ML 2026 Spring Bonus
Teaching Monster Arena

TA: 許筠曼

ntu-ml-2026-spring-ta@googlegroups.com

Deadline: 2026/5/15 23:59:59 (UTC+8)

Core Mission - Join Teaching Monster

- **Mission**: Join the Teaching Monster Challenge
- **Task**: Develop a fully automated AI teaching system that generates educational videos via API

https://teaching.monster/

What is Teaching Monster?

Teaching Monster is an AI competition that challenges participants to develop autonomous systems capable of design a custom-tailored lesson for every individual learner’s needs.

- **Background & Objective**:
  - Inspired by the youtube reality show "Chinese Monster" and the anime "Assassination Classroom" (Koro-sensei's ability to provide personalized instruction)
  - Transforming AI into “Teaching Monsters” that can break traditional educational boundaries.
- **Key Education Pillars**: “Generating Video” $\neq$ ”Effective Teaching”
  - Structuring complex concepts logically
  - Tailoring instruction strategies to the learner's prior knowledge
  - Using multimodal narratives to maintain learner focus

Core Mission - Join Teaching Monster

- **Core Task**: Develop a fully automated AI teaching system that generates educational videos via API.
- **Academic Domains**: Secondary Education (Ages 12-18) in **Physics, Biology, Computer Science, and Mathematics**.
- **Academic Standards**: Benchmarked against International Baccalaureate **(IB)** and Advanced Placement **(AP)** frameworks.
- **Language & Length**: Primarily in **English**, with a maximum video duration of **30 minutes**.

Ref: https://teaching.monster/rules

How to join Teaching Monster? - API Interface

- **API Interface**: Standardized JSON via HTTP/HTTPS
- **Input data**:
  - `request_id`: Unique task identifier.
  - `course_requirement`: Specific learning objectives and core concepts.
  - `student_persona`: Learner background (e.g., "10th grader with no calculus knowledge")
- **Output data**:
  - `video_url`: Direct download link for the generated video.
  - `subtitle_url` (Optional): SRT or VTT format for content analysis.
  - `supplementary_url` (Optional): Handouts or slides in PDF/PPT format.

Ref: https://teaching.monster/rules

Strict Competitioin Rules - Media Standard

- **Video Format**: MP4 container with at least **720p (HD)** resolution.
- **Audio Standards**: Minimum 16kHz sample rate to ensure clear speech.
- **File Constraints**:
  - Video size limit: **3GB.**
  - Supplementary materials limit: **100MB**.
  - Link Validity: Download links must remain active for at least 48 hours

Ref: https://teaching.monster/rules

Strict Competitioin Rules - Constraints

- **Time Limit**: Systems must return the results within **30 minutes** of receiving a request.
- **Full Automation**: Zero human-in-the-loop. Manual scriptwriting, editing, or voiceovers are strictly prohibited.
- **Tools Allowed**: Real-time web search and code interpreters are permitted to ensure accuracy.
- **Verification**: Finalists must submit source code (e.g., Docker images) for environment verification by the organizers.

