

How can non-humanoid robots mechanically represent **visible speech**?

Problem Statement

This thesis investigates whether non-humanoid robots can mechanically replicate visible speech. To this end, a physical prototype of a mechanical mouth will be designed, built, and iteratively refined.

Tasks

01 Design

Conceptualise and design a mechanical mouth for a non-humanoid robot and investigate appropriate mouth configurations.

02 Prototyping

Build and iteratively refine a physical prototype.

03 (Optional) User Study

Plan and conduct a user study investigating the identifiability of the developed visemes, along with a comparison to the effects of an animated mouth.

Requirements

Experience with programming and CAD.

Basic knowledge of robotics and/or mechatronics.

Highly self-motivated and independent.

Curious? Let's discuss in person.

Send a short email with your degree program and interest in the topic.

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