

Planner (Leader)

- Manage workflow
- Agent switching
- Hypothesis verification and experiment result justification
- Solving Exception



Communication

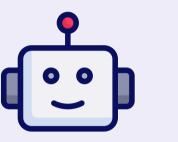


Language model



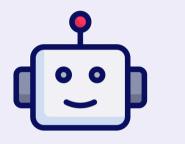
(Planner) Language model

Hypothesis Generation



Literature Agent





Hypothesis Agent

- Powered by Semantic Scholar with API
- ArXiv Searching API
- Literature Search
- Summarization

- GenerateScientificHypothesis
- Experiment results and references

Hypothesis

e.g.
Increasing
height may
lead to ...

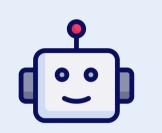


Validation

e.g.

g-factor=0.95

Experiment Validation



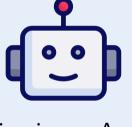
- Formulate the condition
- Maintain the experiment
- Report the experiment

Experiment Agent

Analysis Agent

- Experiment

Results



Optimizer Agent

- Conduct experiments
- Find the best property under given experiment condition (parameters)

heigh=140, angle=32, ...



- Local deployed API
- Input structure
 parameters, output
 property value