Eden Robotic Report

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Contents

Introduction

0.1 Presentation

0.2 Software

During this project, we used the following softwares :

- Matlab 2020b

- Python 3

- OpenCV 3

- Ubuntu 20.04

0.3 Hardware

During this project, we used the following hardware :

- Raspberry pi 4

- Dynamixel motors (XL430,XC350)

- Stereo Camera

Thanks to Centrale, we used the following technics of fast prototyping to build our arm :

- Laser Cutting

- FDM 3d printing (pla)

Design

1.1 base

Modelling

Coupling

Computer vision

4.1   Vision

4.2   Depth vision

Control

5.1   OpenLoop

5.2   ClosedLoop

Bibliographie