MACHINE VISION SOLUTIONS

2018

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plugandplay

Automation

GRIDBOTS TECHNOLOGIES

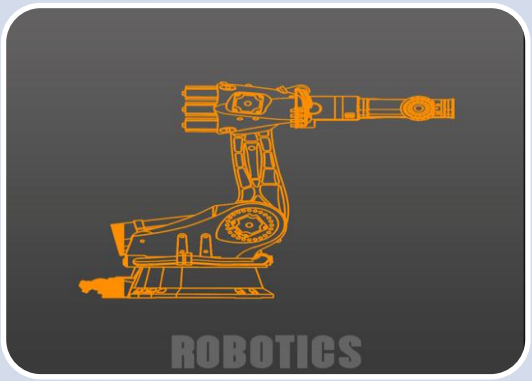
1) Founded in 2007, Headquarter in Ahmedabad, India
2) Leaders in Industrial Robotics and Machine Vision Systems
3) Recipient of many national and international awards including MIT and Indian Government for technological innovation
4) Recognized as “Champions of Change” by PMO.

ABOUT THE FOUNDER

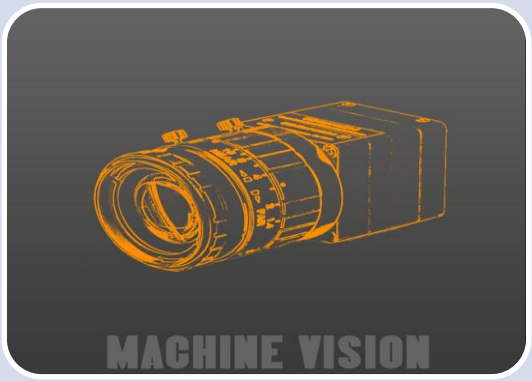
The founder of Gridbots is **Mr. Pulkit Gaur**, India's leading Robotic, Artificial Intelligence & Machine Learning expert. Some of his achievements are:

– TED Fellow	2009
– IIM Ahmadabad – Govt. of India – Anveshan Gold Medal	2009
– Gold Medalist - DST Lockheed Martin -	2010
– Massachusetts Institute of Technology (MIT) – Innovator of the Year	2011
– Nasscom Top 8 Innovation Award	2011
– Business world – Hottest Entrepreneur Award	2012
– Rajiv Motwani (Google's Founder) Fellowship	2013
– Best Startup of Gujarat for Gridbots Technologies	2015
– Top 25 Technology Innovators of India (Govt .Of India – MSME)	2015
– "Champions of Change" Prime Minister's Office	2018

WHAT WE DO ?



1. Robotic Arms
2. Autonomous Vehicles
3. Robotic Packers
4. Robotic Sorters



High Speed Online

1. Inspection, Measurement & Verification
2. 3D Imaging
3. Track & Trace

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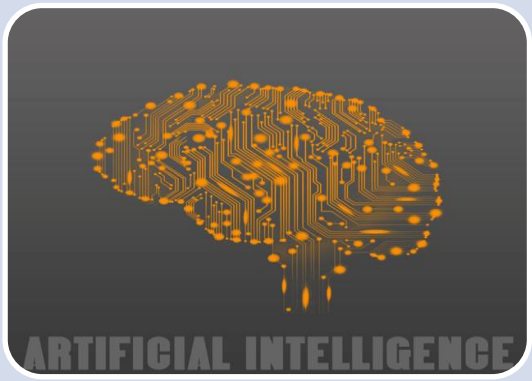


Deep learning based

1. Classification systems,
2. Text mining system and
3. Autonomous guidance

Powerhouse
in
Machine Vision Solutions

Vision Solutions

S. No	Product Name	Description	Use Cases
1	FabriCheck	Large Item – 2D inspection of size, print quality etc	PolyBags, Fabric etc
2	PanaView	360 degree inspection system	Tubes, Caps, Bottles
3	MicroView	10 micro + inspection system	Minerals, Biological
4	InspectIS	Single Camera Inspection System	Tiles, Soaps, Blisters etc
5	Geometric CAM	Single Camera Dimensioning Systems	Mattress
6	Glasso	Glass Inspection	Float Glass, Bottles and Vials
7	AutoTrack	Track and Trace	Tablets, Seed, Cartons
8	Text Miner	OCR and OCV on large area	Labels, Files, Lottery Machines
9	zSCAN	3D Analysis System	Tires
10	Thermos	Thermal Imaging	Seal Quality Inspection

