



SMART BEE

# Smart Bee Box

## Easy CNC Tool Management

- Less Labor
- Cost Saving
- Auto-generate Report

[smartbeebox.com](http://smartbeebox.com)

SHENZHEN DANFOO TECHNOLOGY CO.LTD





# CONTENTS

01

**About Us**

02

**Value & Highlights**

03

**Outstanding Design**

04

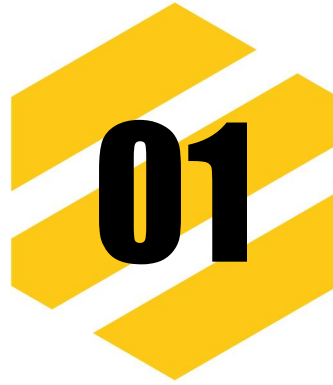
**Case Study**

05

**Specification**

06

**Service Commitments**



# About Us





# Company Introduction

**Shenzhen Danfoo Technology Co., Ltd.** (SmartBee) was established in 2015 and is a technology-driven enterprise focused on providing **digital solutions for the machining industry.**

Headquartered in Shenzhen, it has a subsidiary in Suzhou and offices in Ningbo, Qingdao, Xiamen, Xi'an, Zhengzhou, Weihai, Tianjin, Jinan, and the Sichuan-Chongqing region.

**Smart cabinet series are hot-selling in over 30 countries and regions worldwide.**

**SmartBeeBox**—Automated management of cutting tools, tools, and materials saves labor, costs, and effort;

**SmartBee Machinery Cloud**—Networked machines and cloud-based workshop management enhance equipment utilization;

**SmartBee MES**—Transparent and visualized work order progress management;

**SmartBee iStore**—Intelligent requisition and digital replenishment.



# Cross(IT + Machinery) Team with high innovation



**Liang Yi**

Operation Director

Huawei supply chain expert(10 years)  
Huawei(Brasil) ERP launching team head



**Wang XueJun**

Solution Director

Tsinghua Univ. Bachlor  
Chief Engineer of Dahe Machine  
VP of LG MAZAK  
30 years machinery industry experience



**Chen Yan**

GM, Product manager,  
Sales director

Jilin Univ. Bachlor  
Tsinghua Univ. Mastor  
Huawei product manager  
12 years sales experience  
IT+ Machinery backgroud



**Huang Hua**

R&D Director

Former Huawei R&D manager(7 years)  
heading development team of 100+ people in Huawei



**Zhao JingLong**

VGM, Product manager

Tsinghua Univ. Bachlor  
Paris Institute of Technology Mastor  
TUS HOLDING product manager  
6 years SME solution design experiece



# Value & Highlights

Traditional Tool Management upgrading towards Digital Tool Management

Practical Features Enables Efficient Tool Management



# Smart Bee Box

A smart cutting tools management system designed for machining plants.

