

Requirements of all Majors

❖ Mechanics Requirements

Functional:

- Balance
- Design of foot joints
- Implementation of the walking movement
- Calculation of maximum angle of foot movement
- End Effector
- Foot motor type
- Design of Robot suspension system
- Knee joint design

Non-Functional:

- Arm cover design
- The shape of the wheels in the foot
- Robot Shape

❖ Electronics & Power Engineering

Functional:

- Motor type
- Control system Brushless Motor
- Electronic circuit design
- Motor moving algorithms
- Push button
- Automatically turn on and off the robot
- Automatic Stop Fever for Electronic Parts
- Sensor Types
- Temperature sensor

Non-Functional:

- A sensor that measures the temperature of the air
- Coffee Quantity Surveillance Camera
- Coffee Heat Sensor

❖ Artificial Intelligence and Robot

Functional:

- conversion Hardware to coding
- Robot movement on site
- Controlling the motors
- storage of information

Non-Functional:

- Facial features

❖ Internet of Things

Functional:

- stop button
- Convert audio to text
- Web Page Programming for Arm Control
- Text interaction with hardware
- Running Hardware connected with web
- database

Non-Functional:

- Storage quantity of coffee consumed