Laboratory Course n° 4
–
Compact Vision System

Objective

Study and program a Compact Vision System from KEYENCE

Equipment

- Controller unit (CV-2100)
- Remote control console (OP-42342)
- Monitor cable (RCA - RCA, 2 m)
- Camera (CV-020)
- CV-C3: Camera cable (3 m)
- Monitor CA-MN80
- 24 V DC power supply
- Industrial Parts & Backlight

Software

- Embedded KEYENCE Software

Documentation

- User Manual - High-speed Digital Image Sensor CV-2100

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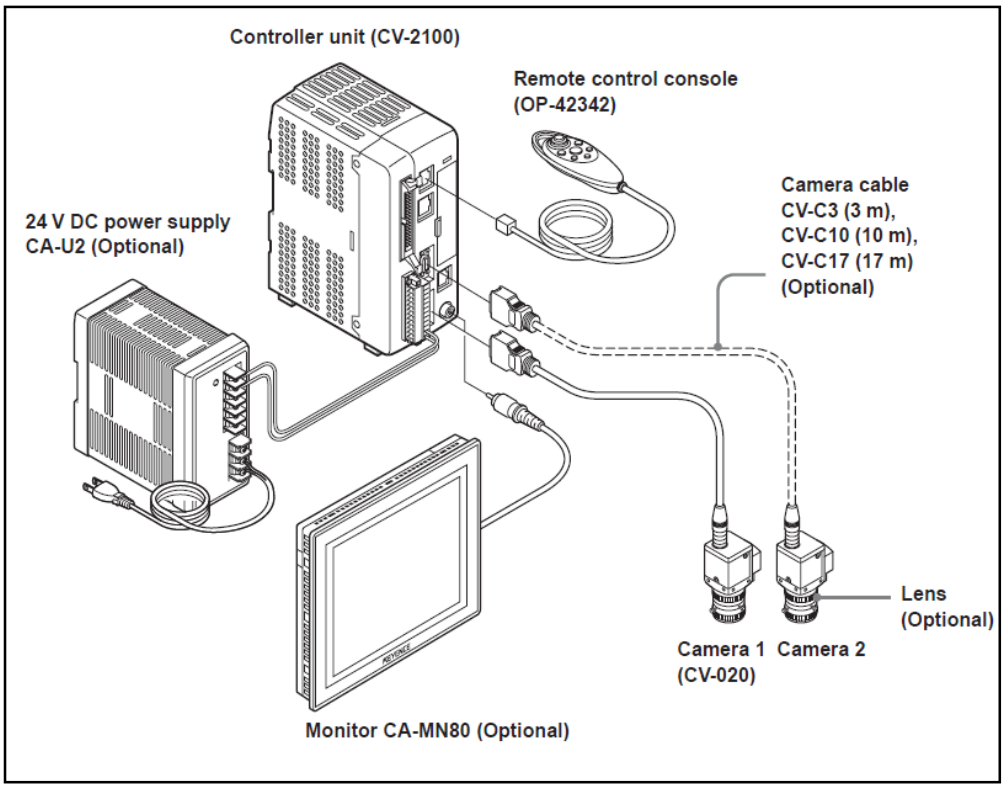
Installation

In order to carry out this step, consult the user manual



1. Connect Cables

2. Start Grabbing images

Study user manual chapter 3 for Basic Operation.

Set Camera Settings (chapter 4.2) to obtain a satisfactory image of the shadow of the part.

