



# ROBOTIC MOBILE PLATFORM

## Automated Corbel Drilling and Anchor Installation

The **Robotic Mobile Platform** is an automated solution that can operate independently or be installed on the **TBM back-up**. It is designed to perform **high-precision drilling, bush-hammering, and anchor installation** on tunnel segments.

Compared to manual operations, it significantly improves **quality, safety, and repeatability**, while integrating seamlessly into existing TBM workflows.



### Key benefits

- ± Automated, high-precision drilling operations
- ± Improved safety for tunnel crews
- ± Consistent quality with reduced rework
- ± Intelligent adaptation to actual tunnel geometry
- ± Proven performance on the T2 Hong Kong TBM project

INNOVATIVE SOLUTIONS FOR TUNNEL CONSTRUCTION



### Main Applications

- › Automated **corbel drilling** for ceiling or floor supports
- › **Anchor installation** for future equipment mounting
- › Bush-hammering and boring directly on tunnel segments

### Easy TBM Integration

- › Robot arms mounted on the **back-up platform**
- › Suitable for confined underground environments



## How It Works in tunnels - T2 Hong Kong Reference

The system accurately locates each segment to be processed, taking into account:

- > Ring rolling
- > Gantry rolling
- > Tunnel uplift

Advanced algorithms compare the actual drilling position with the **3D rebar model**. If a collision risk is detected, the drilling position is automatically adjusted – providing an **“X-ray vision” effect** through the concrete segments.

## Robot vs Manual Operations

ASPECT	WITHOUT ROBOTIC PLATFORM	WITH ROBOTIC PLATFORM
<b>Drilling accuracy</b>	Operator-dependent	High and repeatable
<b>Safety</b>	High human exposure	Reduced exposure
<b>Quality consistency</b>	Variable	Controlled
<b>Productivity</b>	Limited	Optimized

Roby 2 is one of the most advanced mobile platforms currently deployable across our operational sites.



Adresse  
Contact

[www.tunnelbytp.com](http://www.tunnelbytp.com)