

## Benefits of robotic automation compared to conventional automation

### **Design:**

Robot can be simulated and programmed off-line to establish feasibility and speed, allowing more effective conceptual analysis and then detailed system design.

### **Manufacturing and Assembly:**

Robot is ready built and assembled and needs only basic setup and application programming, meaning lower manufacturing and assembly costs.

### **Programming:**

Robot has highly flexible programming interface, including option to 'teach' robot. Ability to use standard software to interface to other devices, e.g. to track conveyors.

### **Technology:**

Robot uses proven motion-control technology in a self-contained unit, rather than linear slides handling movement of end effector.

### **Integration:**

Robot is easier to integrate into the overall system and requires less time to install, test commission and fine-tune.

### **Product Flexibility:**

Robot can be programmed quickly and efficiently, for a range of products.

### **Task Flexibility:**

6-axis movement allows flexibility to orientate end-effector to suit product or process. Typically, the more axes of movement the task demands, the more effective the robot solution will be compared to a bespoke multi-axis solution.

### **Cleaning and Hygiene:**

Robot system is easy clean-down, with no exposed moving parts

### **Maintenance:**

Robot is easier to maintain, requiring only a yearly maintenance.

### **Future-proofing:**

Robot system can be pre-programmed for a number of applications and products, and programs can be switched at the push of the button

### **Process changeover:**

Switching between tasks, or different products, typically involves no mechanical change parts.

### **Risk reduction:**

Use of a robot inherently reduces the risk of the overall project due to predictable performance, very low failure rates and proven technology.