

Machine Vision

Robot Guidance

Simone Biasini

SICK

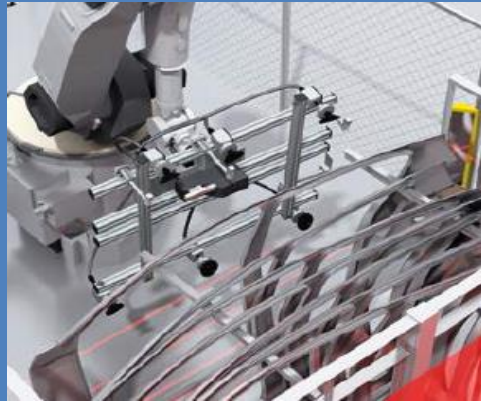
Sensor Intelligence.



BIN/TOTE PICKING

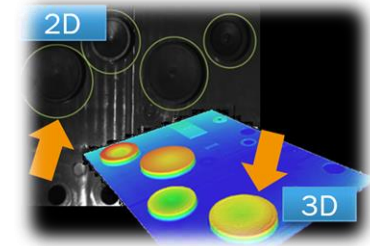


DE-RACKING

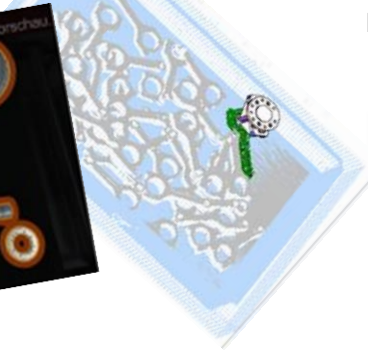


BELT PICKING

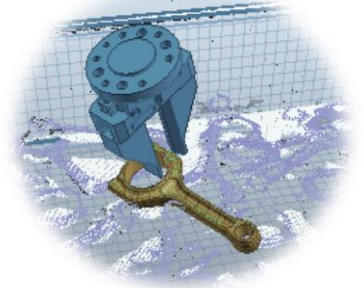
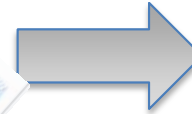




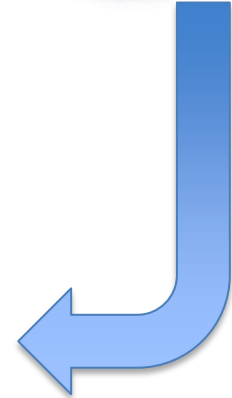
LOCALIZZAZIONE



VALUTAZIONE
PRESE
E TRAIETTORIE



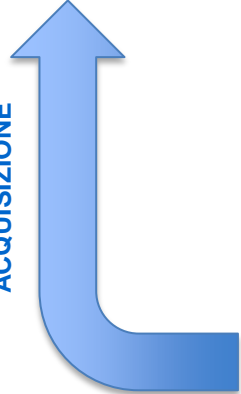
PRELIEVO



PEZZO
SUCCESSIVO



SCANSIONE /
ACQUISIZIONE

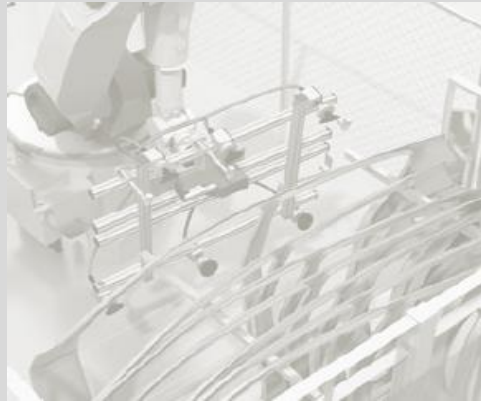




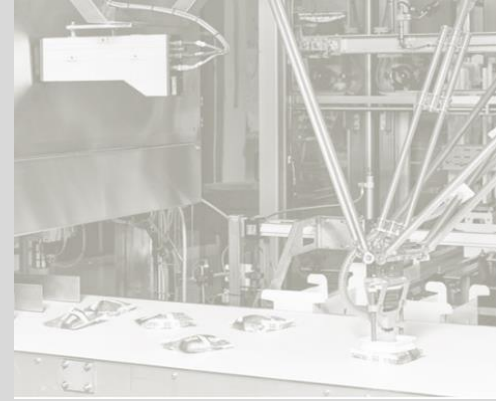
BIN/TOTE PICKING



DE-RACKING



BELT PICKING



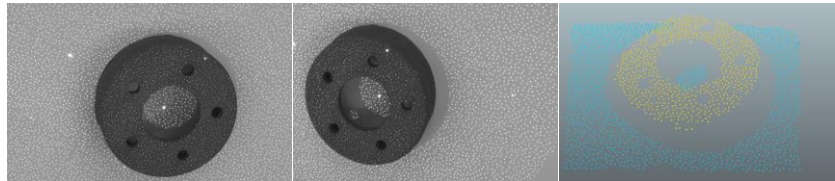
COS' È IL BIN PICKING?

