

Ecole Centrale de Nantes  
EMARO - ARIA  
Design Robotics  
Project - Design of a parallel robot

A. SARAZIN and L. MARSAULT

The aim of the lab is to design a parallel robot on CATIA after studying the type synthesis of parallel mechanisms that fulfilled the exposed problem. The developed model on CATIA with the simulation will be given with this report.

## **1 3D parallel printer**

### **1.1 Presentation**

Presentation

### **1.2 Constraints**

Constraints

## **2 Type synthesis of the parallel mechanism : 3-DOF single loop KCs with $\xi_\infty$ - system**

### **2.1 Determine the number of joints**

## **3 CATIA**

A

## 4 Simulation and Results

Dynamic and check workspace