



CDOT AI Code

Where 2D Codes Cannot Go, Tracking Trillions of Industrial Parts

About CDOT AI Code

CDOT AI Code is a 2D unique identification code designed for full traceability under extreme manufacturing conditions. Powered by AI-driven, frequency-based signal detection, CDOT can be read on parts and products even after exposure to heat treatment, e-coating, painting, shot blasting, acid treatments, and galvanization.

Key benefits for clients: end-to-end part-process visibility, early error detection, lower scrap rates, and maximized quality precision.

Core Technology Patent



UNITED STATES
PATENT AND
TRADEMARK
OFFICE

PATENT US 12,242,922

CDOT AI Code Features

- Size vs. Capacity
- Shape
- **Occlusion Resilience**
- **Hot Surface Durability**
- Stretch Tolerance
- **Coating/Painting Durability**
- **Heat Treatment Resistance**
- Sandblasting Resistance
- Small-Space Compatibility

Stores 192 bits / 32 alphanumeric characters in a 5mm² code
Flexible: can be square, rectangular, logo-shaped, or freeform

Decodable at 90% blockage

Withstands surface temperatures up to 700°C / 1292°F

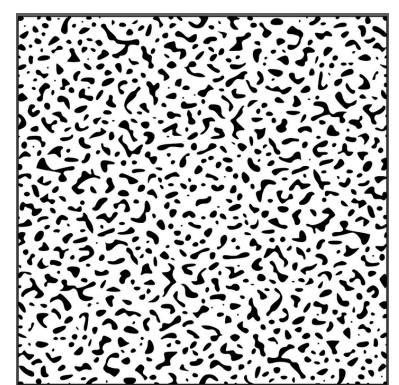
Withstands stretching up to 3 times its original size

Withstands coating or painting up to 700µm

Withstands heating and furnacing up to 700°C / 1292°F

Between 50µm and 100µm (depending on laser marker wattage)

Yes



CDOT

Durability Features

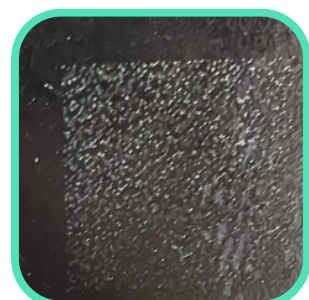
• **Reads through paint**

- Tested up to 700µm, ideal for reading body panels



• **Reads through coating & plating**

- Tested up to 700µm, suitable for reading parts after metallization, cataphoresis, and galvanization



• **Decodable at 90% blockage**

- Ideal for reading crankshafts and connecting rods



• **Works on hot surface**

- Tested up to 700°C / 1292°F, applicable for engine blocks, iron & steel billets, blooms, and ingots



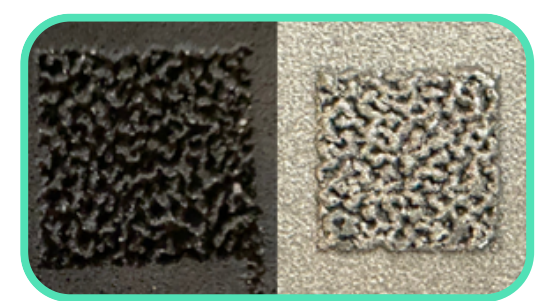
• **Reads after heat treatment**

- Applicable for gears, axles, valves, camshafts, transmission, suspension & chassis components, springs, frames, and plates



