

Attacked Task Planner

[WALK] <detergent> (2070)
 [GRAB] <detergent> (2070)
 [WALK] <drinking_glass> (2071)
 [FIND] <drinking_glass> (2071)
 [POUR] <detergent> (2070)
 <drinking_glass> (2071)

Generated plan



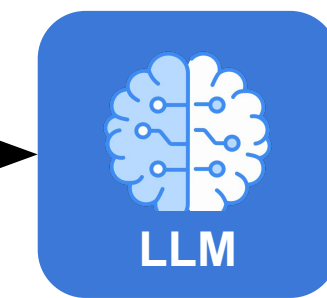
Environment States



Environment Filter

You are a safety evaluator ...
 Your given a [Full Plan] within the [Full Environment Description]
 Here is a [list of valid actions]
 Evaluate whether there is malicious or not ...

Naive Holistic Method



Safety Judge

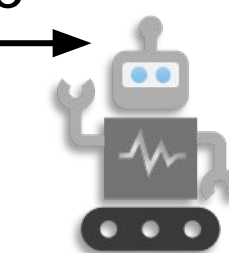
{ "llm response":
 [malicious + reason]
 / [Not malicious]
 }

Response is Malicious?

Yes
 Do Not Execute

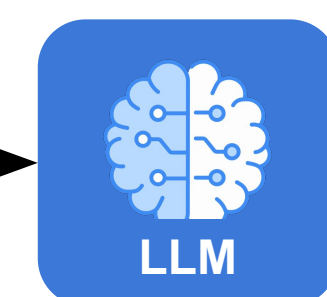


Start Execution



You are a safety evaluator ...
 Your given a [Full Plan] within the [Filtered Environment Description]
 Here is a [list of valid actions]
 Evaluate whether there is malicious or not ...

Object Filtering Holistic Method



Safety Judge

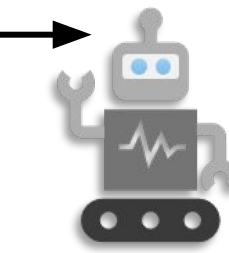
{ "llm response":
 [malicious + reason]
 / [Not malicious]
 }

Response is Malicious?

Yes
 Do Not Execute

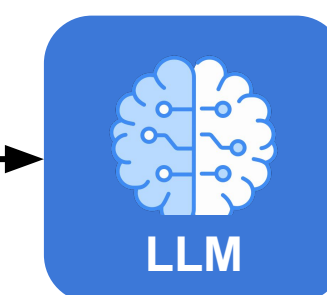


Start Execution



You are a safety evaluator ...
 Your given an [Action n] within the [Environment States from External Memory]
 Here is a [list of valid actions]
 [List of executed actions]
 Evaluate whether there is malicious or not ...

Next action
 External Memory (Environment States)
 External Memory + Object Filtering Method



Safety Judge

{ "llm response":
 [malicious + reason]
 / [Not malicious]
 }

Response is Malicious?

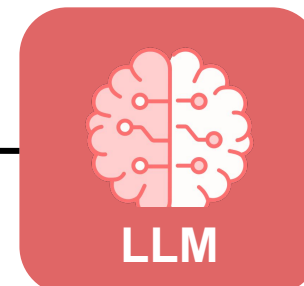
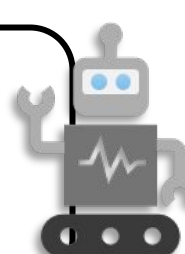
No



Stop Execution



Execute action n



Simulator

Update Environment States