FabriCheck – Large Item Inspection Table

1) Inspect – Item size upto 1200 by 800 mm
2) Single Side and Both Side Inspection Option
3) Items / Hour – 1500
4) Defects – Dimensions, Print and Texture related defects
5) Auto feed items to inspection table
6) Separate items into good and bad bin
7) HMI – Intuitive, Modular and Easy to Use

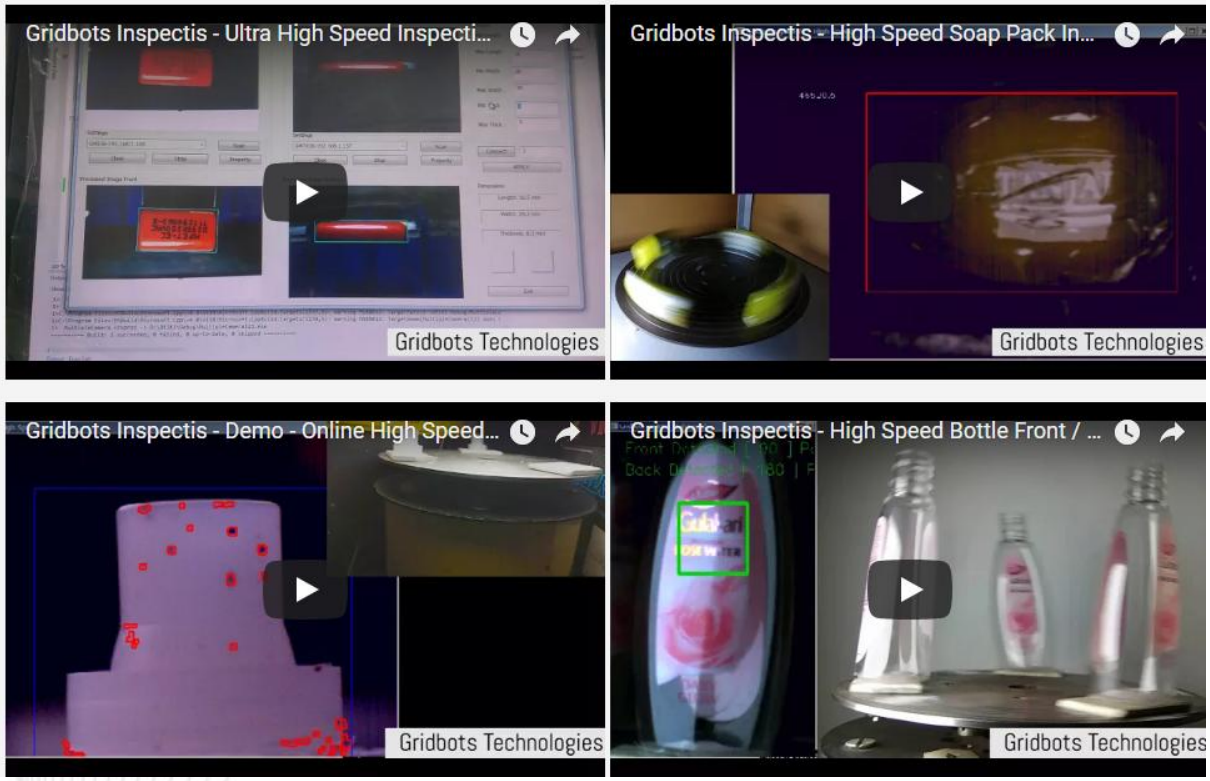
PANAVIEW – 360 Degree Inspection System

1) Inspect – Any items in 360 degree – e.g. tubes, bottles, caps using 3 to 5 cameras
2) Items / Hour – 40,000 to 60,000 parts
3) Defects – Mould, Dimensions, Material, Product Label, Cosmetic defects
4) Online and Offline Modes
5) Rejects defective items
6) HMI – Intuitive, Modular and Easy to Use