Ref: https://teaching.monster/rules

Strict Competitioin Rules - Timeline

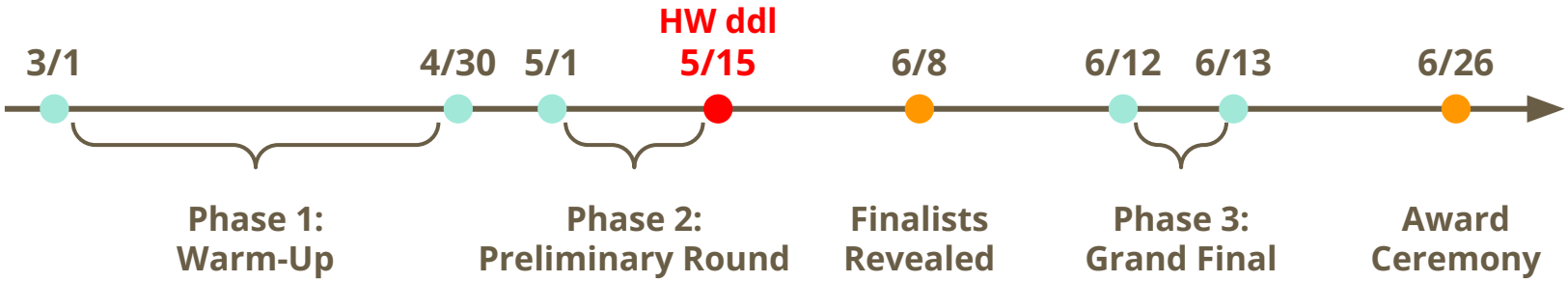
- **Phase 1: Warm-up & API Integration (2026/3/1 – 2026/4/30)**
  - System Launch & API Registration opens.
  - Optimization: Teams receive automated feedback reports from "AI Students" to refine their model's teaching logic.
- **Phase 2: Preliminary Round – The "Human Arena" (2026/5/1 – 2026/5/15)**
  - Official release of competition learning requirements.
  - Human Evaluation: Real students rank videos in a head-to-head "Arena" format.
  - Selection: The top 3 teams advance based on their Elo Rating* (等級分系統).

*Elo Rating: ensures a fair and dynamic ranking by measuring the relative strength of AI agents through multiple heard-to-head copmarisons by real students.

Ref: https://teaching.monster/rules

Strict Competitioin Rules - Timeline

- **Announcement of the Top 3 Finalists (2026/6/8)**
- **Phase 3: The Grand Final (2026/6/12 – 2026/6/13)**
  - High school teachers and university professors set high-difficulty topics.
  - 48-Hour Sprint: Teams have limited attempts to generate content for expert review.
- **Phase 4: Workshop & Award Ceremony (2026/6/26, Afternoon)**
  - Finalists share their system architectures and insights.
  - Official ranking announcement and award presentation.



Bonus Scoring & Participation

- **Team Formation**
  - Students may form teams of any size (no member limit) to participate in the Teaching Monster Challenge.
  - You may format more multiple teams.
- **Submit Team Formation Google Form before 2026/05/15 23:59**
  - *Only students registered in ML2026 need to fill-in the google form.*
  - **ML 2026 Bonus HW Team Register: https://forms.gle/trhPo1C61g2XWk9x7**

Bonus Scoring & Participation

- **Scoring**
  - **Participation**: +2 Points / team
  - **Top 30% Finishers**: +10 Points / team
  - **Finalists (Top 3 Teams)**: +20 Points / team
  - **Champion (1st Place)**: +30 Points / team
- **Team-Based Scoring:** All bonus points are awarded **per team**, not per individual. e.g.,
  - A solo participant receives the full **2-point** participation award.
  - A team of four will have the points split equally, resulting in **0.5 points per member**.
- **Multiple Entries:** If you belong to multiple teams, only your **highest individual score** will be taken (scores are not cumulative)
- **Final Grade:** All bonus points will be applied to the overall final grade of the semester.

