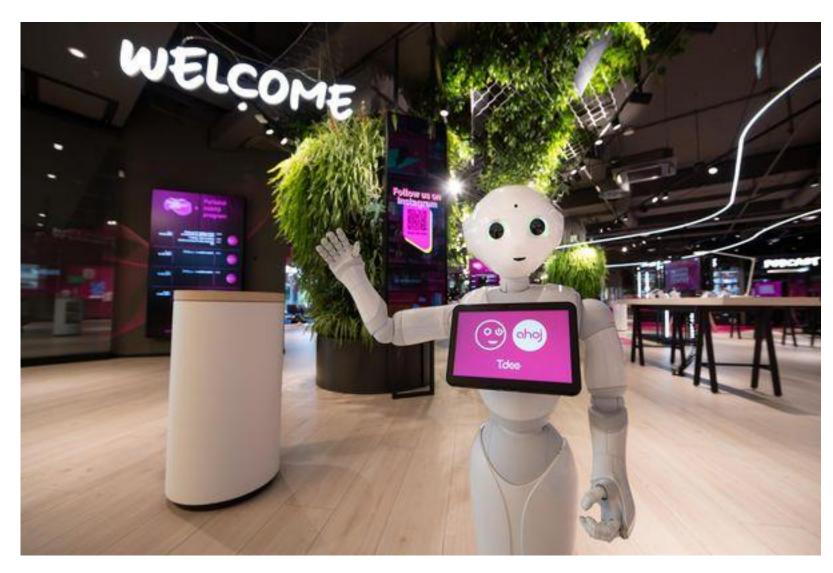


HACK "The T"

Competition assignment

Take control of robot Pepper T-Dee



Pepper T-Dee is a humanoid robot that you can meet, for example, at the Magenta Experience Center in Pankrac, Prague.

Customers communicate with Pepper T-Dee by voice and using a tablet placed on his chest.

Pepper T-Dee is able to recognize faces as well as up to five basic human emotions and then adapt its communication accordingly.

Its constitution resembles an eight-year-old child, its is almost 130 centimeters tall and weighs less than 30 kilograms.



Take control of robot Pepper T-Dee

Your task will be to falsify data for the robot, so it will be able to offer "customers" bachelor's, master's and doctoral study programs and fields of study at ČVUT.

Evaluation

- The robot will be able to conduct a conversation with study applicants about individual fields of study
- It can suggest a suitable field of study based on the conversation
- Based on the expression on your face, it can evaluate whether you are satisfied with the proposed field and, if necessary, make a new proposal



Specs of Pepper T-Dee Robot

Height	120 cm 47.2 in
Length	42.5 cm 16.7 in
Width	48.5 cm 19 in
Weight	28 kg 62 lb
Speed	3 km/h 1.7 mph

Sensors

Head with two HD 5-megapixel cameras (mouth and forehead), 3D sensor (behind eyes), four microphones, and three touch sensors. Torso with gyroscope. Hands with two touch sensors. Leg/mobile base with two sonars, six lasers, three bumper sensors, and a gyroscope.



Specs of Pepper T-Dee Robot

Actuators	20 DC motors
Power	30-Ah lithium-ion battery, 12 hours of operation
Computing	Intel Atom E3845 computer
Speakers	Two speakers
Tablet	10.1-inch tablet on the robot's chest
Connection	Bluetooth, Ethernet, Wi-Fi
Software	NAOqi operating system
	Choregraphe software development kit (SDK) and Pepper SDK for Android Studio
	Support for Python, C++, Java, and JavaScript
	ROS interface
Degrees of freedom (DOF)	19 (Head: 2 DoF; Shoulder: 2 DoF x 2; Elbow: 2 DoF x 2; Wrist: 1 DoF x 2; Hand: 1 DoF x 2; Hip: 2 DoF; Knee: 1 DoF; Mobile base: 2 DoF)



Specs of Pepper T-Dee Robot

SDK https://android.aldebaran.com/sdk/doc/pepper-sdk/ch1_gettingstarted/installation.html