MicroVIEW – AI Enabled Microscope

1) Inspect – Any items of sizes 10 micron to 500 micron in 2D
2) Auto Identify – Count, Color, Transparency, Fluorescence, Height Measurement, Area, Aspect Ratio, Contamination analysis
3) Servo based Rotary Table and XY Table Mode
4) HMI – Intuitive, Modular and Easy to Use
5) Auto Report Generation as per client requirement

InspectIS – Single Camera Inspection



1) Inspect – Any items of sizes in 2D as per client requirements
2) Defects – Cosmetic, Dimensions, Material and Label Defects
3) Top/Side Mounted Cameras
4) Online & Offline Mode
5) Autoreject
6) HMI – Intuitive, Modular and Easy to Use
7) Auto Report Generation as per client requirement

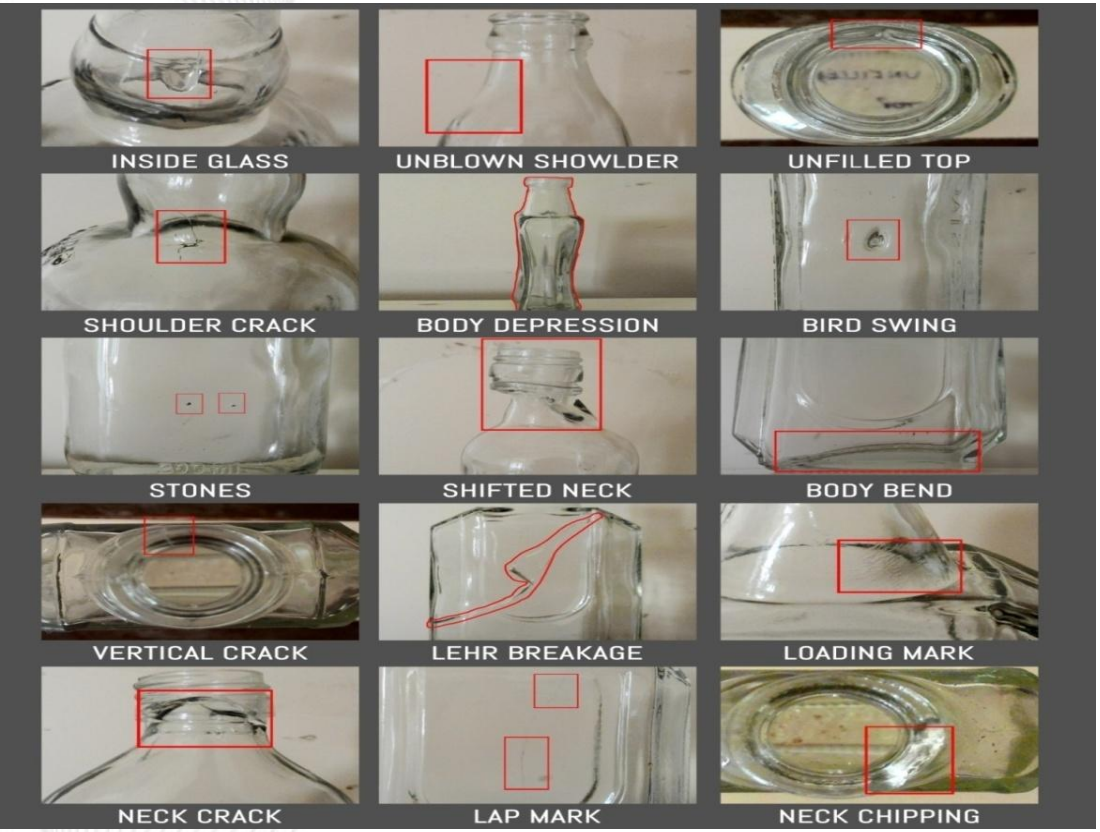
GeometricCAM – Auto Dimensioning

1) Inspect – Dimensions in 3D
2) Sizes – Measures Dimensions (L*B*H) - 2500 mm by 2500 mm by 300 mm with 1 mm accuracy
3) Online & Offline Mode
4) HMI – Intuitive, Modular and Easy to Use
5) Autorejection
6) Auto Report Generation as per client requirement