24 hour unattended

Auto-generate Report

Save 20% Tool Cost

Easy to Use, Friendly Experience





# Traditional Tool Management Upgrading towards Digital Tool Management



## Warehouse + Administrator

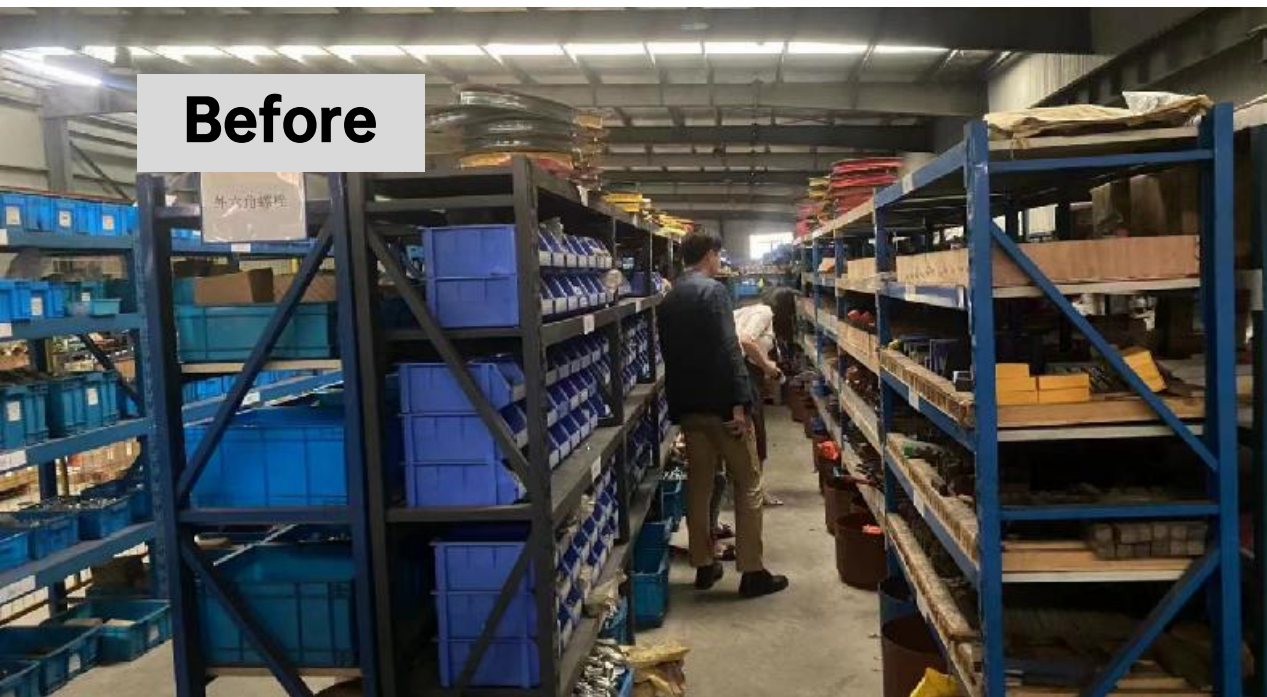
High cost, Lacking of night shift management



## One tool cabinet is enough

One cabinet manages all the tools  
Placing neighbor by CNC machine, take tools in 10 seconds

