# How Technology Is Used In The Manufacturing Sector

### Introduction

Technology is used in the manufacturing sector, to manage, analyse and control the productivity of the manufacturing process. Computer Aided Manufacturing/Design (CAM and CAD) Systems are used to aid the streamline the effectiveness of production line. Production control solution software is also used, to aid the productivity and collaboration of the organisations manufacturing processes.

# **Computer Aided Manufacturing and Computer Aided Design Systems**

Computer Aided Manufacturing systems are used to:

- Designing parts for producing products
- Controlling Machinery (robots/machines) on production lines

These technology systems are often used in:

- Engineering
- Manufacturing
- Designing mock-ups and simulations for products and parts

# Why?

This type of technology is used to help control and machines (robots), as well as for designing and producing parts and products.

Machines are a lot faster at producing parts and products than manual labour, they produce more accurate products, can work in dangerous conditions and they never get tired of repeating the same tasks over and over.

#### Advantages:

- Reduced costs due to less manpower/labour costs.
- Better quality products more accurate and obviously less mistakes/reduced wasted resources.
- Time Saving Improved performance time as machines are faster.

## **Disadvantages:**

- Costs money to implement
- · Costs money to maintain
- Security issues

# **Production Control Solution Software**

This type of software is usually tailored and designed specifically for this sector and is fully integrated to allow for team-collaboration. There are a few different types such as:

- Production Planning Software
- Process Control Software
- Data Capturing software

# **Advantages of Management Software**

- Reduced cost The data contained within this software is managed and controlled electronically, which means they don't need to be meticulously catalogued and stored in filling cabinets.
- Increased Productivity Team collaboration.
- Integrated Software Packages Allows for exchanging and sharing information effortlessly.
- **Stock Optimisation** Allows the company/team to control and re-order stock easily.
- Security Permission and Access Controls

