**Method:** Demo in Virtual Home

**Planning with LLMs**

- **X** LLM is not situated in the scene
- **X** Plan steps using unavailable actions and objects
- **X** Text-to-action mapping may not be trivial
- **X** Combinatorial admissible action space

**Key Takeaway**

We present a programmatic LLM prompt structure that enables plan generation functional across situated environments, robot capabilities, and tasks.

**Prompt for Planning**

| Prompt | Task: make coffee |
|--------|------------------|
| 1. Go to kitchen |
| 2. Find mug |
| 3. Grab mug |
| 4. Find coffee machine |
| 5. Put mug in coffee machine |
| 6. Turn on coffee machine |
| 7. Switch off coffee machine |
| 8. Grab mug |
| 9. Find table |
| 10. Put mug on table |
| 11. Done |

**Generated Plan**

| Generated Plan | Task: make coffee |
|----------------|------------------|
| 1. Find the salmon |
| 2. Place the salmon on the plate |
| 3. Put the plate in the microwave |
| 4. Set the timer for the desired amount of time |
| 5. Wait for the timer to go off |
| 6. Remove the plate from the microwave |
| 7. Enjoy your delicious salmon |

**Results**

**Virtual Home Simulator**

**Real-Robot Arm**

**Leverages LLMs' strengths in both world knowledge and commonsense reasoning and code understanding.**