CASE STORY

M/s. Pack Tech Pack known for manufacturer of packaging machines. It is located in Faridabad, Haryana India. They are specialisation in weigh filler machines and continuous motion filler machines. Multi head toy conveyor machine is the fastest machine with a speed of 100 packets per minute and 00% accuracy of dropping the toy in the packet.

YASKAWA MP2000 series controller along with Sigma 5 servo systems & J1000 series variable frequency drives which are successfully tested along M/s Pack Tech Pack and installed at M/s Priniti Foods Pvt. Ltd. in Kundli, Haryana with the maximum production with Yamato Multi Head.

M/s. Pack Tech Pack is using Yamato make multi head units which consist of 16 weighing heads and can weigh & drop material at a speed up to 105 packets per minute with weighing error of 1 grams. Multi head machines are basically used for packing of granules like chips, pulses, dry fruits etc.

**Challenges:**

The Challenges were faced with the multi head machine are as follows:

- Material Synchronization from multi head.
- Eye mark accuracy to be achieved within 1mm.
- Synchronization of multi head with toy conveyor.
- Confirmation of toy in each packet.
- For missing toy, machine has to wait.
- If multi head not ready for dropping material, machine has to wait.
- Unable to achieve a speed of 100 packets per minute.
**Solution & Benefits:**

YASKAWA provides the solution with high speed motion controllers & Sigma 5 servo system which are connected on Mechatrolink-II communication to M/s Pack Tech Pack. The solution given for addressing the technical challenges of high speed multi head machine with toy conveyor.

- Efficient controlling of the system at high speed.
- Paper length accuracy achieved with eye mark control with an error of 1mm.
- Proper synchronization achieved with multi head signal if material is not present.
- Proper synchronization achieved with toy conveyor as machine will wait if toy is not present.
- Confirmation of toy in each packet is also achieved.
- Speed of the machine achieved & tested on 100 packets per minute.

**System Architecture:**

![System Architecture Diagram]

**Results:**

YASKAWA provided the solution for M/s Pack Tech Pack for their Multi head machine with toy conveyor which is successfully installed and running at M/s Priniti Foods Pvt. Ltd for the last six months. YASKAWA systems provides a smooth control along with dynamic performance of the machine and provides an increase in production and a quality product.