

# ReadMe-Arduino PID

Our system presents an inverted pendulum using Arduino Uno and PID library and the Encoder library

## Description

In order to use the system, you need to connect the Arduino to your computer

To reset the system at zero degrees, you need to push the red button when holding the pendulum straight up

After that you can insert the goal degree between -15 to 15 degree onto the serial plotter and the program will start to fix the error degree until reaching the goal degree.

## Getting Started

Dependencies: Arduino IDE include the PID library and the encoder package you need to download from the internet

via Sketch -> include library-> zip -> choose the encoder /PID library you've downloaded from the web

Installing: For further information, use the link attach below <https://docs.arduino.cc/software/ide-v2/tutorials/getting-started/ide-v2-downloading-and-installing>

## Executing program

Open the Arduino IDE Program --> click "file" --> click "open" --> choose the file from the relevant folder on your computer --> connect the Arduino Uno device by

USB --> click "verify" button (v shaped) --> click  
"Upload"(arrow shaped) button

## **Help**

- Do not execute the program before you connect the tongs to the table! It can be hazardous!
- Make sure you connected the engine correctly to the electricity.

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