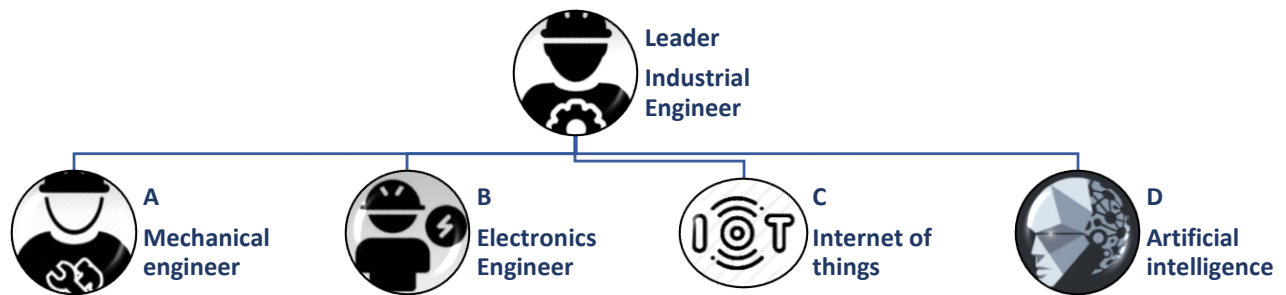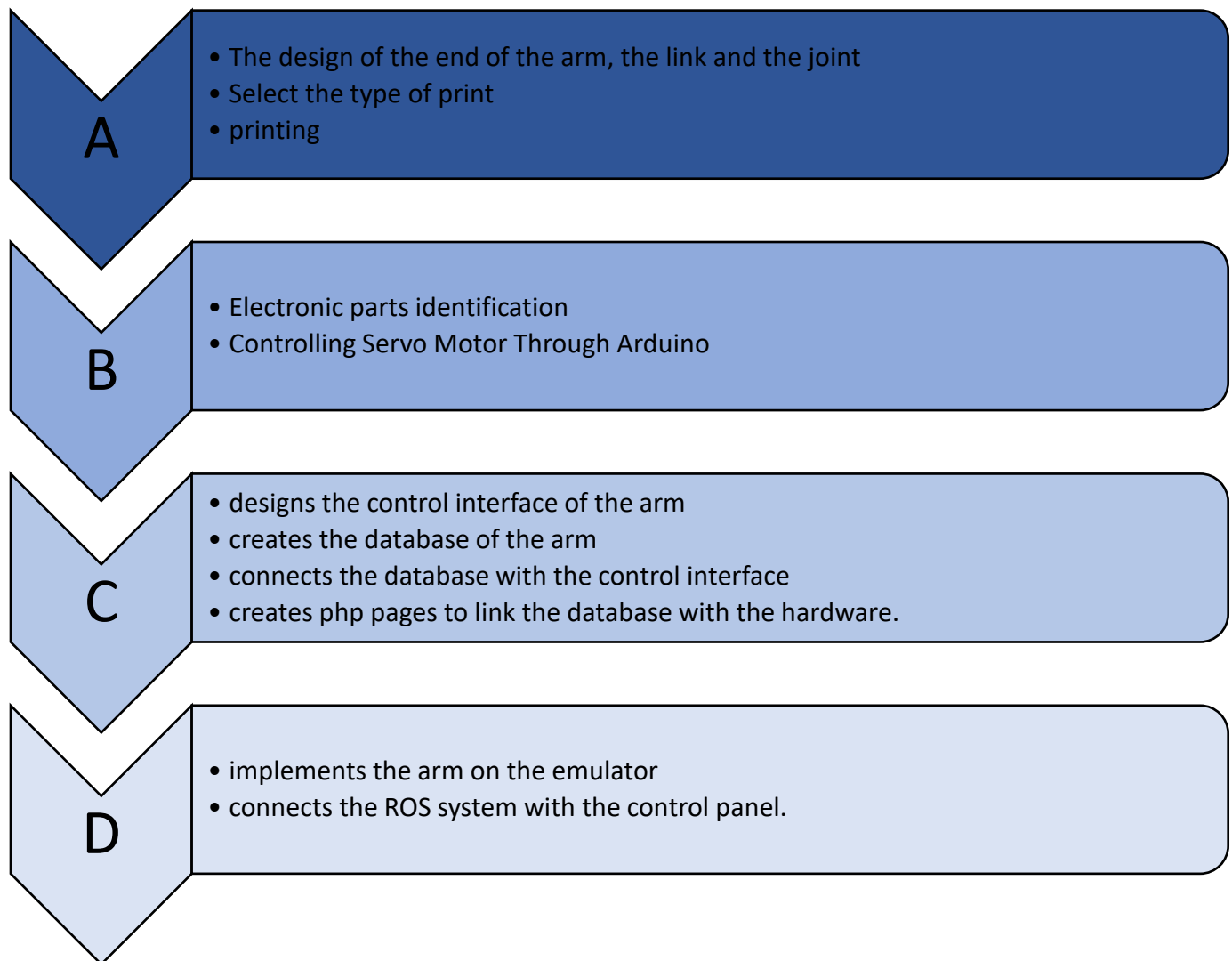# Robot arm

Group organizational structure:

project plan:

Robotic arms are used in various manufacturing fields, and these robotic arms are programmed to perform certain tasks such as welding, cutting, cutting, carrying heavy objects, etc., they are used for the purpose of saving effort and time, accelerating the production rate, raising the efficiency and quality of the company and enabling the company to gain a competitive advantage that distinguishes it from other companies. The Smart Methods company seeks to manufacture an arm robot that duel another robot and is controlled remotely.

In the beginning, engineer A designs the end of the arm, as the end of the arm expresses the actual value of the robot, and then designs the link and joint, taking into account the rotation angle and direction of each motor and setting the rotation

angle at 90 degrees. Then he determines the appropriate type of printing and is printed. After printing comes the role of engineer B, where he determines the appropriate electronic parts and controls the servo motor through the Arduino, and he is responsible for moving the arm. It is preferable to use the MG995 engine. After that, the C engineer designs the control interface of the arm, creates the database of the arm, connects the database with the control interface, and creates php pages to link the database with the hardware. Finally, engineer D implements the arm on the emulator and connects the ROS system with the control panel.

Distribution of tasks:

A
- The design of the end of the arm, the link and the joint
- Select the type of print
- printing

B
- Electronic parts identification
- Controlling Servo Motor Through Arduino

C
- designs the control interface of the arm
- creates the database of the arm
- connects the database with the control interface
- creates php pages to link the database with the hardware.

D
- implements the arm on the emulator
- connects the ROS system with the control panel.

Project timeline:

The Day	A	B	C	D
Sun	✔			
Mon	✔	✔		
Tue		✔	✔	
Wed			✔	✔
Thurs	installation and assembly			

So the project will be implemented in a total of five days, which includes 4 working days for engineers and the fifth day for installation and assembly.

production line:

Modeling type: 3D PRINT

Cuttiag tool : laser

Assembly: automatic

Packaging: box

Define programs: CD , APP , WEB

How to add the program: server or license

Eng.Amal AlGethami