

1> Dataset for latex code from natural language text

<https://github.com/knowledge-verse-ai/TeXpert>

2> LLM for converting plain text, word or pdf to Latex code (project not yet completed)

<https://github.com/elotech47/doc2latex-llm>

3> detects labels and symbols from P&ID diagrams

[https://github.com/shailavij/P\\_ID-Symbol-Objectdetection](https://github.com/shailavij/P_ID-Symbol-Objectdetection)

4> symbol detection and labelling

<https://github.com/aneeshbhattacharya/Automated-PnID-Symbol-Detection-and-Labelling>

5> AutomaTikZ

takes **natural-language descriptions** and generates TikZ code

It is basically finetuned llama

<https://github.com/potamides/AutomaTikZ>

6> DaTikzV2

<https://huggingface.co/datasets/nllg/datikz-v2>

DaTikZv2 is a dataset of TikZ drawings aligned with captions

7> DeTikzify

multimodal language model that automatically synthesizes scientific figures as semantics-preserving TikZ graphics programs based on sketches and existing figures.

<https://github.com/potamides/DeTikZify>

8> vTikZ benchmark

So we don't have any model for converting tikz code to natural language instructions

**Task:** TikZ code → step-by-step natural language instructions.

**DaTikZ dataset** ma we need to convert the captions into human readable instructions using some strong general purpose LLM GPT-4o or claude.

**Then just finetune LLama on it and its done**