Stepper Motor

Control & Drive

Ayman Miri & Christian Steffen

Lycée Guillaume Kroll  32, rue Henri Koch

# Introduction :

## Describe the mission :

* Stepper motor project : We got this project in our second semester, our task was controlling the motor. As we know, controlling a stepper motor needs a driver and a microcontroller, now we can say it’s easy until you hear that you are not allowed to use library and a driver who has a translation module inside of it and the motor you are going to drive is a bipolar motor, we all know that this type of motor requires a lot of work to be driven like software and hardware.
* The main task was driving the motor with four buttons and each button got his own task like first button will move the motor 10 steps forward and second one will move it just one step for the other two button it’s just the opposite.

## How it goes :

* We started first with the time planning and dived the mission between us, then searching about the materials that we are going to use like the type of driver and the microcontroller also and of course looking how the bipolar motor works.
* We decided to use the driver l298n because it has two full H bridge circuits, and he got no translation module.
* Then the choice of the microcontroller was of course the (Arduino UNO) not because it has more Ram and speed then other, but it’s just because we had it already.
* After the decision on the time planning, the search that we effected on the materials

# Material List :

# Software :

# Time planning :

# Theory :

## Arduino :

## Driver :

## Stepper Motor :

## Pushbutton :

## Oled :

# Schematic :

# Program :

# 3D Design and Printing :

# Evaluation :

# Appendices :