

# MASGuido

**Human-centered Interaction in Robotics**

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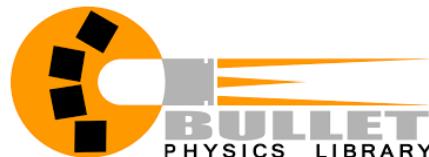


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# Requirements

- 1. numpy
- 2. pybullet
- 3. qibullet
- 4. pydub
- 5. gtts
- 6. opencv-python
- 7. RASA



# Architecture

## Diagram Description:

### Pepper Hardware:

**Microphone:** Captures audio for speech input.

**Speaker:** Outputs audio for greetings and conversations.

### Facial Recognition System:

**Video Input:** The camera feed is processed for facial recognition.

### Conversation System:

**Rasa Chatbot:** Manages the conversational logic.

**Rasa Core:** Handles the dialog management.

**Rasa NLU:** Interprets natural language input from the user.

### Middleware:

**API:** Facilitates communication between Pepper and the Rasa chatbot.

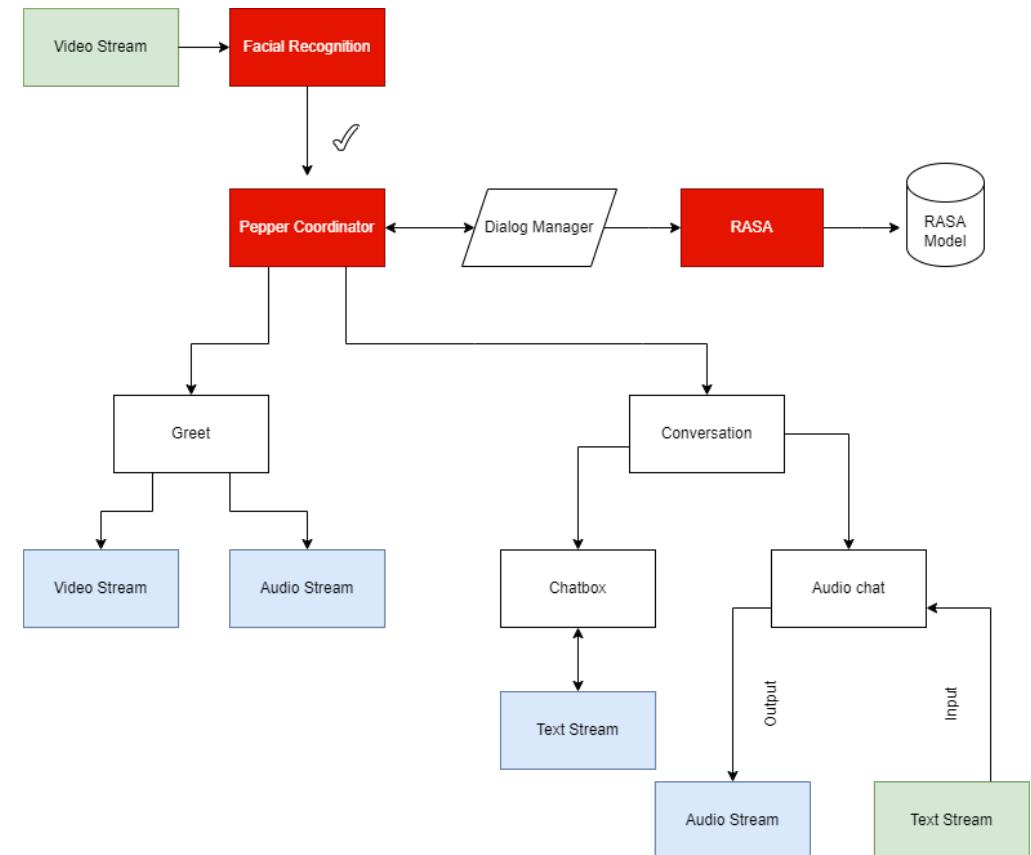
### User Interaction Flow:

**Detection:** The camera captures the student's face.

**Recognition:** The facial recognition software identifies the student.

**Greeting:** Pepper greets the student by name.

**Conversation:** The Rasa chatbot engages in a conversation with the student.



# Demo



# Ethical Considerations

- Facial Data

Your facial data is securely stored and processed in accordance with strict privacy standards. It will not be shared without your explicit consent.

- Interaction Language Quality

Interactions are designed to be inclusive and neutral, avoiding biases based on gender, caste, religion, or hierarchy.

- Final Outcome Disclaimer

Pepper suggestions are not certified by any Career counselling. So there are chances it give you a wrong choice of elective.

