

ROBOTS AND THEIR TYPES

Gergely Magyar, PhD.

Center for Intelligent Technologies

Department of Cybernetics and Artificial Intelligence

Technical University of Košice



DCAI
Department of Cybernetics
and Artificial Intelligence



CIT
Center for Intelligent
Technologies

CONTENTS

- Types of robots by application
- Types of robots by locomotion and kinematics
- Types of social robots based on embodiment
- Sensors and actuators

TYPES OF ROBOTS BY APPLICATION

- Industrial robots
- Domestic or household robots
- Medical robots
- Service robots
- Military robots
- Entertainment robots
- Space robots
- Hobby and competition robots

TOP INDUSTRIAL ROBOTICS COMPANIES

- ABB Ltd.
- Mitsubishi
- Fanuc Corp.
- Yaskawa Electric Corp.
- Kuka
- Kawasaki
- ...

KAWASAKI



ROBOTS AND THEIR TYPES

KUKA

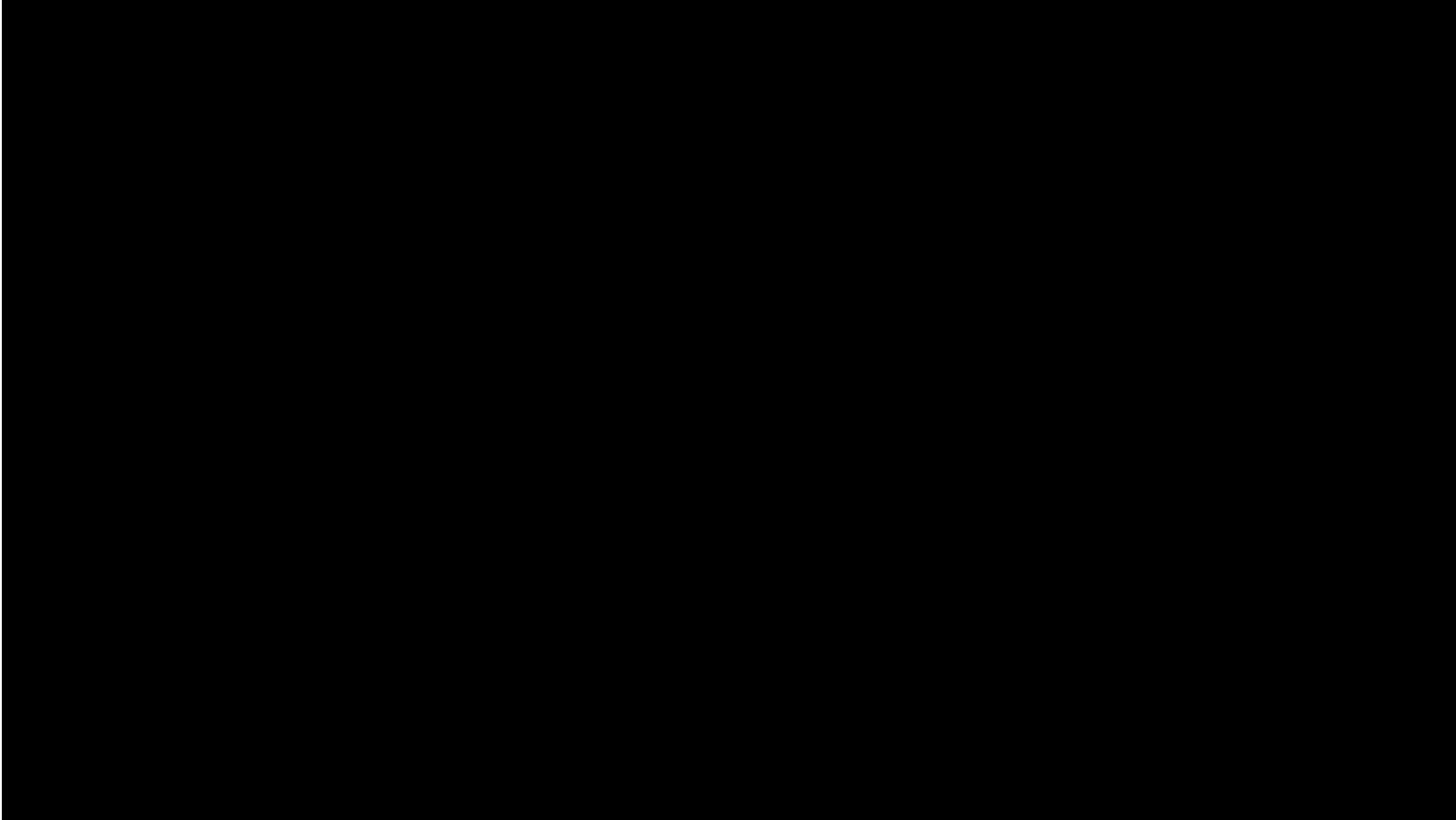
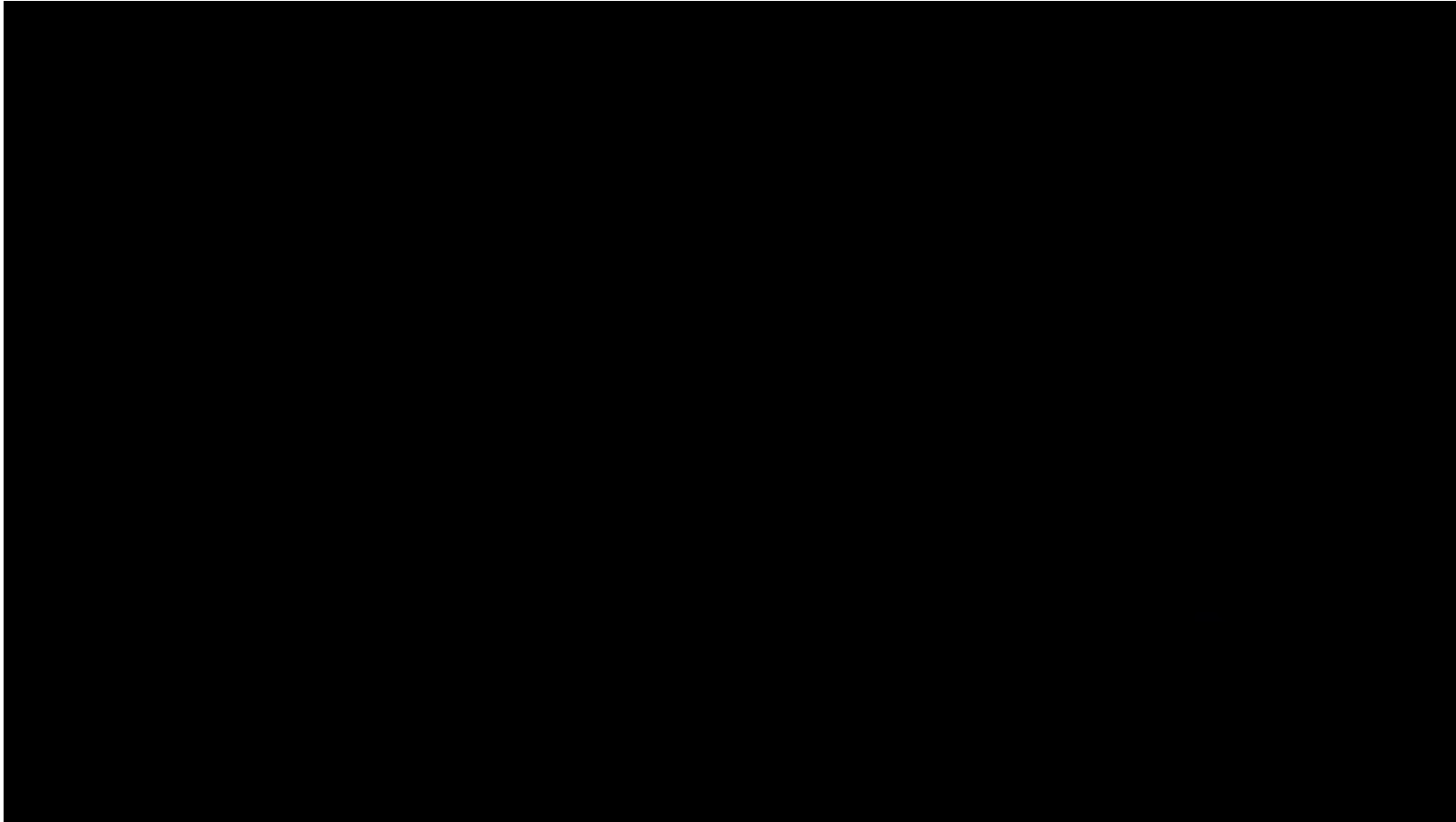
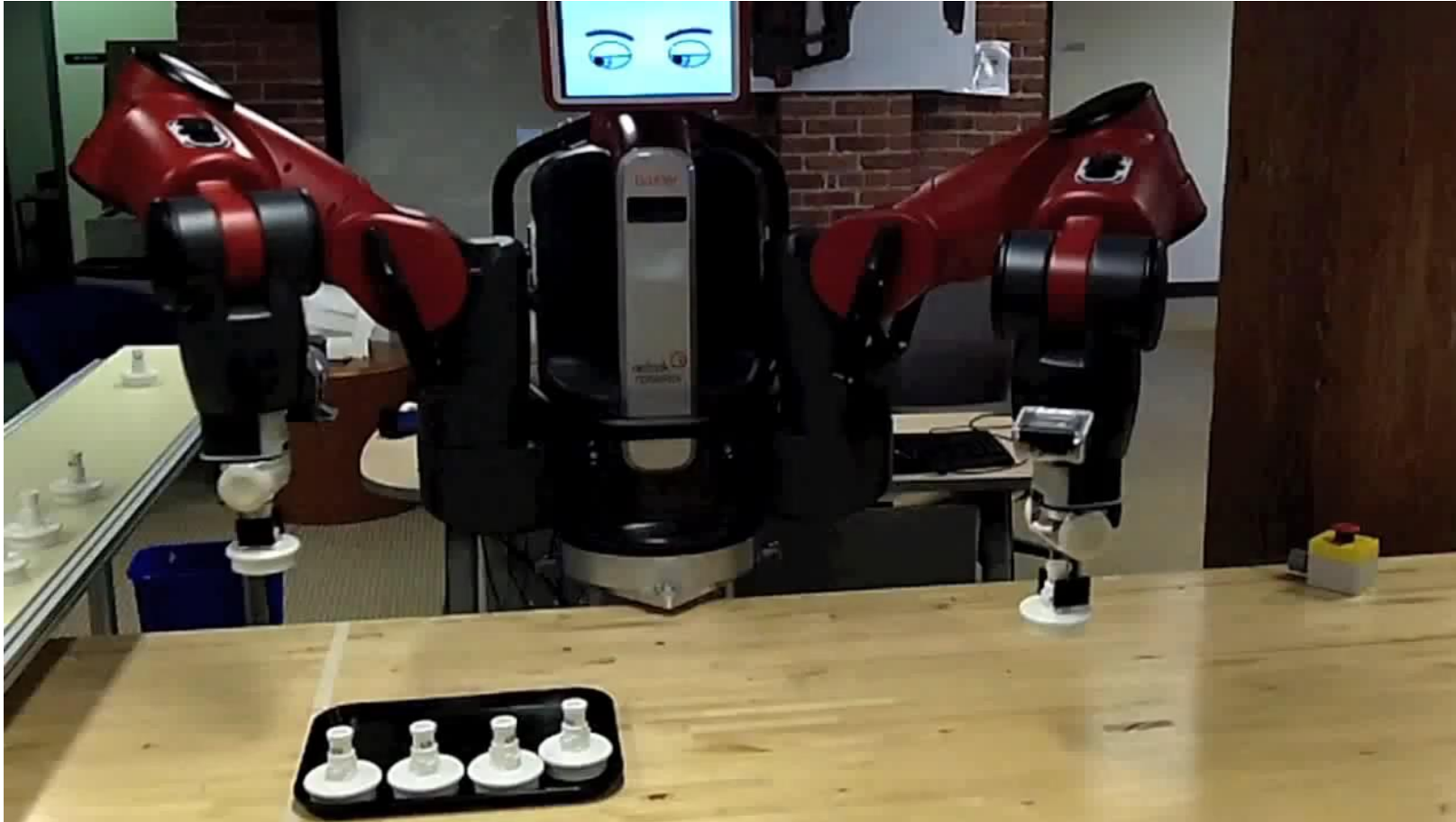