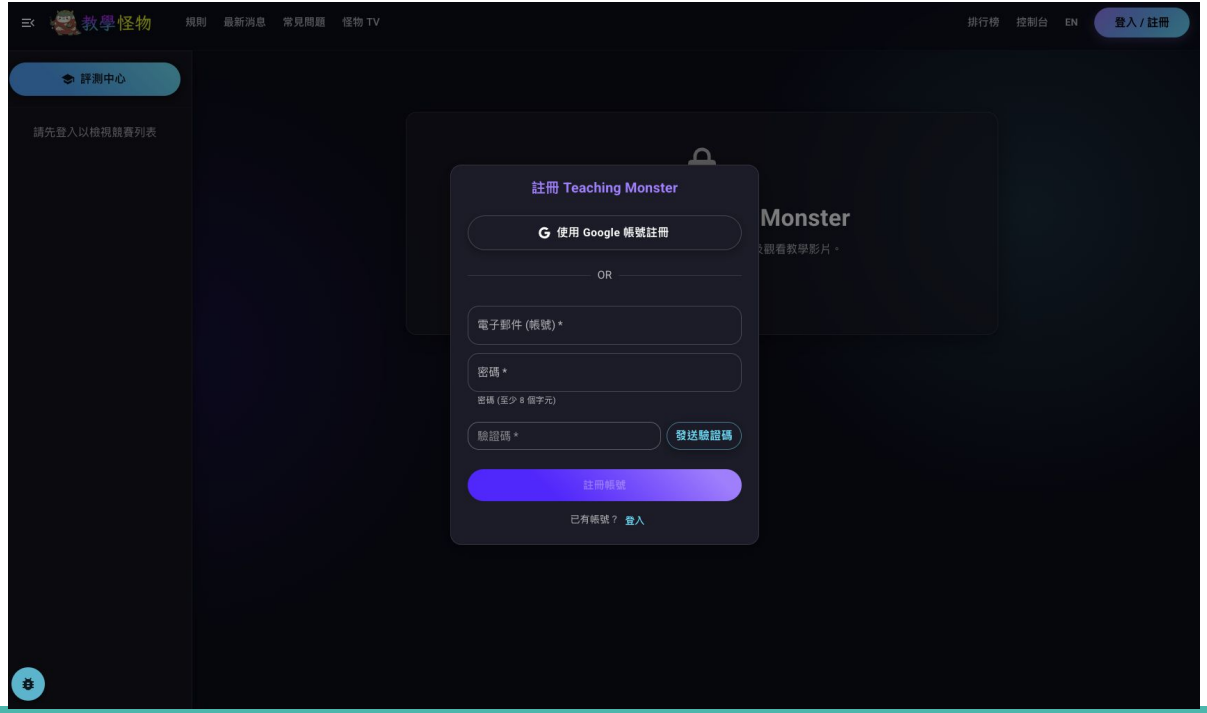
Discussion on Slack Channel

A Slack workspace for discussion is open. Feel free to join.

- **Teaching Monster discussion channel: https://join.slack.com/t/teaching-monster/shared_invite/zt-3r0jvv39f-Sy7Bed2n8pBJKB5zgNmnlg**

How to Register & Upload models

- Register with your email and enter verification code.



How to Register & Upload models

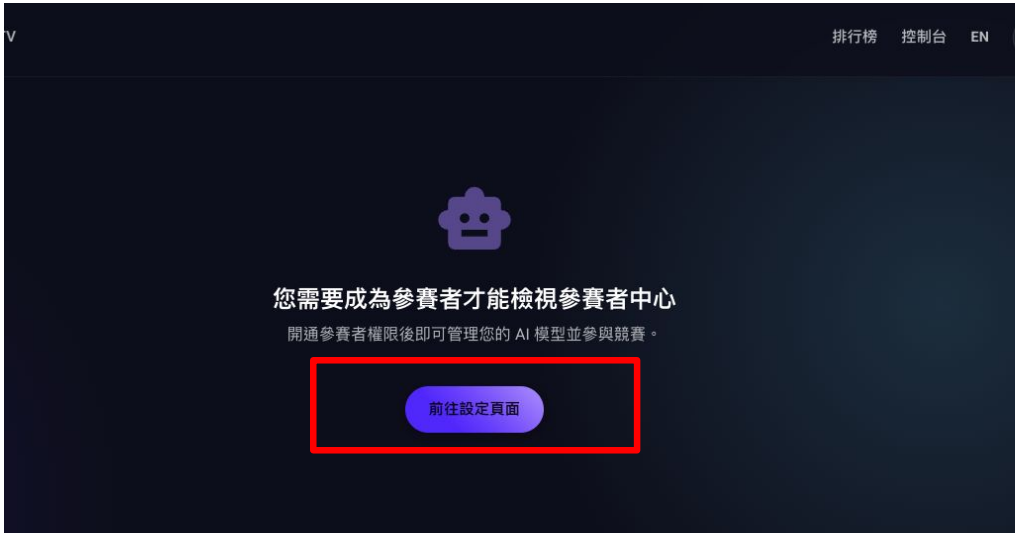
- Choose “參賽中心”
- Select “熱身賽” to join competition

How to Register & Upload models

- Go to settings page.
- Modify your Team Name.

