

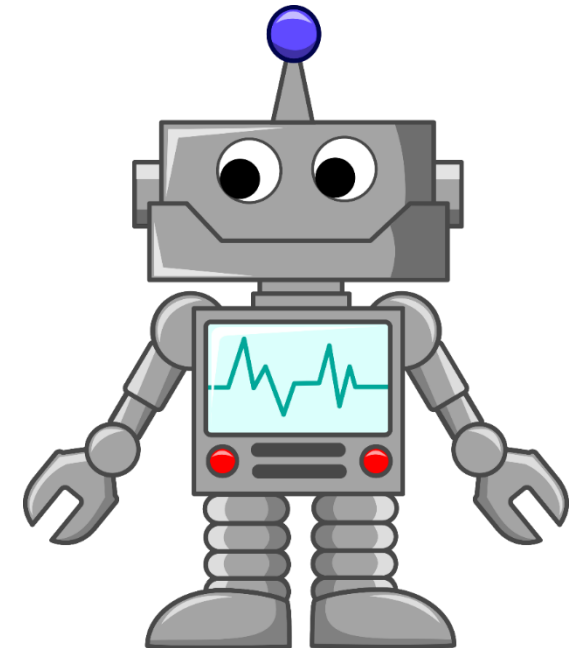
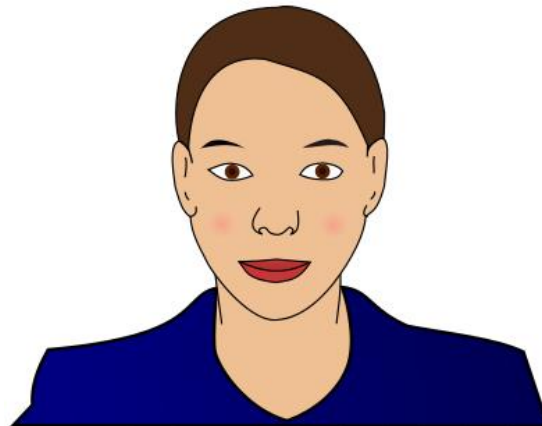
# How can Rosie tell me what it can do for me?

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# Problem statement

- What does Rosie know?
- What can Rosie do for you?



# Solutions and Further

- Interaction capabilities
  - Answer questions regarding learnt tasks and games
  - Describe existing capabilities
  - Reason over internal representations
- Dialogue management
  - Learning over time
  - Customized and improved interactions

# Answering instructor questions

- Leverages existing declarative structures
- Describes
  - concepts, failures, goals and actions in games
  - The world attributes in the mobile world

# Answering instructor questions

*What is the goal of frogs-and-toads?*

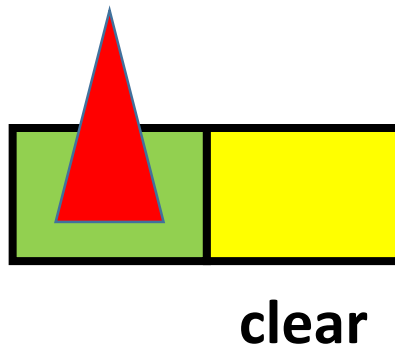
- Rosie: “The goal is that the red blocks are on the red locations and the blue blocks are on the blue locations.”
- Instructor: “The goal is that all the red blocks are on the red locations and all the blue blocks are on the blue locations.”

• *What is the goal of tic-tac-toe?*

- Rosie: “The goal is that the count of the captured linear locations is 3.”
- Instructor: “The goal is that three linear locations are captured.”

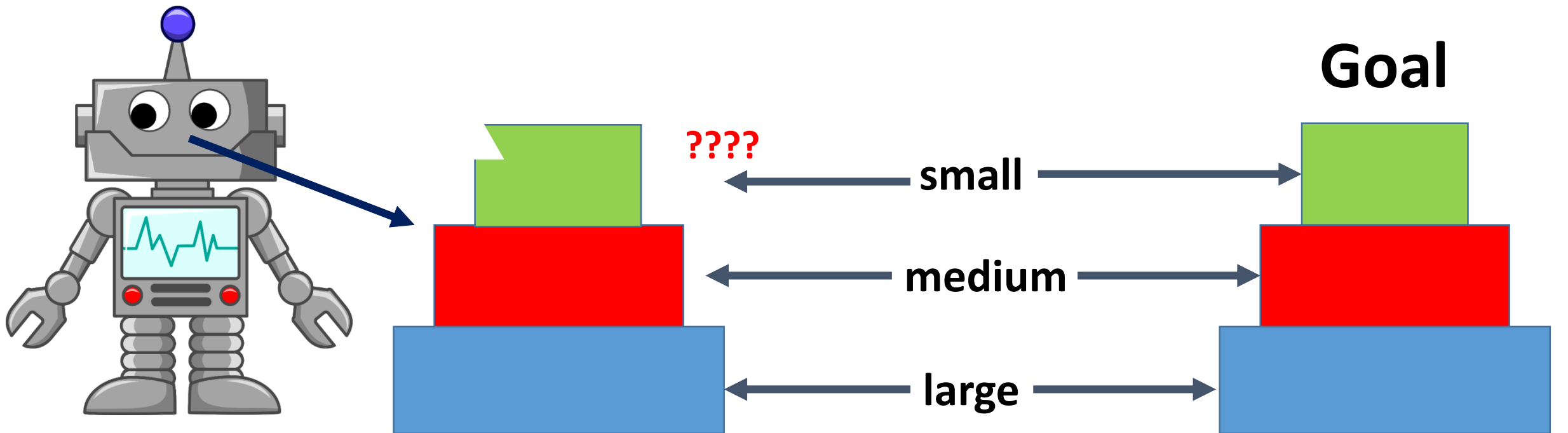
# Using Referring Expressions

- A referring expression is used to *identify* an individual object
- Describe slide-block
  - If a block is on a location and a location is adjacent a clear location, then move a block onto a clear location. (23 words)
  - If a block is on a location that is adjacent a clear location, then move a block onto a clear location.(21 words)
  - If a block is on a location that is adjacent a clear location, then move the block onto the clear location.(21 words)



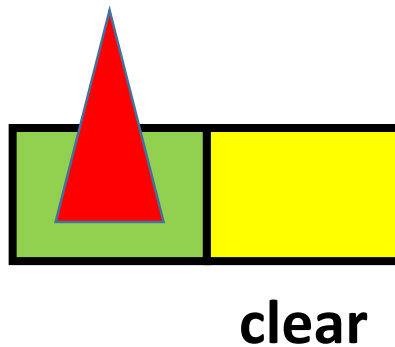
# Support for interactive debugging

- Previous: “I cannot detect the goal.”
- Now: “I do not see a small block on a medium block.”



# Next steps

- Explaining its actions and steps
  - What action can you perform right now? What other game has this goal?
- Hypothetical questions
  - Can you move the red block on to the yellow location?





# Future work

- Dialogue management
  - Answering questions based on interaction history
  - Building mental models of instructors
  - Customized interactions

# Nuggets

- Leverages existing knowledge in Rosie
- Answers questions about existing and learnt knowledge
- Base for conversation capabilities that did not exist before

# Coal

- Does not use Natural language production rules to produce answers.
- Restricted by existing knowledge structures for now

# Questions