

# Eden Robotic Report

Antoine Alessandrini

01/09/2020 - 14/02/2022

# Contents

<b>Introduction</b>	<b>2</b>
0.1 Presentation . . . . .	2
0.2 Software . . . . .	2
0.3 Hardware . . . . .	2
<b>1 Design</b>	<b>3</b>
1.1 base . . . . .	3
<b>2 Modelling</b>	<b>4</b>
<b>3 Coupling</b>	<b>5</b>
<b>4 Computer vision</b>	<b>6</b>
4.1 Vision . . . . .	6
4.2 Depth vision . . . . .	6
<b>5 Control</b>	<b>7</b>
5.1 OpenLoop . . . . .	7
5.2 ClosedLoop . . . . .	7
<b>Bibliographie</b>	<b>8</b>

# 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