

GRIDBOTS SPYDER

PIPE CLIMBER ROBOT



ABOUT GRIDBOTS

We are a Technology company from India and work in the field of Robotics - Artificial Intelligence and Machine Vision. Founded in August 2007 by young and passionate innovator Mr. Pulkit Gaur [TED Fellow and MIT Young Innovator of the year]. We today are a team of more than 50 people- Head quartered in Ahmedabad and having offices in Pune and Delhi.

We design and develop ultra high performance systems which are used in the industry for defect detection - dimension measurement - sorting applications - grading application and many other ways. With our machine vision and robotic solutions we are helping our clients achieve digital factory goals in a time bound manner.

We would be glad to hear about your industry 4.0 adaptation strategy and would love to get in touch with you to explore the synergies in working together !

NO.1

In Inspection Robots

95+

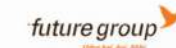
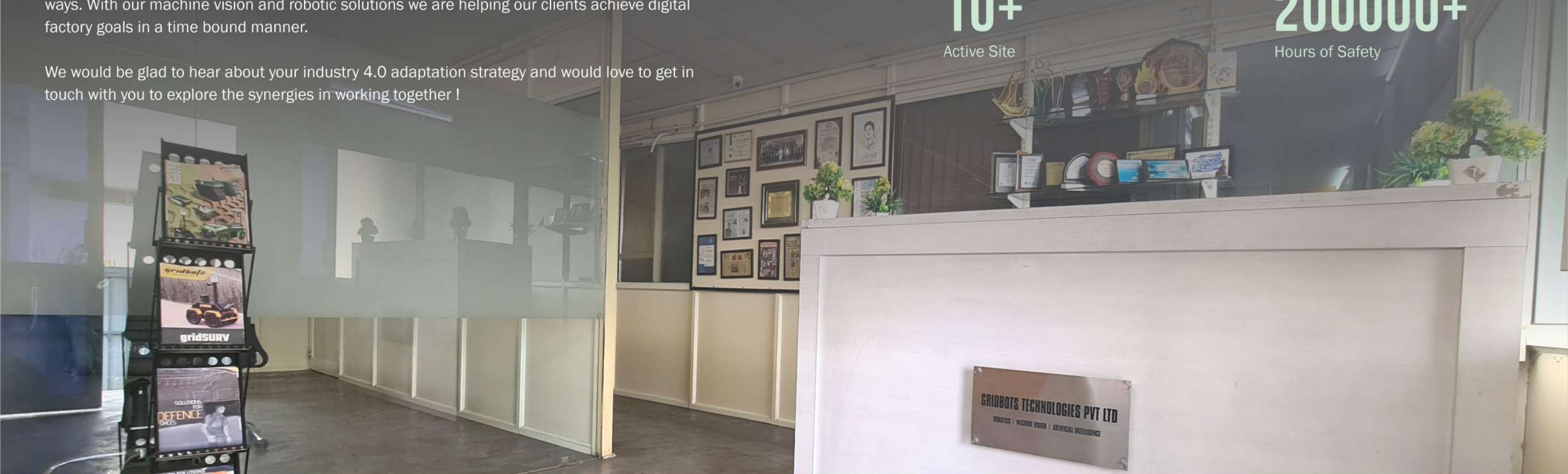
Projects Completed

10+

Active Site

200000+

Hours of Safety



GRIDBOTS SPYDER

PIPE CLIMBER ROBOT

MODEL SERIES:GB-SPYDER



ABOUT

Gridbots Spyder series of robots are designed to be used in vertical and inclined pipe inspection and operations jobs.

It has the capabilities to climb almost all kind of magnetic pipe surface with a payload upto 5 kgs in most extreme temperature and surface conditions. The robot can be used for surface inspection, weld inspection, blasting, painting, coating, grinding, lapping or many other operations where it is difficult for a human worker to reach. The robot is ultra light construction from aircraft grade aluminum and high strength magnets to adhere to the surface with active distance compensation force multipliers underneath the body.