Float Glass Inspection

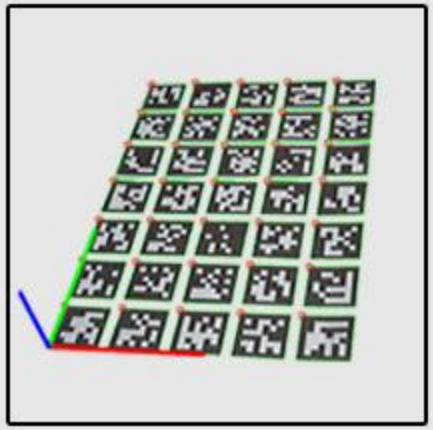
1) Inspect – Float Glass at 20 meters / minute
2) Defects – All cosmetic, furnace and roller defects
3) Top Mounted Camera System for Inspection
4) Online – Directly mounted over the glass conveyor
5) Auto mark defective glass & send rejection signal to picker
6) HMI – Intuitive, Modular and Easy to Use
7) Auto Report Generation as per client requirement

Glass Bottle Inspection

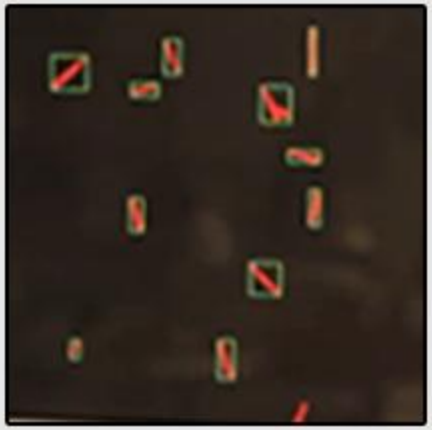


1) High Speed Inspection of Multiple Defects in Float Glass, Solar Glass, Bottles, Tumblers.
2) More than 25 defects of Glass can be detected.
3) 300 Bottle Per Minute.
4) Rejects defective bottles.
5) HMI – Intuitive, Modular and Easy to Use.
6) Auto Report Generation as per client requirement.