**Before**



**After**





# Traditional Tool Management Upgrading towards Digital Tool Management



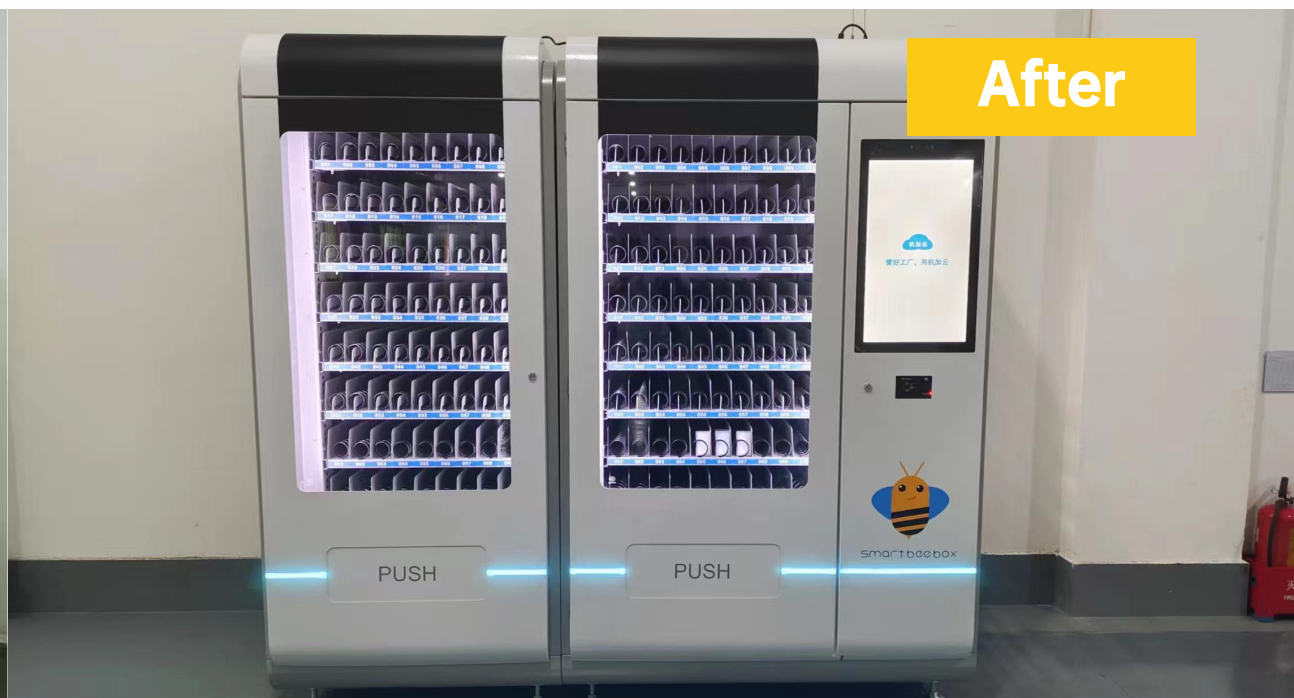
## Prepare tools before every shifts

Unable to accurately prepare tools.  
Unable to replace tools when if the admin is off-duty.



## 24-hour unattended Tool Pick up/Return integrated

Flexible for workers to get, return, and sort the tools.  
Workers can get the tools according to the orders set in SMARTBEE, even the admin is off duty.



# Traditional Tool Management Upgrading towards Digital Tool Management



## Borrowed tools are lost or not returned

Tools are stolen by tool users. Tools are borrowed without return

**Before**



## Auto Recording, Tool Tracking

Automatically record the behaviors of Take & Return.  
Any single tool must be returned

**After**

Device management		Historical data export	
2023-11-08	—	2023-12-08	Last day
Tool Pickup Log		Tool Return Record	Tool Receiving Record
	Borrowing date	Borrower	Material Requisition No.
1	2023-11-14 10:59:06	SouthernChan	
2	2023-11-14 10:54:33	SouthernChan	
3	2023-11-14 10:47:25	SouthernChan	
4	2023-11-14 10:47:25	SouthernChan	
5	2023-11-14 10:47:25	SouthernChan	
6	2023-11-14 10:47:25	SouthernChan	
7	2023-11-14 10:42:49	SouthernChan	
8	2023-11-14 10:33:55	SouthernChan	
9	2023-11-14 10:33:55	SouthernChan	
10	2023-11-14 10:33:55	SouthernChan	

# Traditional Tool Management Upgrading towards Digital Tool Management



## Wasting of Tools

Many semi-new tools are found in the garbage.

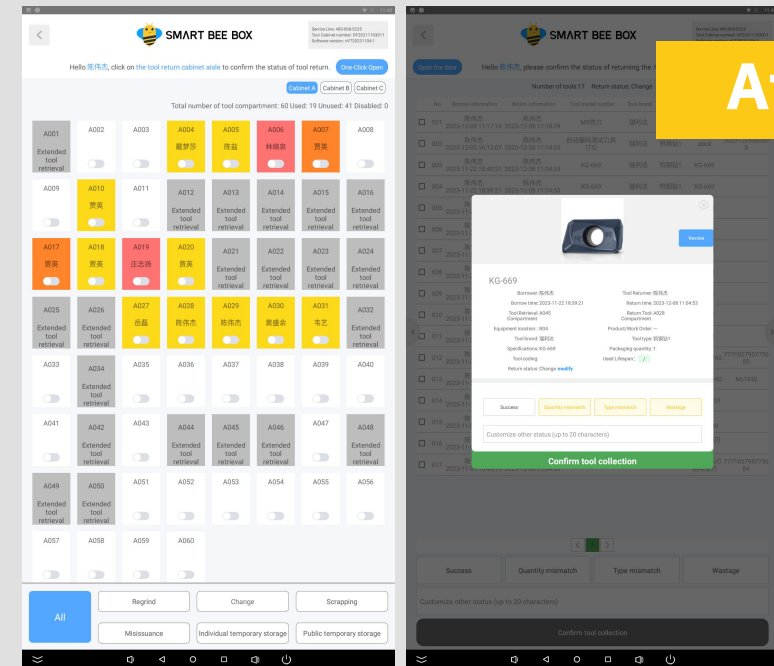
**Before**



## Auto tracking&confirmation of tool usage status

Tracking all the returned tool , say no to tool wasting.

