

ROVI: Exercise 6 - Template Matching

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1 Introduction

This weeks exercise is an introduction to pose estimation using template matching.

A file containing all material for this weeks exercise can be found on BlackBoard.

Before running the code you need to install COVIS, using the following guide:

```
cd Workspace
git clone https://gitlab.com/caro-sdu/covis.git covis
mkdir -p covis/build
cd covis/build
cmake ..
make
```

The goal is to perform object detection in 2D images using rendered templates. You have to implement the LineMod object detection from:

https://docs.opencv.org/3.4/d7/d07/classcv_1_1linemod_1_1Detector.html

You are to complete the following tasks:

- Download and build Covis
- Download and build `template_matching`
- Create Templates
- Create LineMod detector
- Detect test images

Optionally you can find the full object pose, using the template, the generated pose and the 2D position.