

# **Jet Engine Documentation**

**Author :** Joey Dihadjo

**Contact :** koentarij@gmail.com

# Introduction

We are a group of bachelor students at the Technische Universität München. In this documentation, we will be noting down how we built our Jet Engine step-by-step. The jet engine we are building is a Turbojet Engine, the size and performance will be constrained since our funding and time is very limited.

## Planning

The start of the project is research and analysis parts. Then comes the designing part and finally, manufacturing. The following components are going to be developed in order from first to last : Compressor, Fan, Turbine, Combustor, Nozzle. Besides that, we are also going to create our own pump for the fuel and software for the sensors and automation tasks.

## Compressor

### Compressor Blade

This section will be dedicated to researching, analysing, and designing the fitting blade geometry, using the NACA configuration.

The first part would be determining the airfoil shape. Next is determining the entire geometry and if needed, doing stress analysis.

Pritchards Airfoil geometry design for turbine blade

## **Add heading 2 here**

This template will guide you through adding content for each section.

- Quickly summarize complex information with bullet points, compelling data, or even interesting facts.
- Include quotes from notables or highlight positive reviews or testimonials.