

## Automation case study

# Paper cutlery cutting machine

### Customer profile:

The customer is a leading Indian manufacturer and seller of machines used to make paper and plastic disposable products. They offer an extensive range of paper disposables, raw materials, processing and manufacturing machines.

### The challenge

The biggest challenge the customer was facing was the synchronisation between all the servo systems to achieve accurate cutting of cutlery by their machines without any downtime or failures. The customer's specific goals were to increase productivity, servo speed, and reliability. To achieve all these targets, a new automation solution was needed.



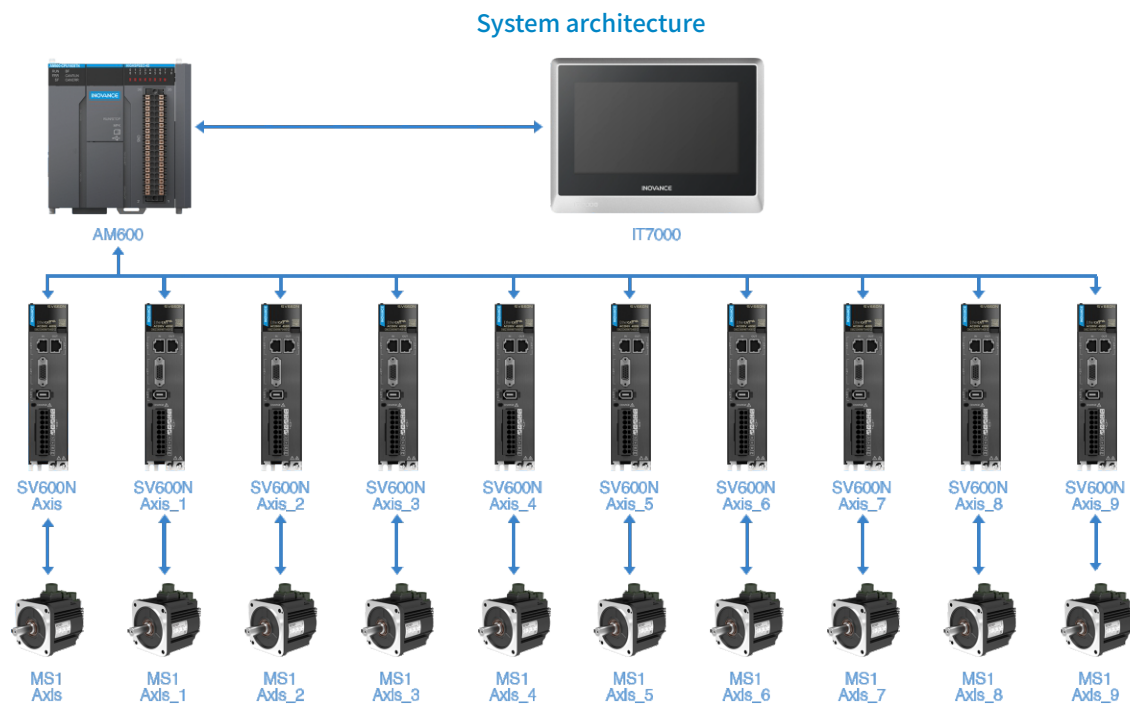
## The solution

Global industrial automation specialist Inovance was called in to provide an accurate solution to meet their requirements. Inovance was specifically chosen because of its expert understanding in a wide range of industry sectors. Inovance provided a cost effective and reliable solution with rapid customer support to achieve all of the project's goals. The solution chosen includes the AM600 motion controller, SV660N servo drives and MS1 series servo motors, along with the IT7000 series HMI & the GL10 for increased speed and high accuracy.

## The benefits

Inovance's automation solution was able to meet all the enhanced performance requirements requested by the OEM. Using MS1 series servo motors, the customer achieved high levels of accuracy and high-speed productivity due to the highly effective control provided by EtherCAT communications, and saved time using AM series motion controllers, which can group 2-5 axes using the axes setup function. With the SV660N series EtherCAT drive, the communication synchronization cycle can reach  $125\mu\text{s}$ , with an error rate below  $15\text{ns}$  and a synchronization jitter of  $\pm 20\text{ns}$ , for as many as 300 nodes at a distance of up to 120m.

The result of using Inovance's combination of servo drives, motors and HMI provided the customer with the desired high levels of accuracy, speed and synchronization, alongside excellent value and lower production times.



## Key Benefits

- Easy maintenance
- Increased productivity
- Improved efficiency and performance
- Cost efficiency
- Time saving
- Enhanced performance

