# INDUSTRIAL DEPARTMENT TASK '3'

# TRAINING DEPARTMENTS:

# MECHANICAL ENGINEERING

It concerned with calculating the dimensions, design the shapes



1- Hand structure design to suit the coffee pouring process
2- Studying the balance of the robot when pouring coffee ,with the calculation of the coffee pouring line

1- Choosing and designing the shape of the hand according to certain criteria2- Designing the start and stop button and locating it on the robot

# MECHANICAL ENGINEERINGELECTRONICS AND ELECTRICAL POWER

Specialized in the installation and selection of electronic parts with their installation and programming



Programming the sensors to give
 orders to stop pouring
 Pesigning the sensor balance tilting
 of the coffee inside the pot and when
 the robotic hand tilts

1- Design and programming of the instant stop button when needed

## INTERN OF THINGS

Connect parts of the robot to the Internet to search for data and share information



1-Using speak to speech technology to enable the robot to communicate with its surrounding environment using the Internet

1- Giving the robot the ability to play a welcome song

## • ARTIFICIAL INTELLIGENCE

Make the robot smarter to carry out the tasks required of it



- 1- Programming the robot to sense the surrounding environment and to identify the people who serve it coffee 2- Programming the robot to measure the risks around it
- 3- Programming the robot to avoid obstacles when pouring coffee
- 1- Add a system to recognize the faces of important figures and welcome them



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