The robot is internally powered by strong PMSM geared motors, pedometer and 6 DOF IMU sensor to track the motion in all 6 DOF. It also features distance offset sensor beneath its surface to keep a constant distance maintained from the surface.

The robot has an array of 10 EMAT/USONIC sensors to measure the tube thickness and report it in real-time to the base computer-where a depth profile of pipes can be composed for later analysis



UTMOST SAFETY



FAST SCAN MODE



INBUILT
DATA ANALYTICS



AI ENABLED
DATA MINER

TECHNICAL SPECIFICATIONS

Wheels
Four Powered Wheels/2 Powered Tracks

Payload
Upto 5 Kg

Magnets Used
Array of NDFeB Magnets

Crawling Speed
Maximum of 10 MM/Sec

Encoder Motion Resolution
0.1 MM Increments

IMU
100Hz - 6 DOF

Provided Cable Length
100/200 Meters

Robot Weight
10-20 Kgs[Various Model Variants]

Power
250V-15A [1 KW - Peak]

Cameras
2 [1- Front Down Facing,1 - Rear Down Facing]

Remote Control
Tether Cabled [Kevlar Wire Rope]

Build Material
Aircraft Grade Aluminium and Ss316

FEATURES

Realtime Inertial Tracking (6DOF)

Can tackle Straight and Inclined Pipes

Can navigate on convex and concave surfaces

Maximum inspection speed Upto 10 mm/second

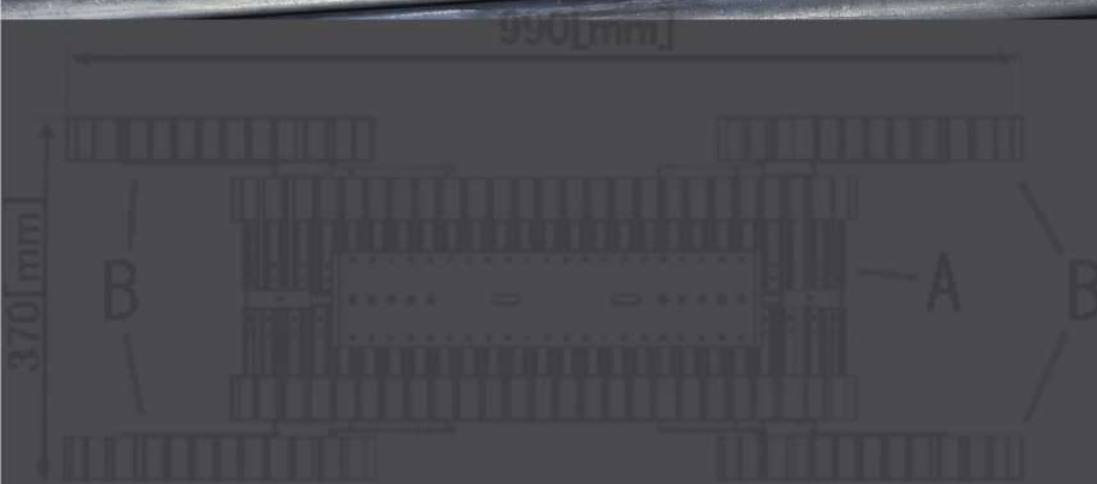
Adhesion Force 10 kg

All wheels are power driven

2 FHD Camera for surface quality inspection

EMAT/Ultrasonic Probes/Magnetic Flux Sensor Array - As per user choice





GRIDBOTS TECHNOLOGIES PVT. LTD.

Main Office Address

Office #306, Maharana Pratap Complex, Behind V.S. Hospital,
Ashram Road, Ahmedabad - 380006, Gujarat, India.

Factory Address

59, MahaGujarat Industrial Estate, Behind Surbhi Dining Hall,
Sarkhej Bavla Road, Moraiya, Ahmedabad - 382213, Gujarat, India.

Contact

M. :+919924826584
Email Id : contact@gridbots.com
Website : www.gridbots.com

