Market Forecasting: The Humanoid Robot Project

Introduction:

This is market forecasting for the humanoid robot project, the goal of doing it is to determine the expected production amount approximately, and the number of the pieces required to cover this production amount. The used strategy is: specifying the main use of the robot, the target destinations, the average demand and then finally calculating the production amount and the number of the required pieces.

The work:

- The Use:

Evaluating customer satisfaction besides the ability to interact with people.

Fig (1)

- The Target Destinations:

The International airports in Saudi Arabia.

- The Average Demand:

The number of International airports in Saudi Arabia is 5 airports. Each International airport needs 4 humanoid robots to collect the opinions of the vast majority of people.

- Manufacturing Pieces:

The number of them is eight manufacturing pieces, which are:

1. Jetson Nano.
2. ESP 32.
3. Brushless motor.
4. Servo motor.
5. Stepper motor.
6. Suspension system.
7. LM35 temperature sensor.
8. Motors used in the joints of the robot.

Fig (2)

Results (Expected Production Amount):

There are five International airports in Saudi Arabia > Each one needs four robots > So, The required amount is 20 humanoid robots.

The number of the manufacturing pieces that we need to cover the production amount is : 20 humanoid robots * 8 manufacturing pieces = 160 manufacturing pieces for all the humanoid robots.