**After**



# Traditional Tool Management Upgrading towards Digital Tool Management



Manual recording are time-consuming and laborious

Recording through handwriting is laborious and inaccurate.

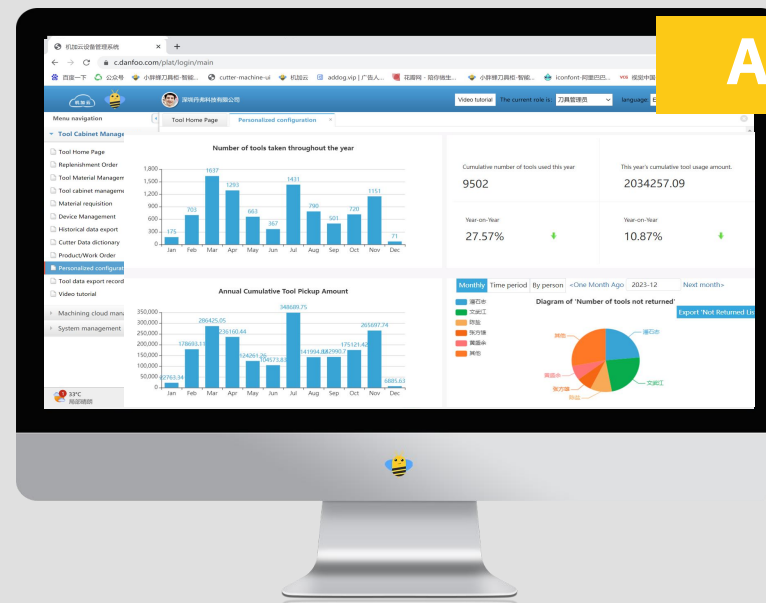


Before



Multidimensional statistical report

All data is recorded by the system automatically.  
Real time generation of multi-dimensional statistical reports, accurate cost analysis, one click to export data.



After

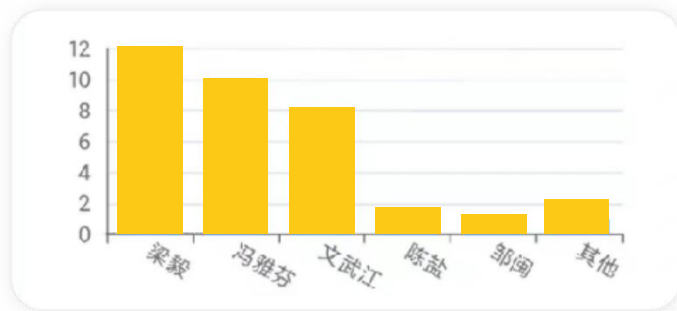


# Practical Features Enables Effecient Tool Management

## Auto Statistic & Ranking

Automatically generate the analysis and ranking of irregularities.

