

## General information

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Project name

Name of company

contact name for project

Scheduled begin of installation

Scheduled completion

Existing resources (mechanical , PLC, machine vision)

## Description of machine vision application

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- |  |   |
|--|---|
| <input type="checkbox"/> Part presence           | <input type="checkbox"/> Barcode reading 1D/ 2D         |
| <input type="checkbox"/> Positioning application | <input type="checkbox"/> Color inspection               |
| <input type="checkbox"/> Template matching       | <input type="checkbox"/> Bead inspection                |
| <input type="checkbox"/> Robotic solution        | <input type="checkbox"/> Triangulation / 3D application |
| <input type="checkbox"/> Measurement application | <input type="checkbox"/> Other                          |
| <input type="checkbox"/> Print inspection        |   |
| <input type="checkbox"/> OCR/ OCV                |   |

## Features to be tested

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- Number of different inspection objects:
  
- Inspected features/ defects:



## Description of inspected part

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Shape, dimensions (from ...to)

### Material

- |                                      |   |
|--------------------------------------|---|
| <input type="checkbox"/> metallic    | <input type="checkbox"/> transparent        |
| <input type="checkbox"/> plastic     | <input type="checkbox"/> opaque             |
| <input type="checkbox"/> wood/ paper | <input type="checkbox"/> non-transparent    |
| <input type="checkbox"/> ceramic     | <input type="checkbox"/> composite material |

### Surface/ form

- |   |   |
|---|---|
| <input type="checkbox"/> smooth           | <input type="checkbox"/> painted        |
| <input type="checkbox"/> glossy           | <input type="checkbox"/> oiled, greased |
| <input type="checkbox"/> polished         | <input type="checkbox"/> printed        |
| <input type="checkbox"/> rough            | <input type="checkbox"/> refinded       |
| <input type="checkbox"/> structured       | <input type="checkbox"/> plain          |
| <input type="checkbox"/> matt             | <input type="checkbox"/> bumpy          |
| <input type="checkbox"/> reflekcive       | <input type="checkbox"/> arched         |
| <input type="checkbox"/> oxidized surface | <input type="checkbox"/> cylindrical    |
|   | <input type="checkbox"/> spherical      |

### Color

- Bright
- Dark
- Monochrome
- Multicoloured
- Monochrome part in different types
- Known process variations:

Additional details:

## Accuracy

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## Feeding tolerances

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- In the direction of transport:
- Traverse to direction of transport:
- Height differences feeding :
- Twisted / tilted:

## Samples

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- Available? Pre-series slightly different?
- Parts only surveyable and testable at customer?
- Confidentiality agreement needed?

## Optics

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- Size field of view:
- Accuracy
- Possible working distance (Min/ Max)
- Special features (eg macro, telecentric, etc.)
- Other
- Filter
- Optics feasibility study required?

## Illumination

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- Ambient light
- Background, object (for example color, material)
- Object (eg color, structure, surface, variations, reflections...)
- Installation options (dimension, position)
- Other
- Feasibility study required?

## Installation and system environment

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- Pollution (dust, dirt, oil, mist, steam)
- Temperatures
- Humidity
- Electrostatic spikes
- Vibrations
- Electromagnetic radiation

## Interfaces, PLC, communication

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- Signals to the image processing system
- Output signals from the image processing system
- I/O signals
- Serial interface
- Ethernet interface & others:
- Data logging
- Image recording/ logging

## Hardware requirements

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- Space for camera with lens and light
- Sketch with dimensions
- Placing hardware components (pc system, I/O breakout boards, controllers)
- Cable lengths
- Cable types (chain track, robot cable, silicone-free, halogen-free etc.)
- Mechanical attachment
- Protection enclosures
- Additional electrical cabinet

## Required additional services

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- Test setup
- documentation
- Installation advice
- Start-up support
- Application programming