform
	Lidar	Lidar	Lidar
	Depth Camera	Depth Camera	Depth Camera
	On-board Computer	On-board Computer	On-board Computer
			Display Module

DELIVERY - 6 WEEKS



HUNTER SE

- Upgraded power system for high-speed driving
- Modular shock absorption systems

Dimensions (mm)	820 x 640 x 310
Weight (kg)	42
Maximum Payload (kg)	50
Operational Time (minutes)	120





## HUNTER 2.0

- Customized chassis solution
- Brand-new power system
- Safe and reliable power-off parking
- Multiple-load expansion, rapid secondary development

Dimensions (mm)	980 x 745 x 380
Weight (kg)	72
Maximum Payload (kg)	100
Operational Time (minutes)	240



## RANGER MINI

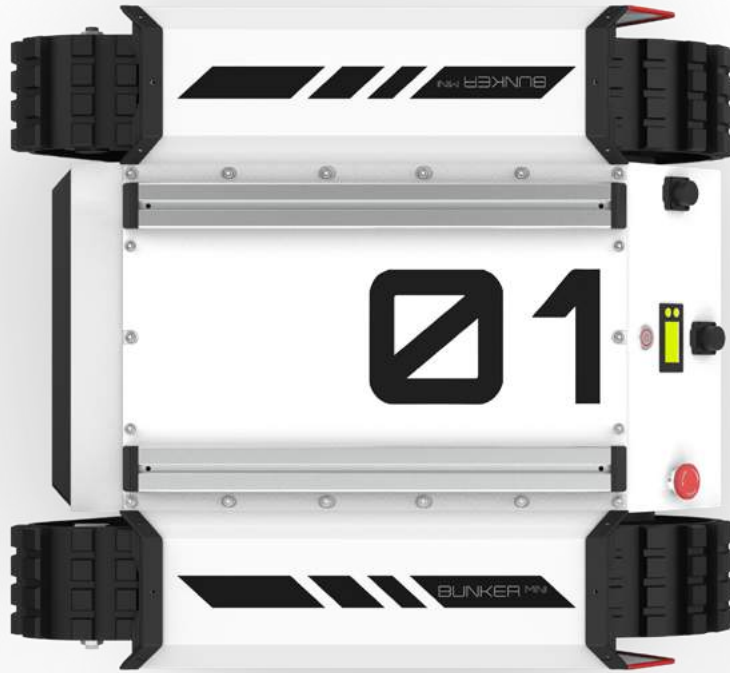
- Four Wheel Independent Steering
- Multiple Moving Modes
- Secondary Development Supported
- Quick Release Battery

DELIVERY - 6 WEEKS



Dimensions (mm)	558 x 492 x 420
Weight (kg)	55
Maximum Payload (kg)	50
Operational Time (minutes)	300





## BUNKER MINI

- Industrial leading IP67 protection against water
- Small size with heavy loading capacity



Dimensions (mm)	660 x 850 x 470
Weight (kg)	55
Maximum Payload (kg)	35
Operational Time (minutes)	80



## BUNKER

- Tough process design, special operation platform
- Multiple-load expansion, rapid secondary development



Dimensions (mm)	1023 x 780 x 394
Weight (kg)	130
Maximum Payload (kg)	70
Operational Time (minutes)	120



#### STARTER PACK

Base Platform

#### MANIPULATOR PACK

Base Platform

Lidar

Intel Realsense Camera

6 DOF Arm

## BUNKER PRO

- Tough process design, special operation platform
- Multiple-load expansion, rapid secondary development



Dimensions (mm)	106 x 850 x 470
Weight (kg)	180
Maximum Payload (kg)	120
Operational Time (minutes)	170

# CANADENSYS

Canadensys specializes in advanced vehicles, with an emphasis on high-performance mobility in extreme environments, from Earth to space and across civil and security / defence applications, worldwide.

DELIVERY - 6 MONTHS

## HAWC

- Rugged & versatile
- Pull what you can't carry

Dimensions (cm)	390 x 165 x 200
Weight (kg)	1600-1800
Maximum Payload (kg)	750
Operational Time	14.6 hrs





**RAPTOR**

- Rugged & versatile
- Upgrade for extra power and range

Dimensions (cm)	366 x 165 x 200
Weight (kg)	1700
Maximum Payload (kg)	1000
Operational Time	14.6 hrs



DELIVERY - 6 MONTHS



Visit [Chironix.com](http://Chironix.com)  
for more information