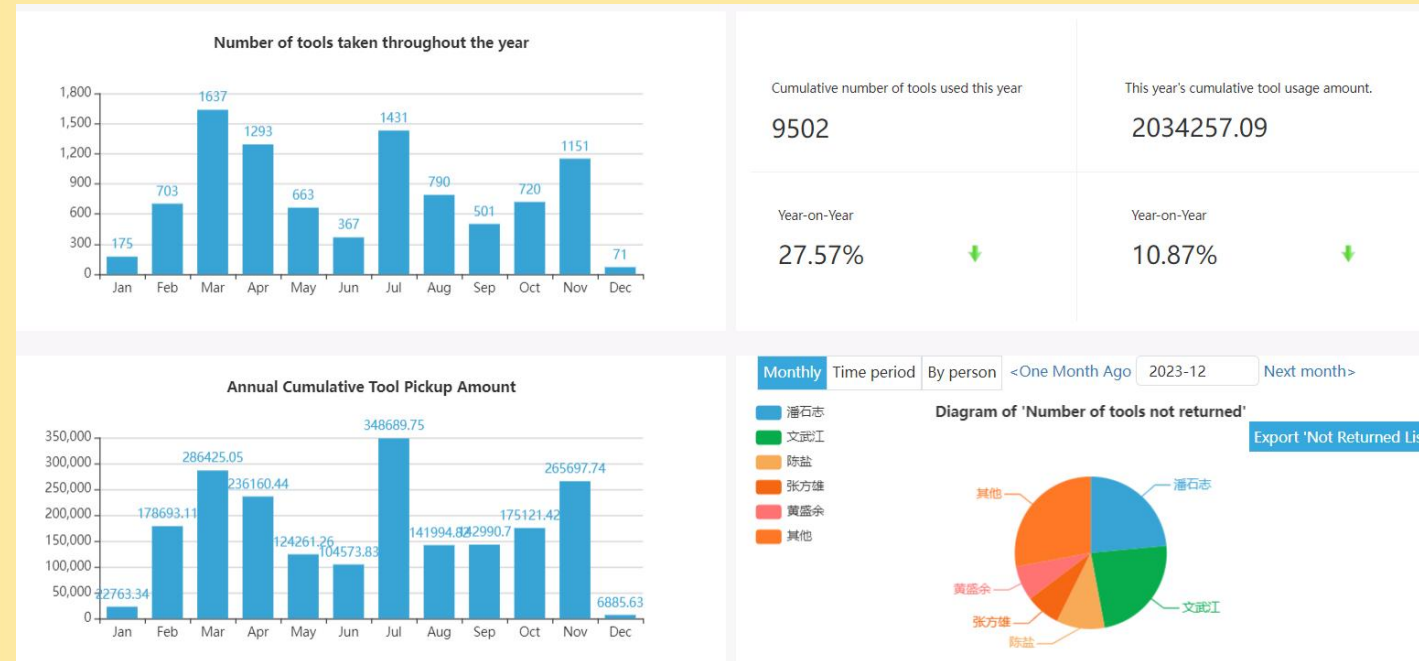
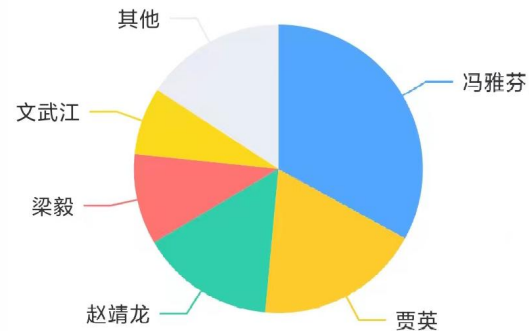
Using digital system to monitor and regulate employee behavior