Sistema, composto da robot e camere di visione, che effettua il prelievo di oggetti noti disposti in maniera casuale (Random Bin Picking) all'interno di cassoni.



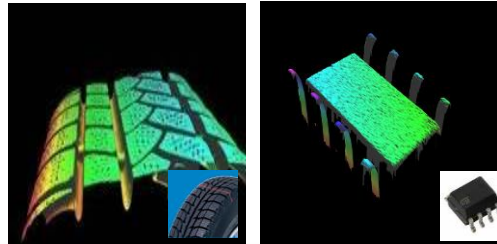
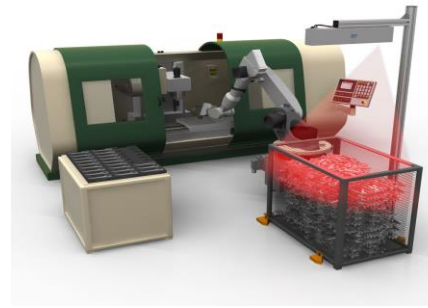
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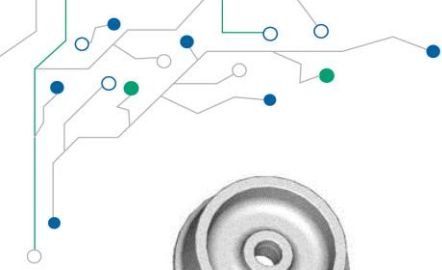
Acquisizione delle immagini con oggetti fermi (o in lento movimento) sotto alle camere.



TRIANGOLAZIONE LASER

Scansione delle immagini attraverso movimentazione degli oggetti o della camera stessa.