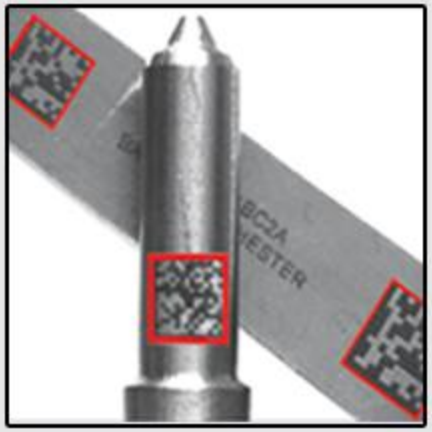
AutoTRACK



PATTERN TRACKING



SEED COUNTING

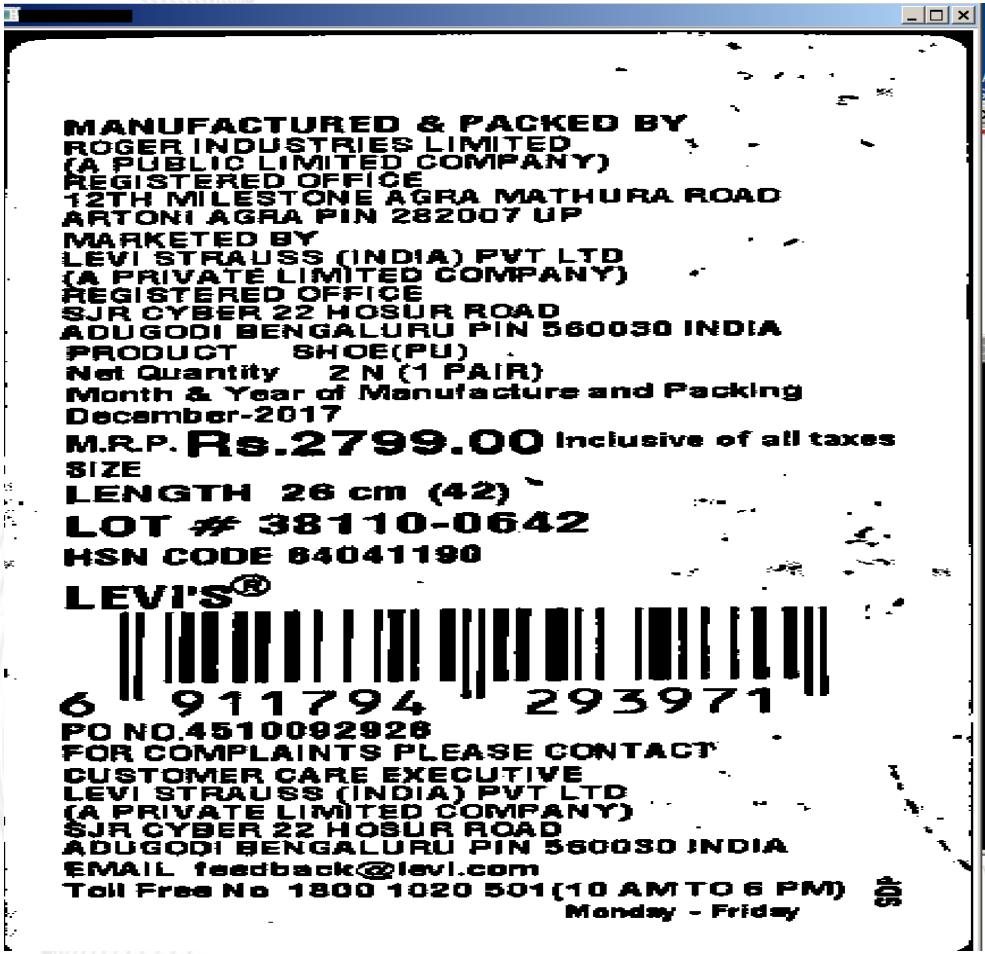


OBJECT TRACKING

LOGO TRACKING

1) Track 3,000 objects / second
2) Read Rate – 400 Hz
3) Tracking Object Type - 2D Marker - Object Logo - AR Marker Custom Shape, Active Markers.
4) Use Case – Real time counting of Seeds/Tablets/Washers/Nuts/Bolts
5) HMI – Intuitive, Modular and Easy to Use
6) Auto Report Generation as per client requirement

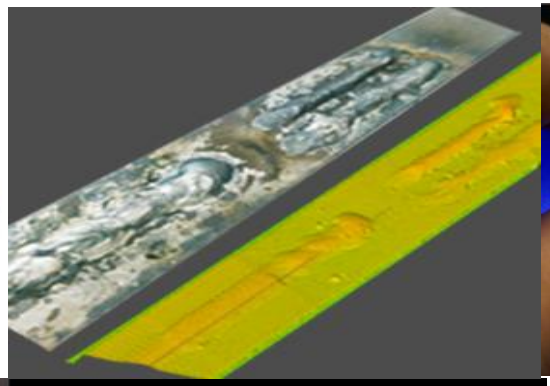
TextMiner – AI enabled text extraction

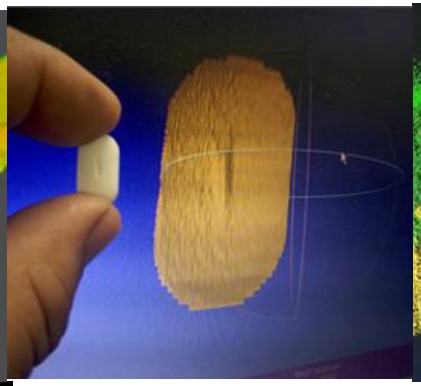


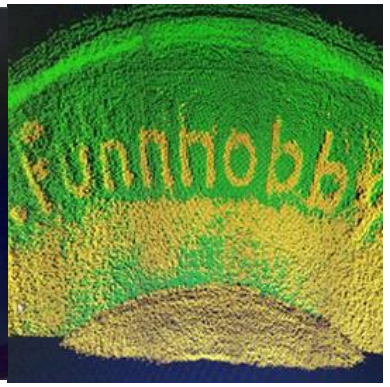
1) Large Scale OCR – traditionally not possible in general machine vision systems
2) E.g. Decode Lottery Machine Numbers, Shipping Labels Decoding, Number Plate, Handwritten text

