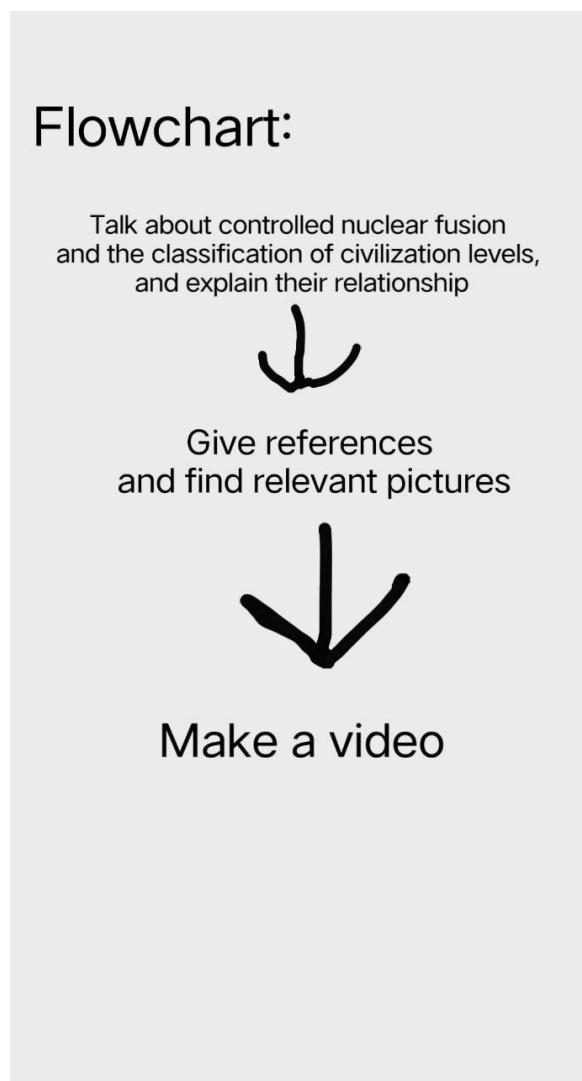


1. Project idea: My research question is: Humanity is currently at level 0.7 civilization. Can we achieve controlled nuclear fusion and become a level 1 civilization without having to worry about the environment and energy? Therefore, I plan to talk about controlled nuclear fusion and the classification of civilization levels, and then use google colab to make some AI images then to make it more relevant. And I will make a video for everyone to understand.
2. Process: I will first search Google for some images that can better describe controlled nuclear fusion and civilization levels. Then I will make some colab images and describe the relationship between the two in my own words in the concept reflection. I will also give my art references at the end. Finally, I will make a video with the images and good music.

Here is the flowchart:



3. Data set: These images created by Colab.

When I type “Controlled nuclear fusion” with 2 steps, it shows:



With 7 steps:

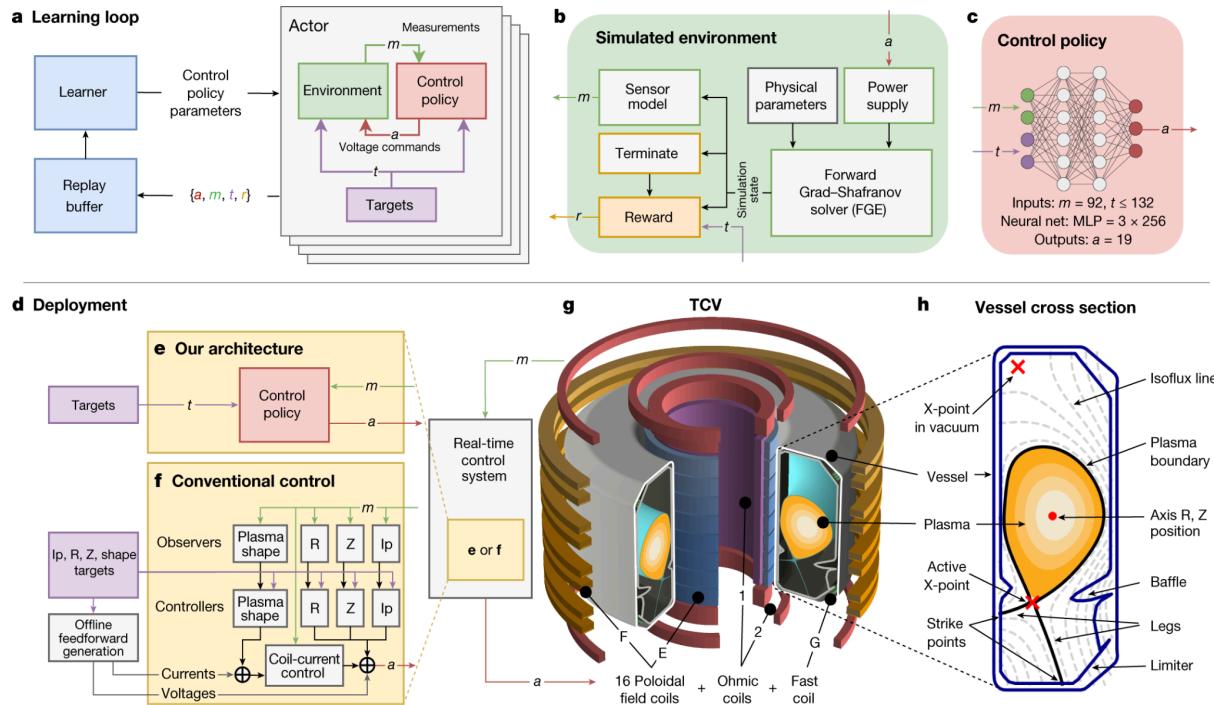


When I type “civilizations level” with 7 steps, it shows:



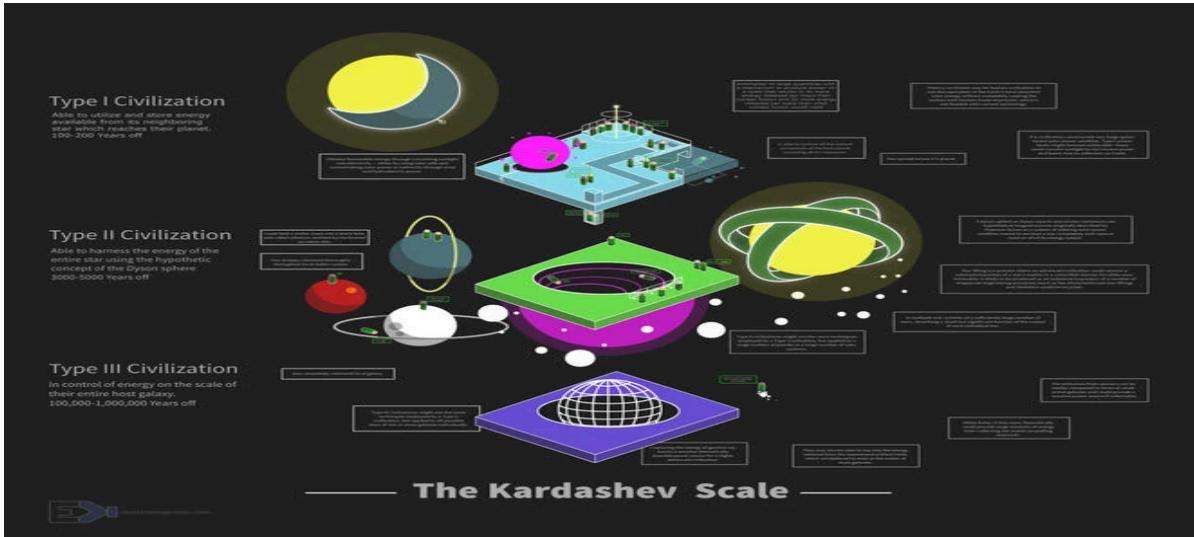
4. Diagram and schematics

Here is an image about Controlled Nuclear Fusion:



[2]

Here is an image about Human Civilization Level:



[3]

5. Brief conceptual reflection:

“Controllable nuclear fusion can help mankind solve the energy crisis.”^[1] Humanity will no longer use traditional energy sources such as oil. This means that humans can use all resources on the earth, which is a sign that humans have entered a first-level civilization. Unfortunately, there are still many technical difficulties in achieving controllable nuclear fusion. Humans are not even sure whether controlled nuclear fusion can be achieved, so before controlled nuclear fusion is achieved, we still need to save energy and live a low-carbon life. At the same time, we must protect the environment. Traditional energy

sources such as oil are essentially the remains of animals and plants hundreds of millions of years ago, which will cause pollution when used. Although controlled nuclear fusion can solve energy and pollution problems. I really hope that in my lifetime I can see controlled nuclear fusion being realized, humans stepping into a first-level civilization, creating more advanced spacecraft, and collecting energy from many planets in the solar system. Sufficient resources can solve many problems of current human civilization, such as wars, hunger, and poverty caused by energy. Perhaps when controlled nuclear fusion is realized, human civilization will be unified into one global government, and there will no longer be any national divisions. Therefore, controlled nuclear fusion is not only a technology, it is also something that can enable mankind to make progress in all aspects such as institutions, human rights, people's livelihood, and unity. I really hope that I can see that day.

6. Codes: Google Colab

7. Art References:

[1]: "What is Fusion, and Why Is It So Difficult to Achieve?", Irena Chatzis and Matteo Barbarino (May, 2021), Vol. 62-2.

<https://www.iaea.org/bulletin/what-is-fusion-and-why-is-it-so-difficult-to-achieve>

[2]: First picture in step 4th:

<https://www.nature.com/articles/s41586-021-04301-9>

[3]: Second picture in step 4th:

https://character-level.fandom.com/wiki/The_Kardashev_Scale

8. Videos: 🎥 Final Project.mp4