# Practical Features Enables Effecient Tool Management

## Analyzing Tool Cost

Visually view the proportion of tool consumption by personnel/tools/equipment



# Practical Features Enables Effecient Tool Management

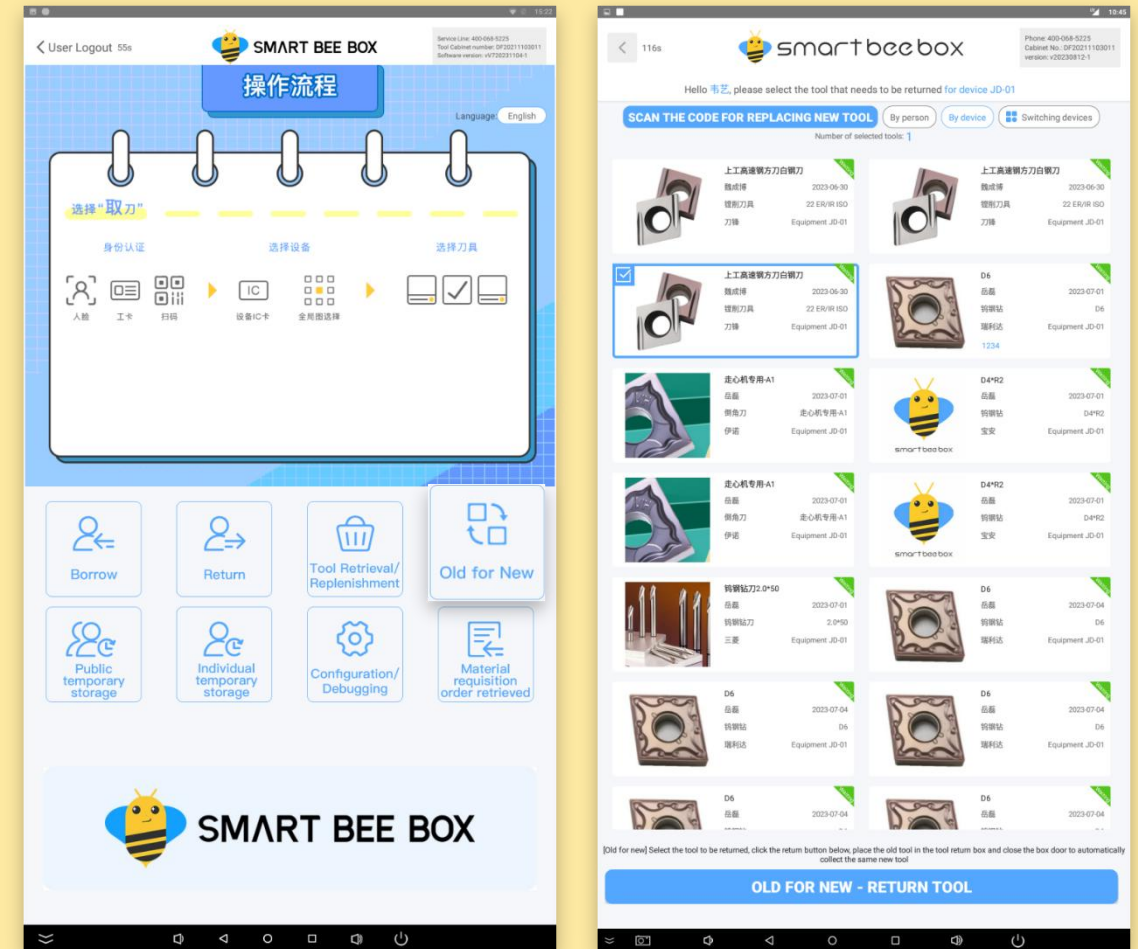
## Old for New

**Employee self help "Old for New"**  
Easy to operate and auto recording

**Permission settings:** Operators can only exchange old for new, and technicians can get any tools.

**Self service:** Without admin, employees can login via Face ID then operate.

**Report accuracy:** Automatically generate old for new reports

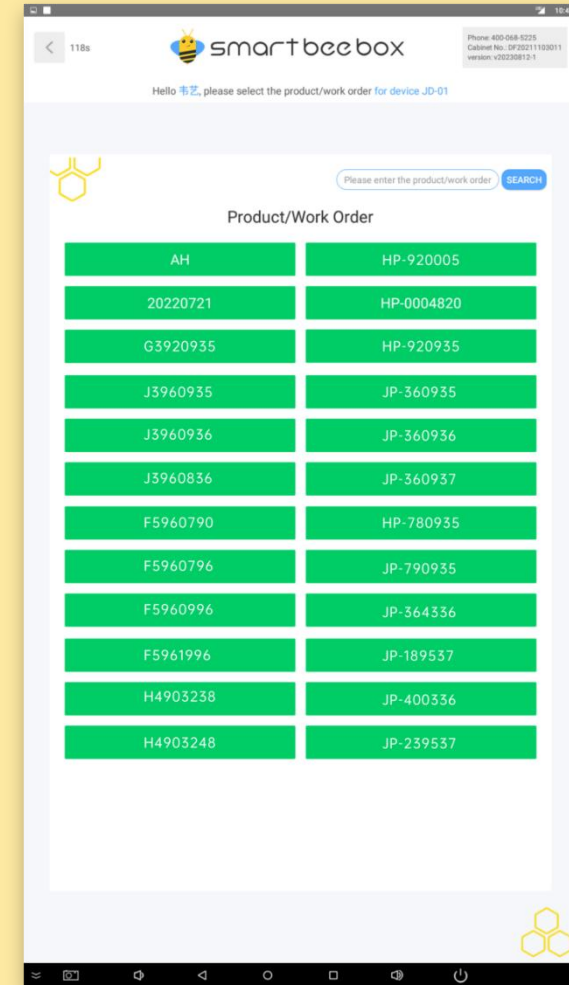


# Practical Features Enables Effecient Tool Management

## Binding tool list with product (production process)

The users can only take the tools corresponding to the product or work order they chose.

