

Shotcrete Thickness Measurement

Digital control of sprayed concrete thickness

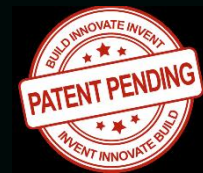




Mobbot's shotcrete thickness measurement device is designed to enable onsite workers in tunnel to control the thickness of the concrete sprayed, providing a real-time understanding of the over and underspraying.

Different publications and contractors estimate an over sprayed thickness ranging from 5cm to 15 cm depending on the nozzlemen experience. A 5cm overspray on a 10m diameter tunnel, represents ~ 1500 m³ of concrete overuse.

Mobbot's thickness measurement is a robust tool, efficient in a dusty environment which enables to measure in a continuous way and real-time the amount of concrete thickness that has been sprayed and display in a dynamic and real-time mode the shotcrete thickness.



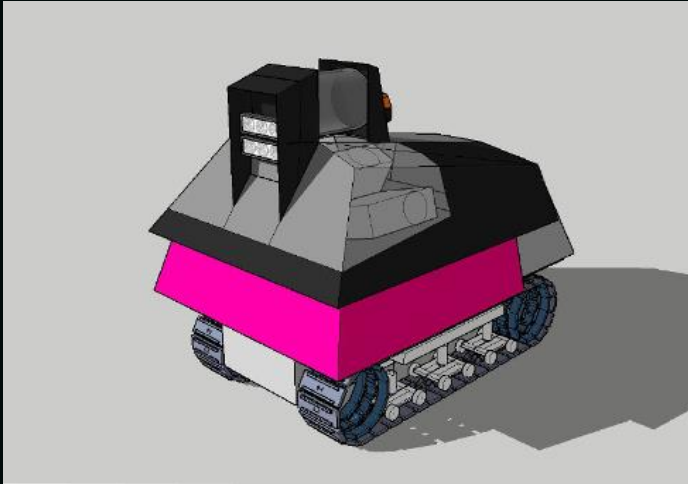
Challenges

- Empiric and approximative shotcrete thickness control
- Overspraying to prevent returning on site for corrections
- Corrective and time consuming actions to remove oversprayed shotcrete
- Complex surveying methods required for concrete thickness control

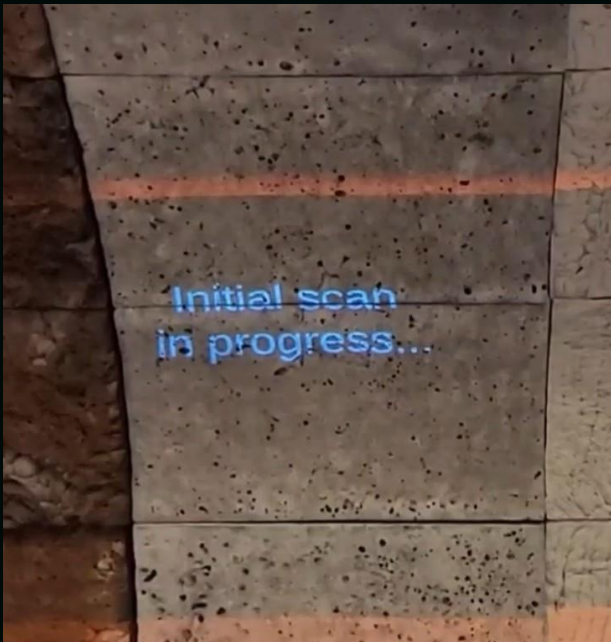
Benefits

- Live and dynamic control of shotcrete thickness
- Immersive and simple method for nozzle men
- Reduced material consumption

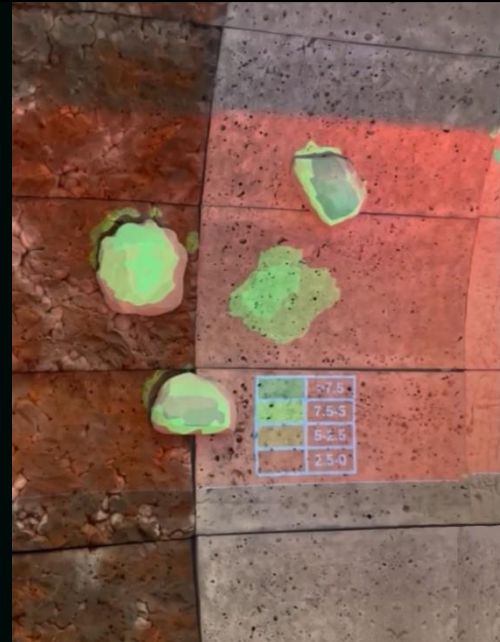
Mobbot Solutions



Initial scan before starting operations



Continuous & real-time display of concrete thickness



TECHNICAL FEATURES

- Hi-precision LiDAR scanner
- Wide-angle beamers for coverage of larger wall surface
- 180° scanning and display radius
- Refreshing rate of seconds
- Precision of 2 cm
- Self-propelled on caterpillars
- Strong , waterproof housing
- Results can be accessed remotely through dashboard
- One-click button method to measure shotcrete thickness
- Easy to use – one button for reference state scanning (before spraying) and one button for thickness measurement (during or after spraying)
- Colour map representing sprayed thickness demonstrated directly on the wall
- Possibility of connection with dashboard for visualisation of progress
- Remote controlled self-propelled
- Self-cleaning system



To learn more about our solutions and how you can optimize your shotcrete performance, write to us at the email address below.

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