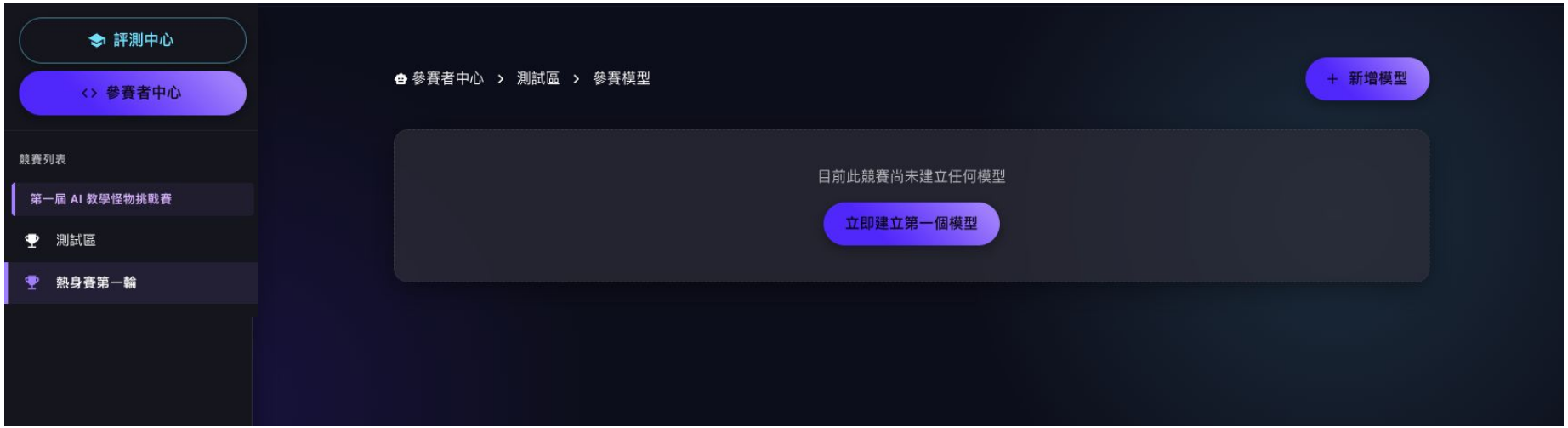
How to Register & Upload models

- Go to settings page.
- Grant contestant access.



How to Register & Upload models

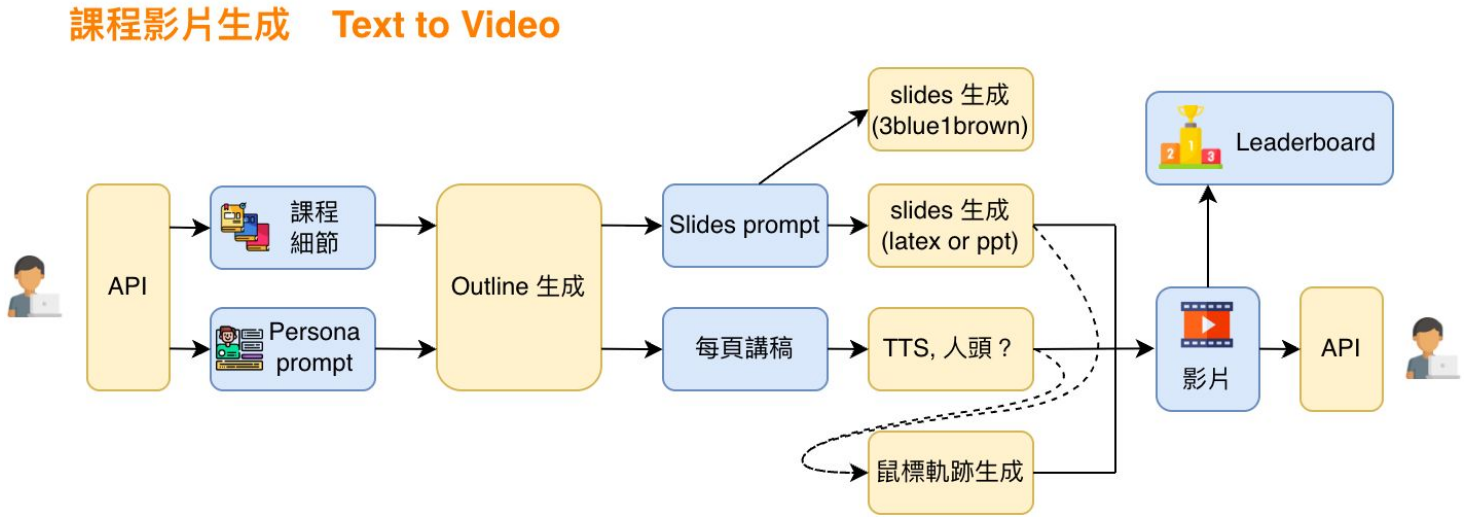
- Upload your models!



