

IEEE Nagoya YP Social Event 2019 "Coca-Cola Tokai Plant Tour" Event Report

IEEE Nagoya Section Young Professionals Affinity Group

1. General information

We visited Coca-Cola Bottlers Japan Tokai Plant, in Aichi prefecture. Coca-Cola Bottlers Japan is one of the most famous beverage company in Japan.

- Date: 15:10-16:20, September 16th, 2019
- Address: 266-18, Tonowari Minamishibatamachi, Tokai-city, Aichi Pref., Japan
- HP: <https://www.ccbji.co.jp/plant/tokai.php>
- Participant: Total 5 people (4 IEEE members and 1 non-member)



Fig. 1 Coca-Cola Tokai Plant



Fig. 2 Entrance of the plant

2. Video and Experience Corner

First, plant staffs gave us some bottles of beverages and showed us an introduction video about history of Coca-Cola and overview of producing beverages (Fig. 3).

Coca-Cola considers environmental problems on producing process. For examples, preforms which are small prototypes of PET bottles enable to reduce transportation costs. Uniforms the plant's workers wear are made by recycled PET bottles.

There was an experience-based learning corner such as quiz can be done with tablet, and an interactive art as if swimming in soda (Fig.4). These contents seemed to attract interest of kids and to facilitate their learning. Actually, there were many kids and their parents in the plant tour.

Coca-Cola's bottle design was well-considered for branding (Fig.5). The bottle shape was designed to be identified just by holding it. In other words you can distinguish Coca-Cola from others in the dark. Coca-Cola is committed to its industrial design.



Fig. 3 Video about Coca-Cola



Fig. 4 Soda-themed interactive art



Fig. 5 History of bottle design

3. Production Line Tour

The staff took us to “North No.1 Line”, an actual production line. When we visited, the line was just in operation for bottles of tea. Tokai plant uses different production lines depending on types of bottles and beverages. North No.1 Line is for small PET bottles of non-carbonated drink such as green tea, tea, orange juice, and sports drink. North No.3 is for large bottles of carbonated drink (shown in table 1). According to the staff, North No.1 can produce 600 bottles per a minute. Moreover, North No.3 can do 1,200 per a minute.

The production line we visited was in the stage of labeling, printing production numbers, and casing. Workers in the line sometimes stopped the line and checked apparatuses. Safety of human working space in the line was considered, e.g. emergency showers and ladders with back baskets.

Table 1 Lines and types of beverages

Line Name	Bottle/Can	Carbonated
North No.1	Small PET Bottle	Non-carbonated
North No.3	Large PET Bottle	Carbonated
South No.4	Large PET Bottle	Non-carbonated
South No.7	Can	-

4. Conclusion

We visited Coca-Cola Bottlers Japan Tokai Plant. We knew Coca-Cola’s environmental movement, industrial design, relationships between type of products and production lines, and safety measure of production lines. We think this was an great opportunity to learn different field and we will make use of this experience as an engineering researcher



Fig. 6 Group photo