Manage your tools in a more accurate and efficient way. Auto statistic tool cost of a specific product.



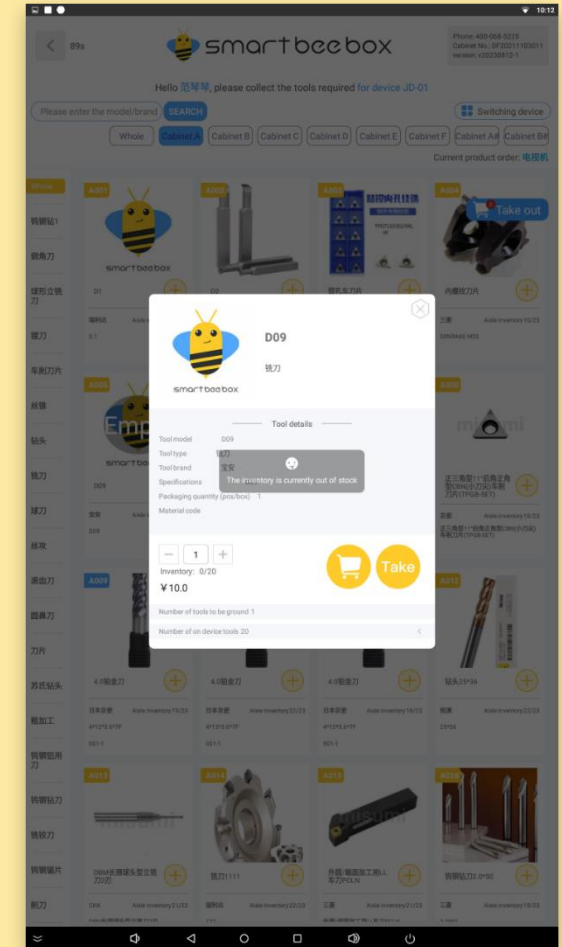
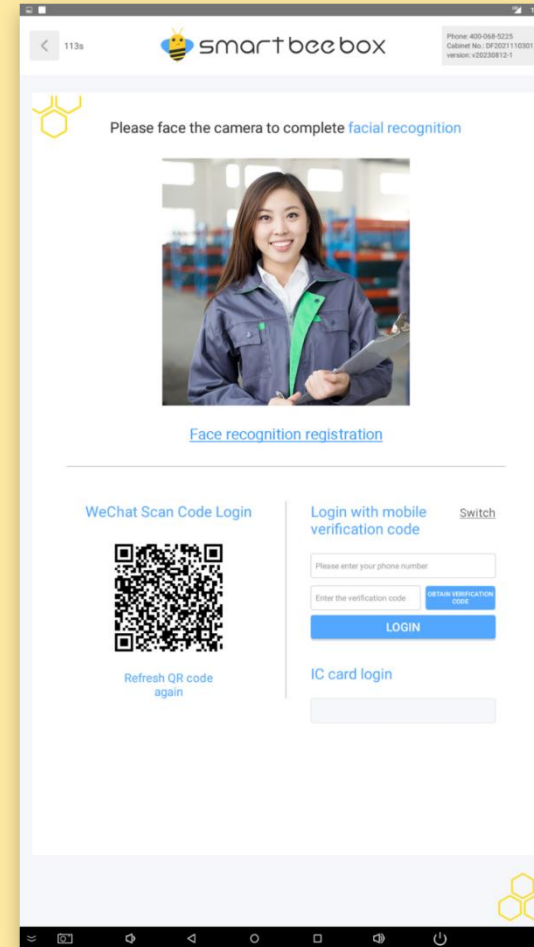


# Practical Features Enables Effecient Tool Management

## Face Recognition + Authority Control

The user can no longer take the tool if the number of tools he took reaches the upper limit (can be set by admin).  
Different group, different tool authority

Urge employees to return cutters in a timely manner, Improve the level of refined management in the workshop to prevent the stagnant tools.



