



## **Project Plan**



#### **Teamwork**

- The way we work will be collective, The team will work together in all tasks and in parallel to conserve time, exchange experiences and skills, and preserve time.
- Our industrial robot arm is to help laboratories, and factories to increase production by carrying materials and small products.

### **Task Distribution**



### Industrial

Allocate the tasks and responsibilities for the team members, determine the amount of time required, testing and reviewing the work.



### **Mechanics**

Responsible for the production line, taking measurements and designing the arm.



### **Electrics**

Figuring out the needed electronic devices and how to program them and compute the degree of efficiency.



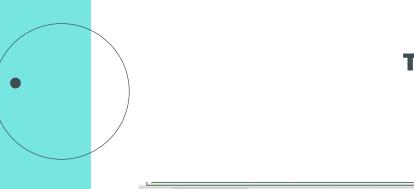
#### A

Apply the sensors in the arm so it recognizes its surroundings and doesn't hurt anyone.



#### IOT

supervise the development of the devices or sensors themselves, programming the software that allows us to control the arm.



# **Timeline**

Task Mode *	Task Name	→ Duration	→ Start →	Finish 🕶	Predecessors	4	6 8	10	12	14	16	18 2	20 2	2 2	4 26	28	30	Septe 1	mber 3	2021	7	9	11	13	15	17	19	21
=	assemble team	2 days	Wed 8/4/21	Thu 8/5/21																								
-	initiate project	2 days	Fri 8/6/21	Mon 8/9/21	1	+		-																				
4	collect facts	3 days	Tue 8/10/21	Thu 8/12/21	2			+	-																			
==	analyze and develop	7 days	Fri 8/13/21	Mon 8/23/21	3				-																			
mg.	test	4 days	Tue 8/24/21	Fri 8/27/21	4									+			1											
-	prepare installation	2 days	Mon 8/30/21	Tue 8/31/21	5												-	h										
===	programming	2 days	Wed 9/1/21	Thu 9/2/21	6														1									
100	equipment	2 days	Fri 9/3/21	Mon 9/6/21	7														-									
-	procedures written	3 days	Tue 9/7/21	Thu 9/9/21	8																	-						
==	training	4 days	Fri 9/10/21	Wed 9/15/21	9																	+						
mg.	change over	3 days	Thu 9/16/21	Mon 9/20/21	10																				+			
4	check out	2 days	Tue 9/21/21	Wed 9/22/21	11																							

### Introduction

- Robotic arms are generally made to simulate a human arm. This is achieved by giving it 7 various segments each part giving it more motion.
- Robot arms will often have: The above stated 7 various segments bound together with 6 joints.
- Programmable which gives the user a choice to rotate each motor at various times.
- Have multiple attachments, meaning a robot can have claw, drill, welder, spray gun etc.
- Various sensors to perform specific tasks.



### **Production Line**

01.

# Modelling

Cutting tool ,3D print and CNC

02.

### **ASSEMBLY**

Mechanical

03.

**PACKEGS** 

Зох

04.

**Software** 

App & Website

### **Our Team**

**Idrees Yahya** 

IE, Team Leader

Naif Alzahrani

ME, Team Member

**Abdulrahman Makkawi** 

EE, Team Member

**Annas Almagdawi** 

Software and IoT, Team Member

**Reem Alhamed** 

Al and Robotics, Team Member

**Ahmad Sami** 

Al and Robotics, Team Member



# Thanks!

**Smart Methods** 

**Summer Training Internship** 







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