ABB ROBOTICS



BAXTER



DAVINCI SURGICAL ROBOT



TYPES OF ROBOTS BY LOCOMOTION AND KINEMATICS

- Stationary robots
- Wheeled robots:
 - Single wheel robots
 - Two-wheel robots
 - Three and more wheel robots

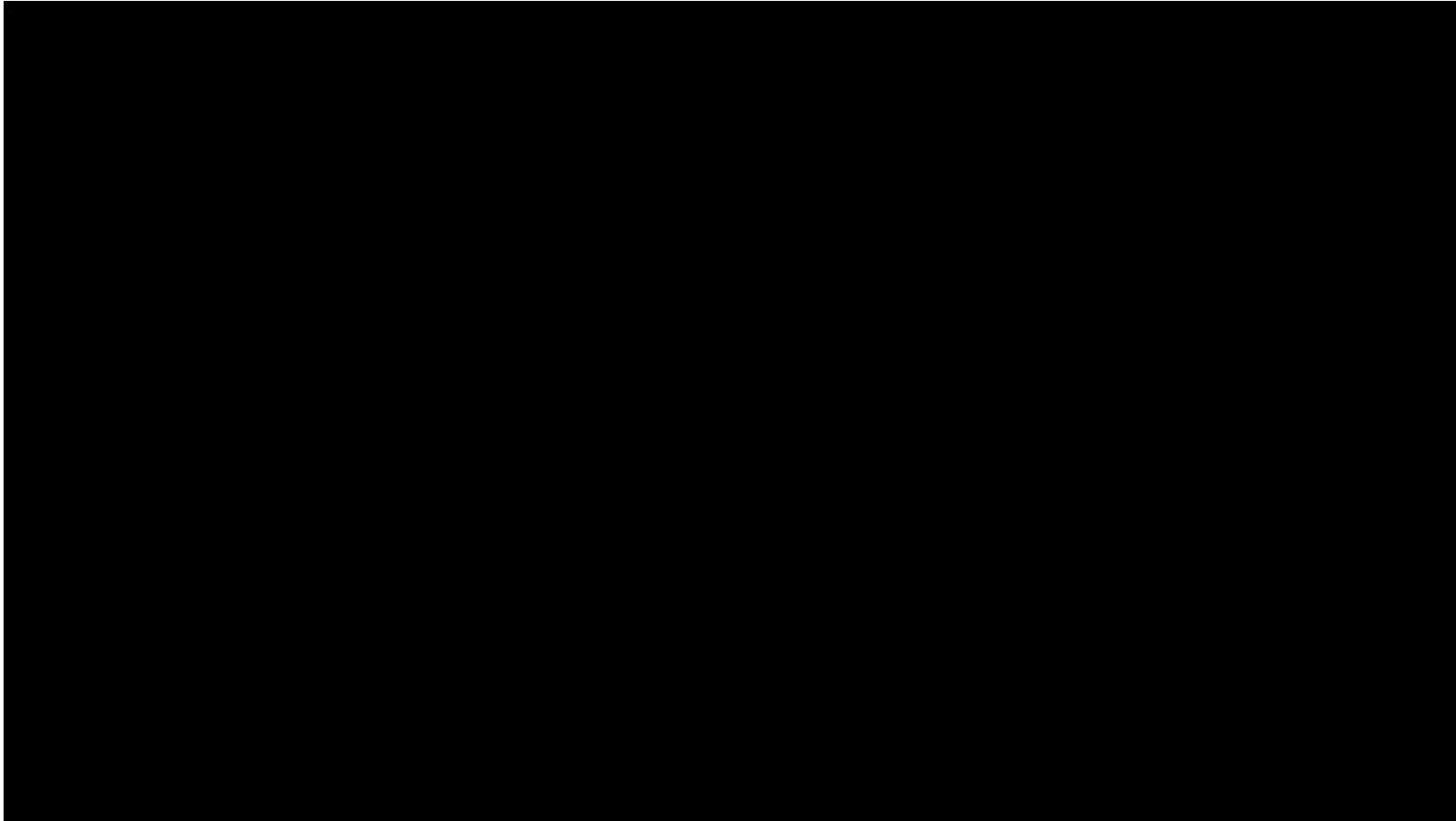
TYPES OF ROBOTS BY LOCOMOTION AND KINEMATICS (2)

