

VERIFy











The Challenge

How can we improve the defect identification and correction on casted parts?



State of the Art:

- Quality control traditionally performed by human visual examination
- Finishing processes for corrective actions is also performed by human (requiring sensitivity and accuracy



Pain:

- Non-ergonomic operations that can affect the health and safety of the operator
- Production efficiency

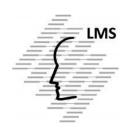






VERIFY















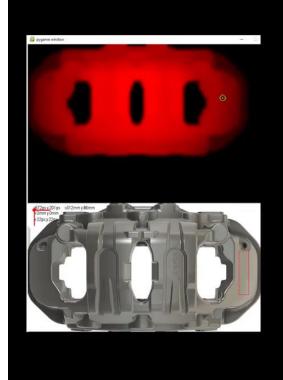












| Parameter Grinding Feed rate | Value | | |
|---------------------------------|------------|----------|-----|
| | V | 0.001 | m/s |
| Estimated environment stiffness | K_E | 10^{5} | N/m |
| Integral gain | K_I | 5 | |
| Tool radius | R_{tool} | 12 | mm |
| Force reference | F_{rif} | 20 | N |

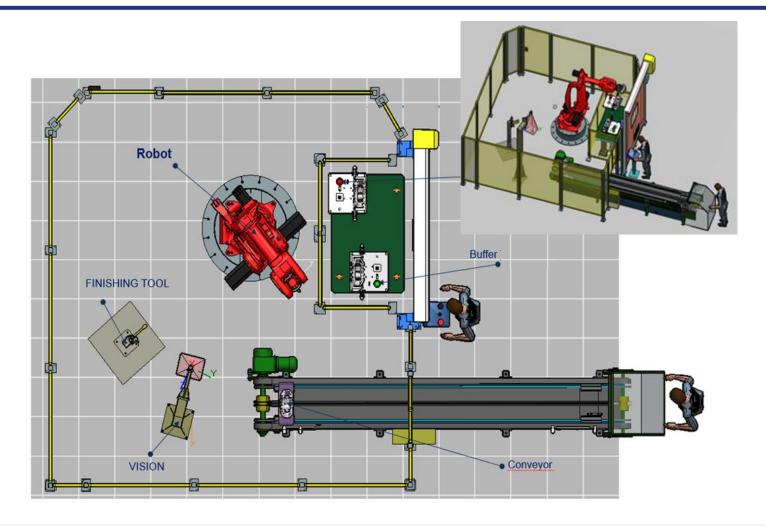








The Final Cell









Results

VERIFY

The VERIFy cell enhances the efficiency of the production and the workers condition.

Benefits

- Reduced Time and Cost
- Increased defects diagnosis
- Reduced subjectivity of the workers
- Reduced nonergonomic tasks
- Minimisation of deburring equipment
- Less spare parts