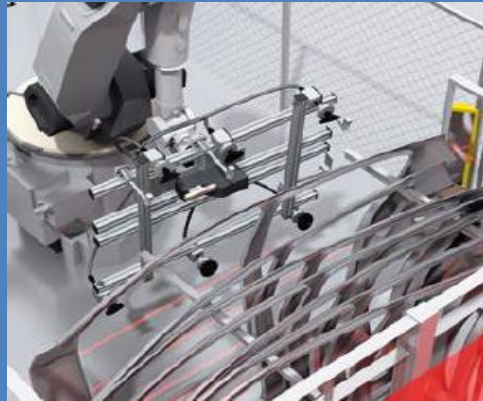




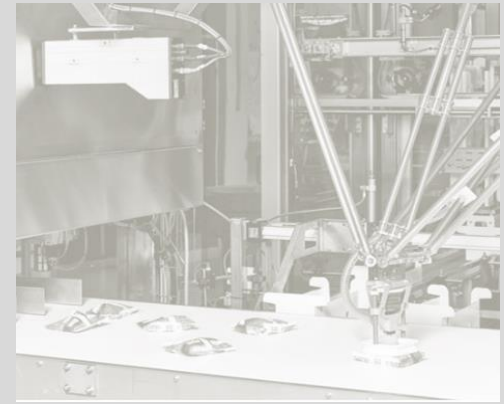
BIN/TOTE PICKING



DE-RACKING



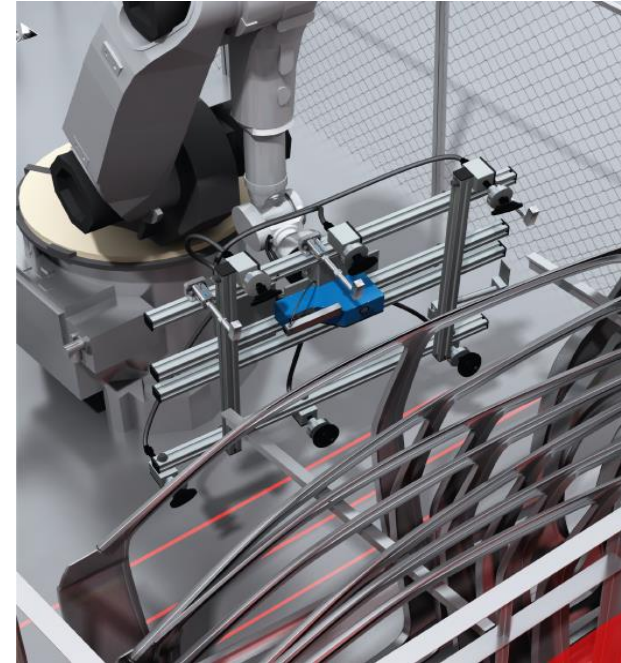
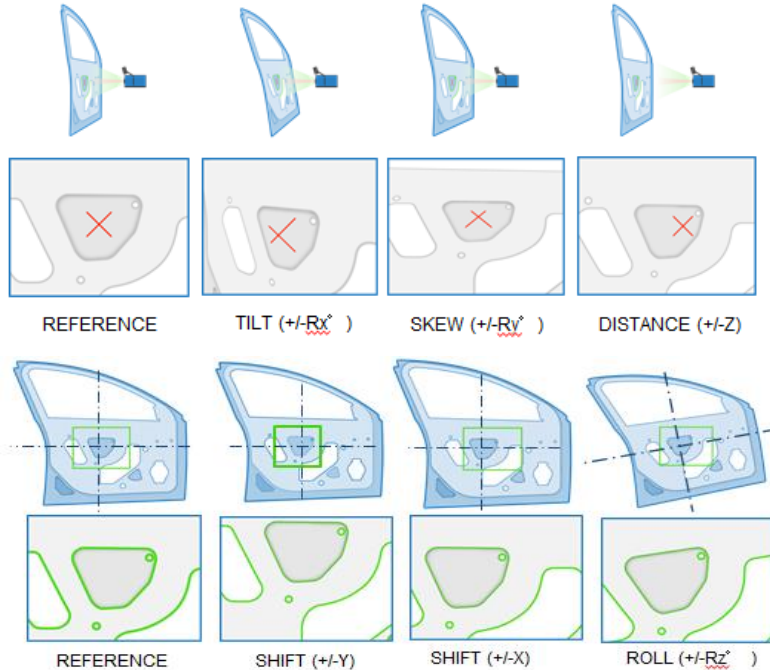
BELT PICKING



COS' È IL DE-RACKING?

Sistema che consente la presa di particolari disposti su rastrelliere.

L'immagine viene acquisita in 2D ma, in funzione di forma e dimensione di un pattern definito, il sistema è in grado di calcolare il piano di inclinazione e la distanza di posizionamento degli oggetti rispetto alla camera, favorendo una guida robot precisa e affidabile.

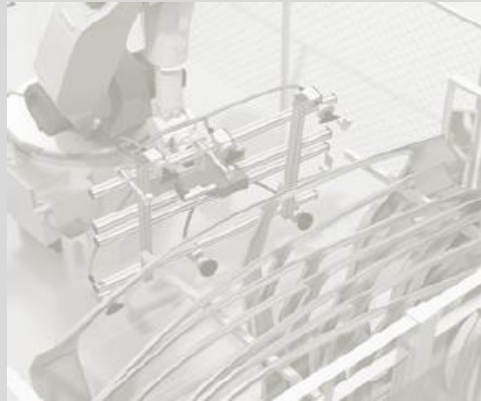




BIN/TOTE PICKING



DE-RACKING



BELT PICKING

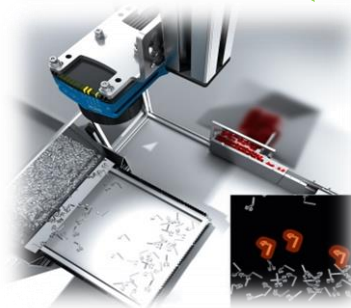


COS' È IL BELT PICKING?

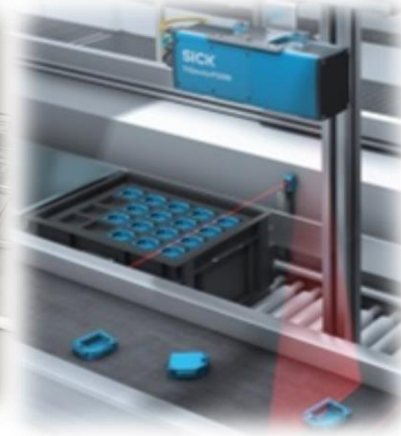
Sistema che effettua la presa di oggetti (anche di diversa natura) movimentati attraverso nastro trasportatore.

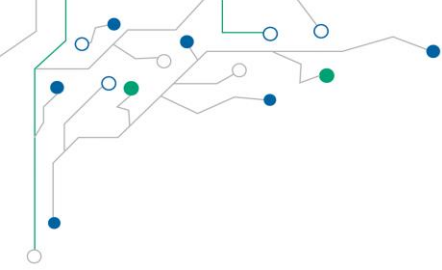


Visione 2D



Visione 3D – Triangolazione laser





Grazie per l'attenzione