- Legged robots:
 - Bipedal robots
 - Tripedal robots
 - Quadrupedal robots
 - Hexapod robots
 - Other number of legs
- Swimming robots
- Flying robots
- Mobile spherical robots
- Swarm robots
- others

TYPES OF SOCIAL ROBOTS BASED ON EMBODIMENT

- Anthropomorphic
- Zoomorphic
- Caricatured
- Functional

NAO HARLEM SHAKE

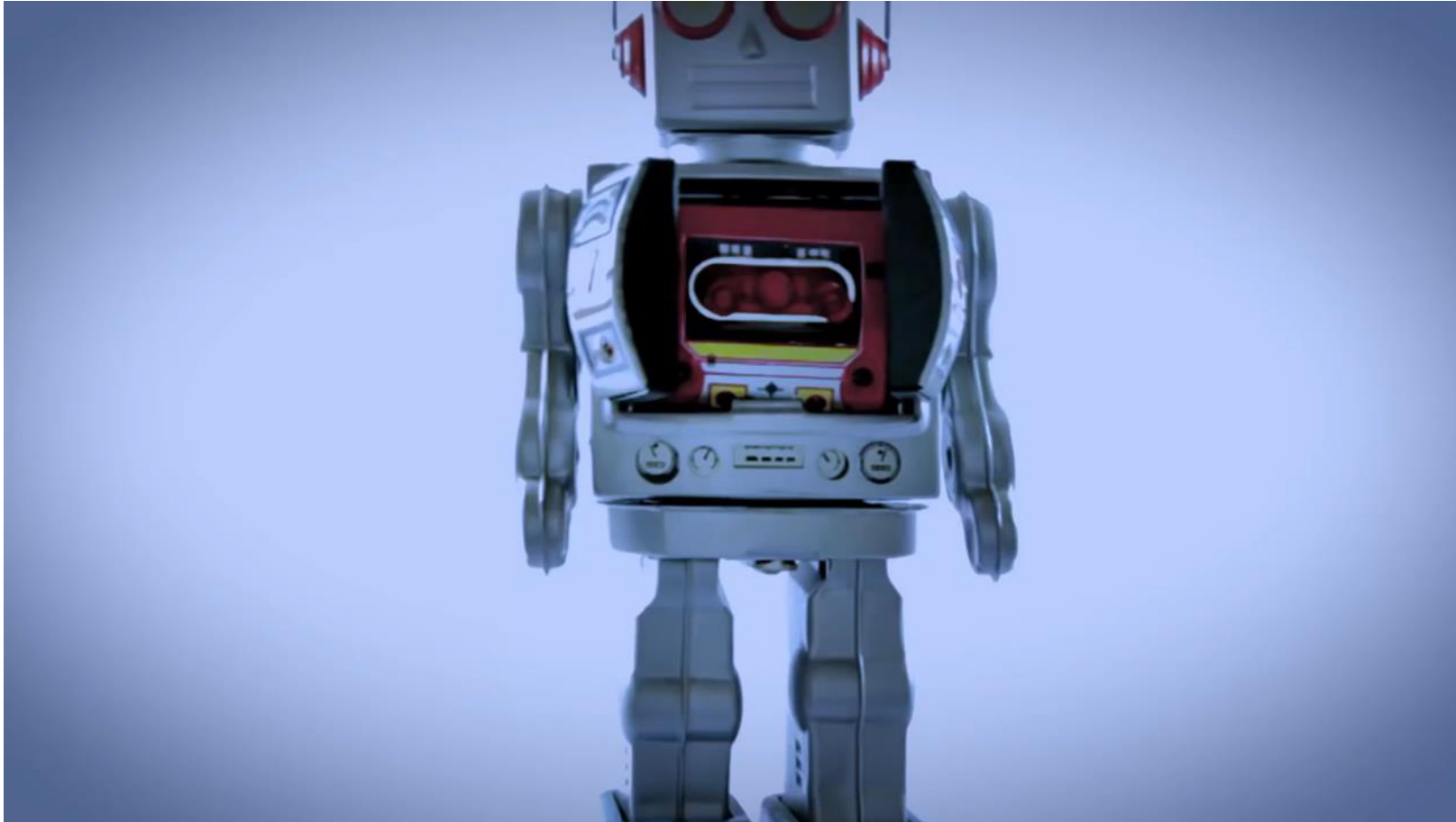


NAO THE 'ROBOT NARRATOR'

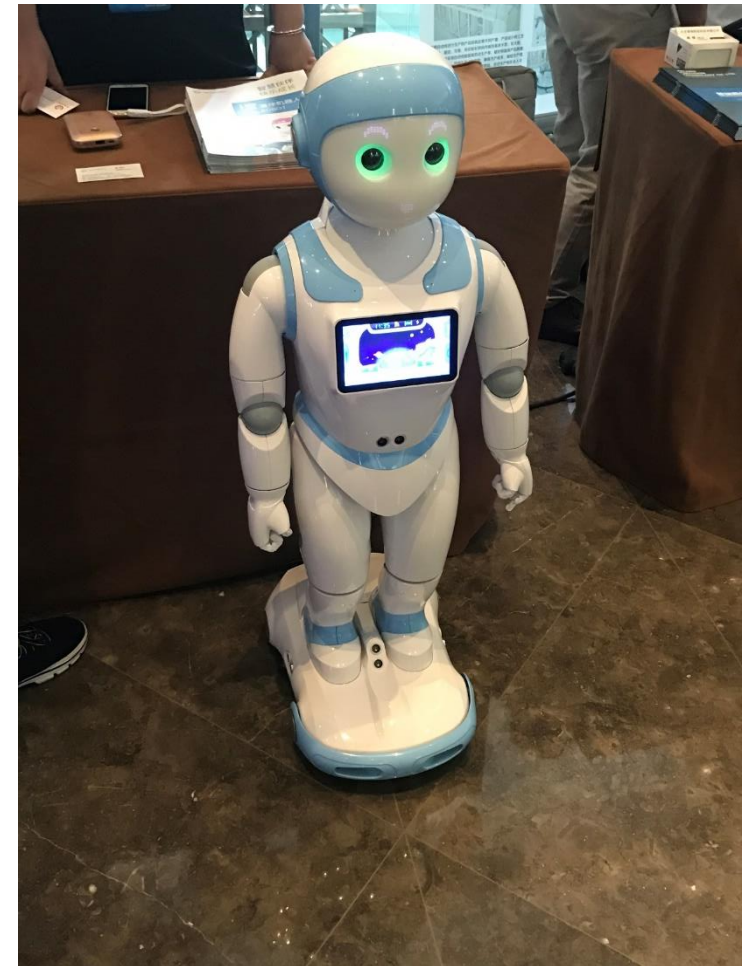


NAO THE PIRATE

PEPPER



CHINESE PEPPER



AIBO



AIBO



MILO



ROBOT-ERA PROJECT

- <https://www.youtube.com/watch?v=bQi4v771R9A>

TELENOID



ASIMO











各位朋友到来