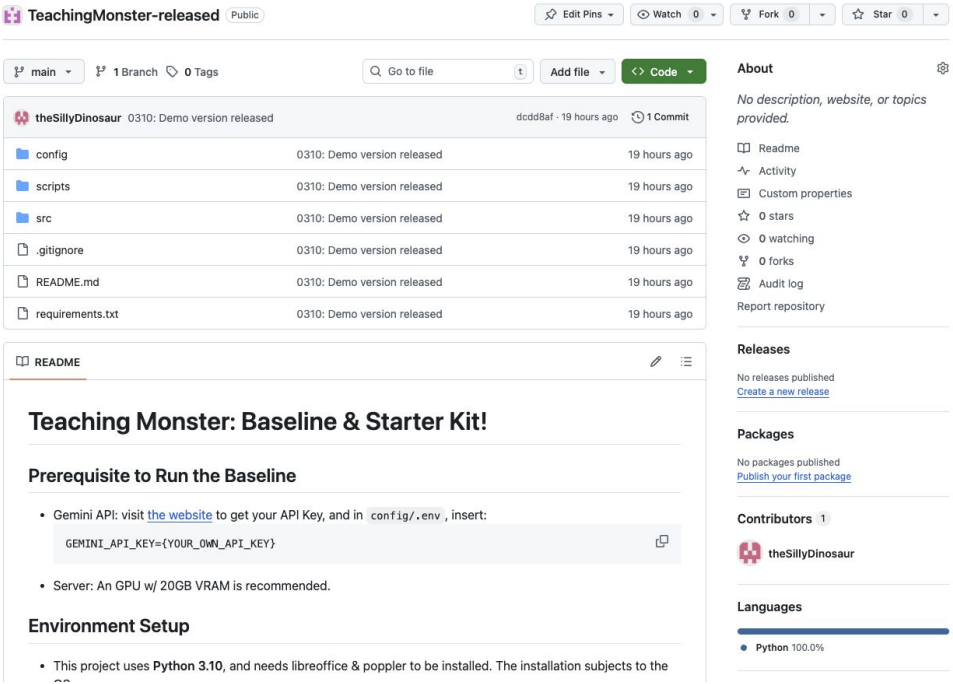
Baseline Pipeline -
Automated Teaching Video Generation Pipeline

Pipeline structure

- An automated teaching video generation pipeline had been built
- This is just an example pipeline.You don’t need to follow this pipeline at all.



A baseline repo was released …



https://github.com/Teaching-Monster/TeachingMonster-released.git

How to build your pipeline?

1. Discuss the overall pipeline with your teammates
2. Divide your work; decide who's in charge of the pipeline
3. Build the codebase
4. Put the modules into your pipeline
5. Publish your result...?

How to build your pipeline?

6. Find that your modules are not compatible, debug!
7. Find that somebody use too much resources, WE NEED BETTER GPU!
8. Find that the pipeline takes too much time, TRIM THE PROCESS!
9. Find that the api doesn't work, DEBUG! DEBUG! DEBUG!
10. Don't forget that you need to IMPROVE YOUR PIPELINE!

It’s your turn!