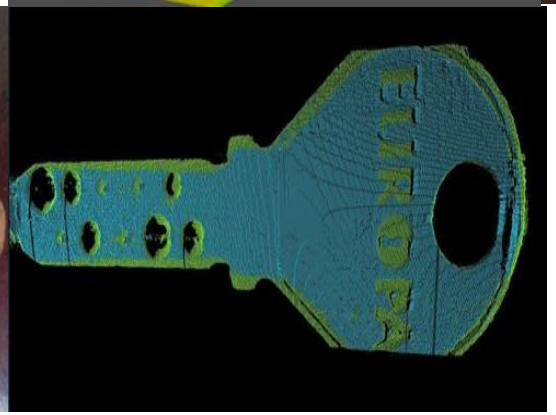
3D Profile Scanning – zSCAN

1) Laser Based Profile Scanning System with 50 Micron Resolution – 5000 Hz Scan Rate – Use Case.
2) Weld Quality Inspection, Height Measurement, Part Quality & Profile, Presence / Absence, Black on Black Reading (tyres), Shiny Object reading (metal)

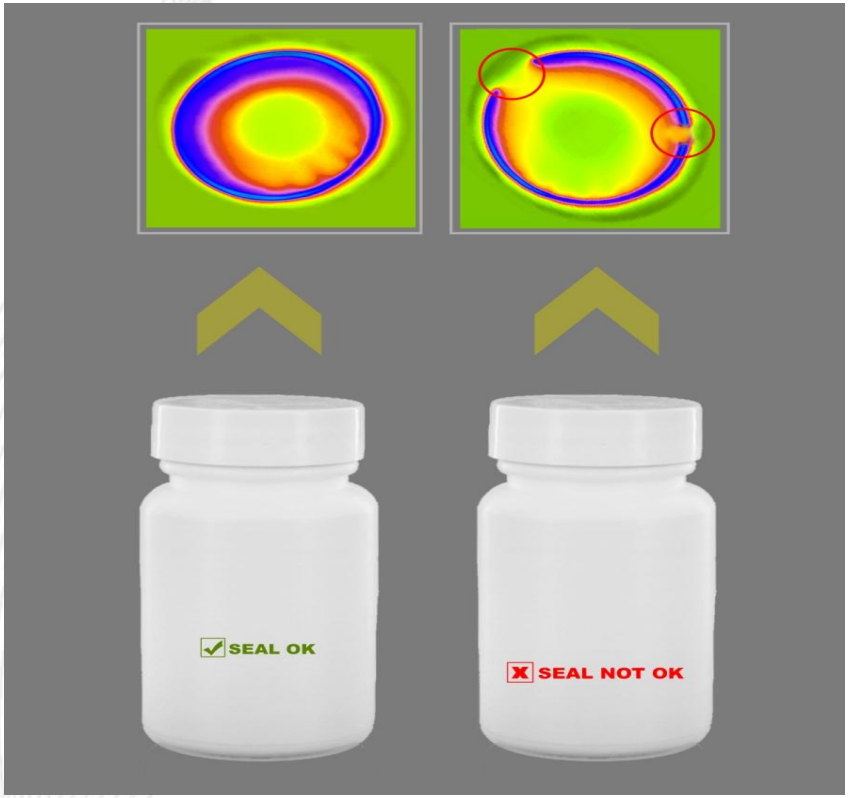








thermMOS – Seal Integrity Inspection



1) High Speed Non Contact Induction Seal Integrity Inspection
2) Up-to 120 Bottles per Minute
3) Feedback for Torque Control to Sealing Machine
4) Detect issues such as under heating, over heating, missing or bent foil, damaged seal etc.
5) Automatic rejection of defective seals

FOR QUERIES?

Vivek Dhariwal
vivek@gridbots.com
+91-9601848681
Follow us on Twitter : @gridbots