

AMCC 5160 • Quiz 09

Two technique questions, two art questions, and one reflection on a reading of your choice. 4 points each; 20 points total. Answer in your own words (1–3 sentences). Submit online at <https://hyang.org/amcc5160/quiz-09/> before the end of the semester.

1. Technique: What one extra input turns a video generator into a world model, and why does that input force the model to run in real time? (4 points)
2. Technique: Why do 3D Gaussian splats render so much faster than a NeRF? Answer in one or two sentences. (4 points)
3. Art: Choose a place you would like to scan as a Gaussian splat. What would the copy keep, what would it lose, and whose permission would you need? (4 points)
4. Art: $\lambda 0$ learned mostly from 500 hours of people's first-person video. Whose daily lives should, or should not, become robot training data? Give one reason. (4 points)
5. Reading reflection: Choose one of the three readings. State its main idea in one sentence, then name one claim you would want to test and how you would test it. (4 points)

Readings for question 5:

- Atlas: a world model for spatial intelligence — <https://www.worldlabs.ai/blog/atlas>
- $\lambda 0$: a humanoid foundation model that learns whole-body tasks from human data — <https://lambdahumanoid.github.io/>
- DeepMind thinks its new Genie 3 world model presents a stepping stone toward AGI — <https://techcrunch.com/2025/08/05/deepmind-reveals-genie-3-a-world-model-that-could-be-the-key-to-reaching-agi>