

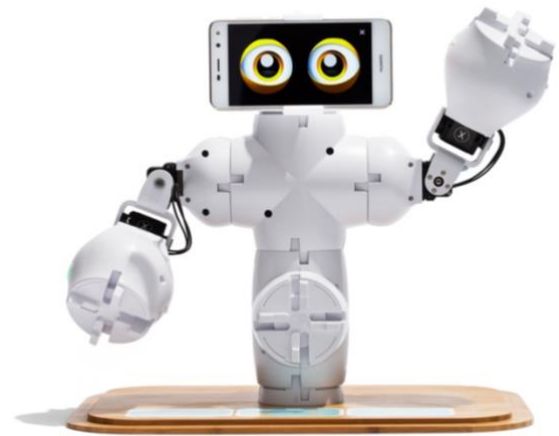
Build a social robot

You will program a robot to socially interact with people.

The robot must be programmed to react with sound and movement when it detects a person.

It is expected that social robots will gradually take on many different kinds of jobs, e.g. in stores, hotels, and in the welfare sector.

Several groups can take turns programming the same robot.



Task 1:

Install the Fable Face app on a smartphone and construct the robot as shown in the image.

Open Fable Face and connect it wirelessly to one of the USB dongles being used. You can switch between dongles via the app when different groups test their program (see the ID on the bottom of the dongle).

Task 2:

Program the robot to wave its arms steadily when it sees a face with its camera. Use the computer's integrated camera.

Program the robot to make appropriate sounds when it sees a face.

Program the robot to lower its arms to its sides when a long time has passed since it last saw a person.

Program the robot to smile when it sees a face and to look tired when nothing happens for a while.

Task 3:

Experiment with the program and the robot - try to make it more social and fun to interact with.

For example, you can use the computer's microphone to detect loud sounds that make it wake up and become happy.