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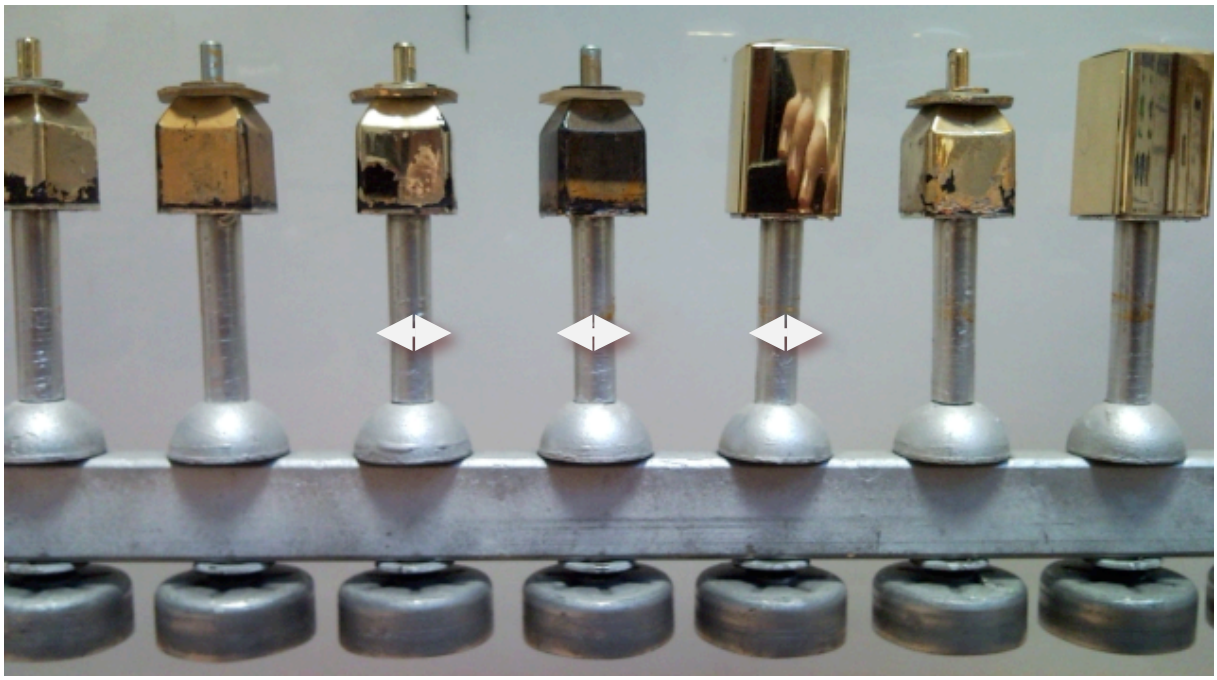
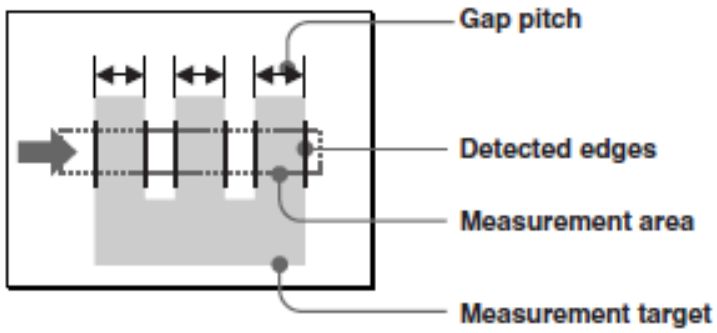
Edge Detection

You have to program edge detection in order to characterize the holder width on the industrial part.



By using "Edge Pitch" Measurement Mode program the following measure to estimate the width of the holders:



Follow carefully the steps described in "Edge Pitch" chapter (page 4-56 of the user manual).

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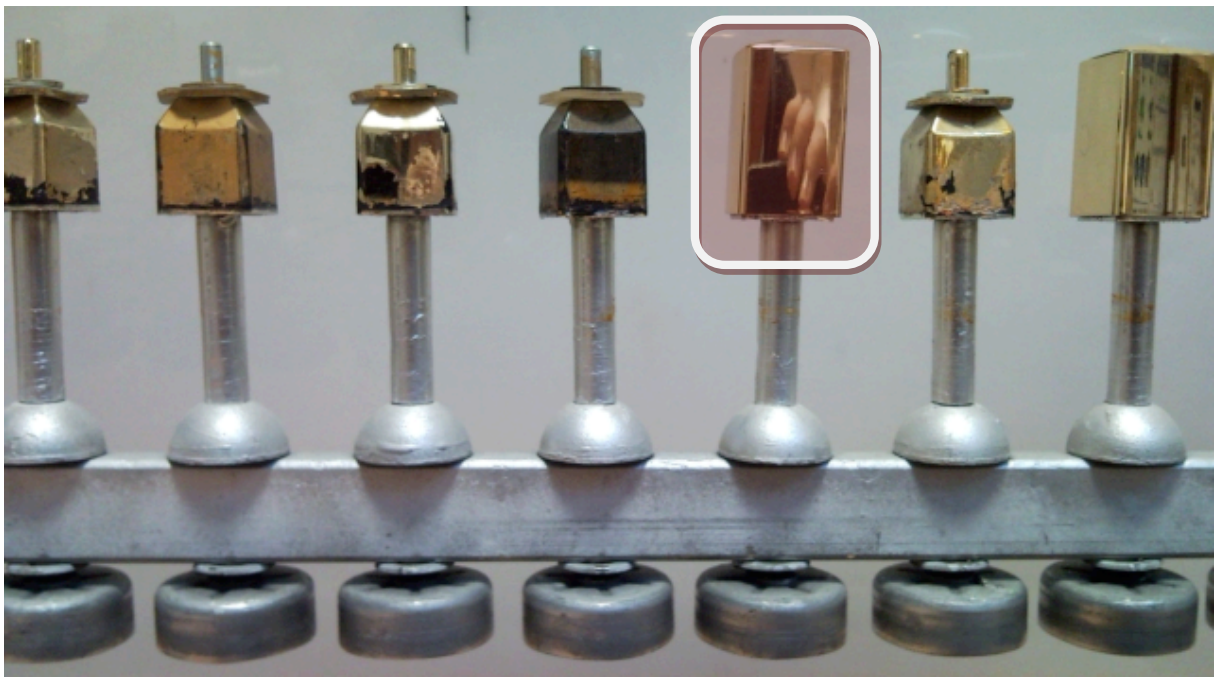
Caps Detection

You have to program the detection of perfume caps on the holder.



Select the appropriate tool to perform this detection.

Give your conclusions about compact vision systems