TR10Pro

TR10

*Marking Robot*

# TR10 series

## Intelligent Marking Robot

# TR10 series Line Marking Robot

The TR10 series Line Marking Robot is an auxiliary work robot capable of automatically measuring, marking, and drawing lines. It is equipped with an adjustable-width nozzle, making it suitable for various application scenarios such as sports fields, highways, municipal roads, airport runways, and more. The software comes with a variety of built-in templates, including sports field designs, icons, arrows, and numbers, while also supporting user-defined editing or template importing. This significantly improves the efficiency of road marking, pre-marking, and spray printing, while reducing labor pressure and costs.

# CHARACTERISTIC

## Linux Intelligent System

The TR10 series supports full constellation and full-band frequency signal tracking with 1408 channels. Its antenna can simultaneously receive signals from BDS, GPS, GLONASS, GALILEO, SBAS, and QZSS satellites, enabling full constellation positioning. The robot also supports Real-Time Kinematic (RTK) differential positioning and can access the Beidou ground-based augmentation system for high-precision positioning. By combining high-precision positioning with robotic operations, it achieves reliable and repeatable centimeter-level line marking accuracy.

## Long Battery Life and High Speed

The TR10 is equipped with a built-in 48V/15Ah lithium battery, providing a range of 15km and a top speed of 1m/s. Additionally, it supports customization for different battery capacities, offering a maximum range of up to 30km.

## Multi-functional

The TR10 series can accommodate different sizes of spraying devices and can achieve different types of markings, such as dots, lines, curves, numbers, letters, and patterns. It has built-in models of various sports fields, such as soccer and tennis courts. It supports custom editing of sports field models and is easy to use.

## High Adaptability

The TR10 series is compact and equipped with two 400W hub motors, enabling it to perform operations smoothly on rough surfaces like grass and gravel roads, with the ability to make sharp turns and climb slopes up to 20 degrees.

## Supports Multiple File Formats

The app supports various file formats, including dxf, csv etc., enabling the robot to follow designed construction plans for seamless implementation.

# TR10series Marking Robot
## Intelligent Marking Robot

Reliable and repeatable

**Centimeter-level** marking accuracy

**TR10Pro**

**5cm~15cm**

Adjustable side nozzle

**3** times faster than manual work

Operating day and night

Lithium **48V/15Ah**

Over 8 Hours

Speed **1m/s**

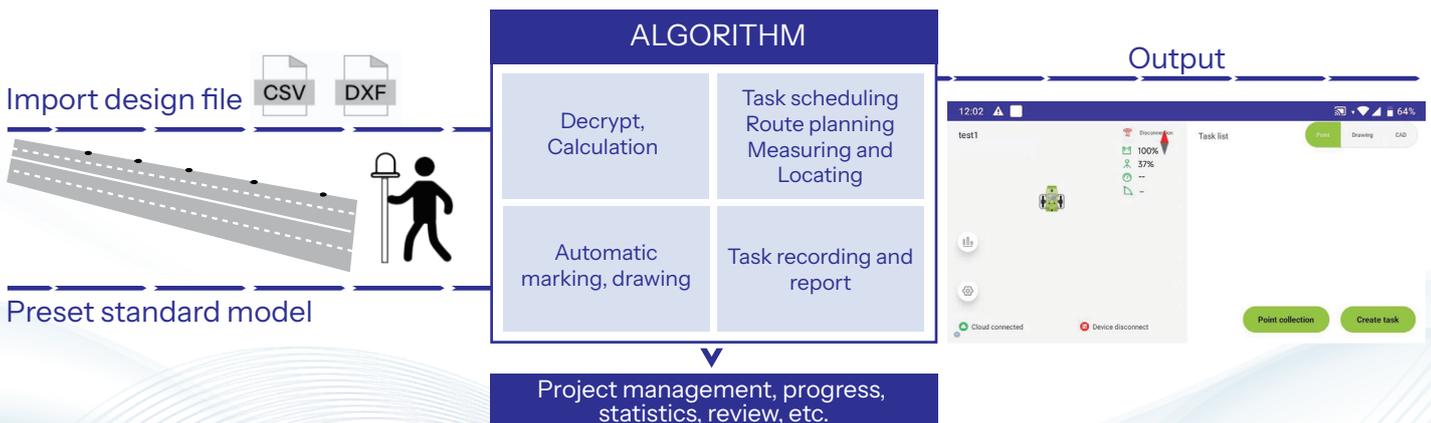Faster and more efficient

**TR10**
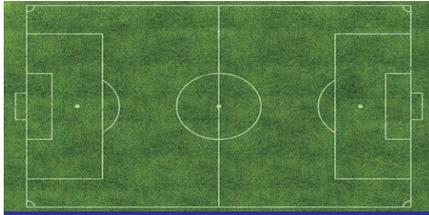
**0° Turn in place**

Flexible and adaptable

## System Architechure

Import design file

CSV  DXF

Preset standard model

| ALGORITHM | |
|---|---|
| Decrypt, Calculation | Task scheduling Route planning Measuring and Locating |
| Automatic marking, drawing | Task recording and report |

Output

Project management, progress, statistics, review, etc.

# APPLICATION


Sport fields


Measurement guidance


Highway

# SPECIFICATION

| PHYSICAL | |
| --- | --- |
| Dimensions L*W*H | TR10Pro: 525*746*527mm (Removable side scribing mechanism with a width of 243mm) TR10: 558*610*527mm |
| Wheelbase | 400mm |
| Wheel Track | 465mm |
| Weight | TR10: 36kg    TR10Pro: 39.3kg |

| BATTERY | |
| --- | --- |
| Battery Type | TR10: Lithium 48V/15Ah TR10Pro: Lithium 48V/7.5Ah |
| Battery Life | 8 hours |
| Endurance | 30km |

| ENVIRONMENT | |
| --- | --- |
| Communication | CAN |
| Temperature | Operating: -10℃~60℃ Storage: -10℃~45℃ |
| IP Rating | IP3X |

| MOBILITY | |
| --- | --- |
| Motor Specification | 400W*2 |
| Maximum Speed | 1m/s |
| Maximum Climbing Ability | 20° |
| Minimum Turning Radius | 0°(Turn in place) |

| PRE-MARKING | |
| --- | --- |
| Speed | 2.6 km/h |
| Material | Latex paint/Titanium white slurry |
| Accuracy | ≤1.5cm |
| Hopper Capacity | 10L |
| Line Types | Dots, lines, curves, numbers, letters, patterns |

| FIELD MARKING | |
| --- | --- |
| Speed | 1m/s |
| Hopper Capacity | 10L |
| Sports Field Type | Running track, tennis court, soccer field, football field, lacrosse court, baseball field |
| Drawing Width | 5cm~15cm adjustable side nozzle |

| CONTROLLER | |
| --- | --- |
| Controller | Android tablet |
| Controller Software | Built-in models for various types of sports fields; It supports custom editing of sports fields; User-friendly and easy to operate. |

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Manufacturers may update parameters at any time, please refer to the latest product information.