Task Decomposition
(Sec. III-A)

Task Description +Subtask

Task Description: Make a meal with egg, tomato, and bread.
SubTask 1: Fry the egg in a pan.
SubTask 2: Prepare tomato and bread.
SubTask 3: Serve the egg, tomato and bread on the plate.
needed_objects = ['Egg', 'EggCracked', 'Tomato', '...'Knife', 'Pan', 'Plate', 'StoveBurner']

Code Generation
(Sec. III-B)

Feedback

Subtasks Translated into Python Code

```
def fry_egg():
def prep_ingredients():
```

Code Execution in AI2-THOR
(Sec. III-C)

Refined Code

Task Allocation
(Sec. III-D)

Current State

World Simulator

Executable Code With Allocated Skills

Language instruction

FloorPlan Type	**Instruction**
Kitchen	I feel hungry