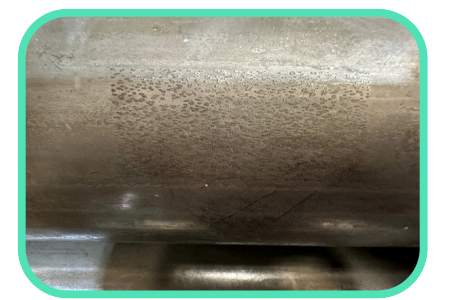
• **Transferable from sand mold**

- Ideal for reading brake discs and drums



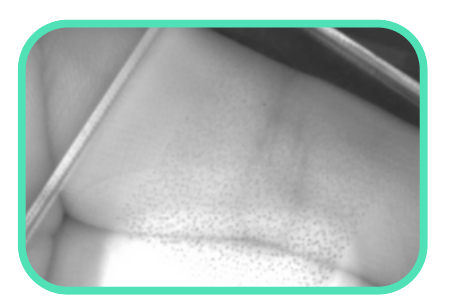
• **3x stretch tolerance**

- Ensures readability through drawing operations in pipes



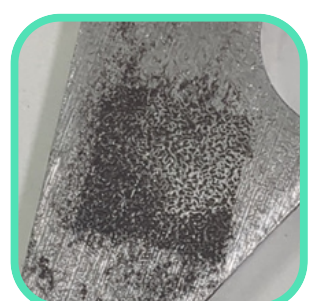
• **Reads on no-contrast surfaces**

- Applicable for reading on glass, plastic, and polypropylene (PP) surfaces



• **Reads after liquid, dust, acid and rust**

- Allows direct part reading without relying on paper labels



• **Durability on small surfaces**

- Optimized for reading on connecting rods and gear shafts



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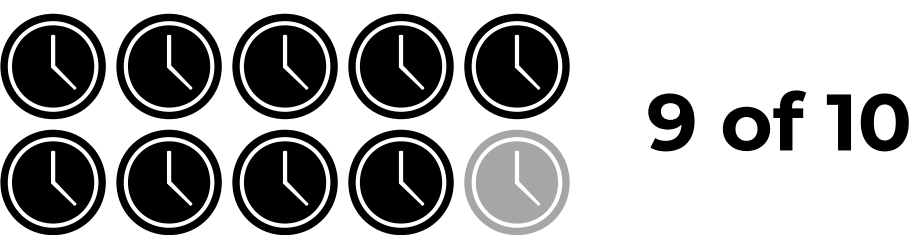
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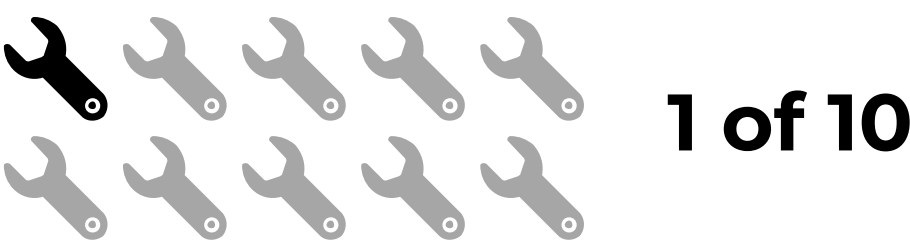
Quick Setup and Minimal Maintenance

Installation Speed



Integrates into existing systems without requiring workflow changes.

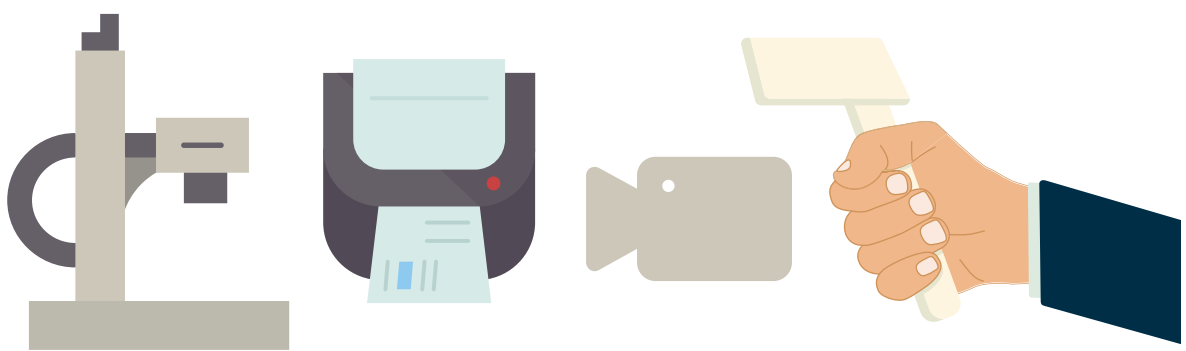
Maintenance



Its resilient design requires minimal maintenance, even in abrasive environments.

Universal Compatibility

All markers and readers



Seamlessly integrates with existing laser markers and industrial cameras—no new equipment required.

Trusted By Biggest Enterprises



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