# Practical Features Enables Effecient Tool Management

## One cabinet for multiple Usages

### Public Safekeeping:

Traceable usage of public goods

### Personal Safekeeping:

Greatly convenient for employees to store measuring tools, calipers, and other items

### Turning the returning cells to retrieving cells:

Big size cutting tools/materials can be placed in the returning boxes. The requisition status can be automatically recorded

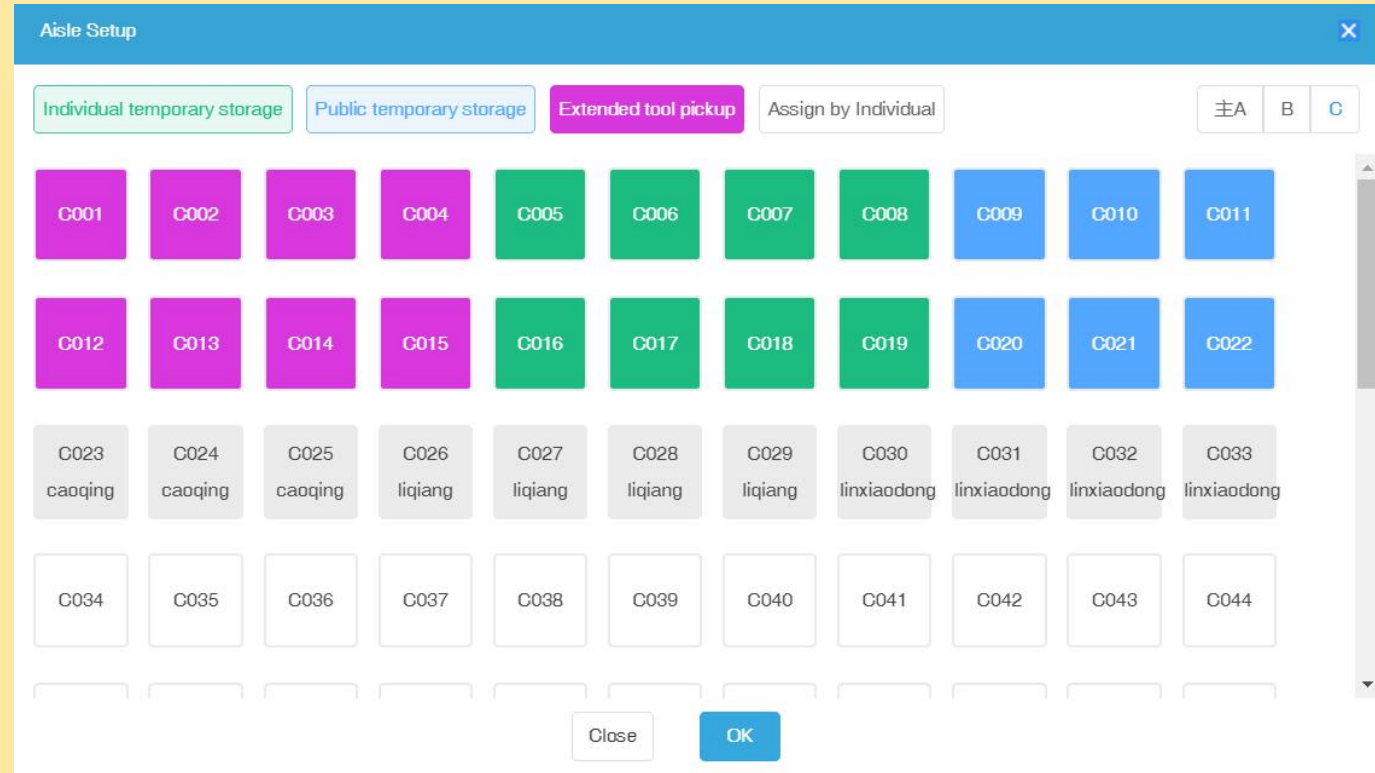


# Practical Features Enables Effecient Tool Management

## Extension function of cutting tool receiving cells

According to the needs of tool management, the tool admin can set the tool receiving cells as retrieval cells at any time.

It is conducive to maximizing the management function of the tool cabinet,  
More flexible and variable tool management,  
Maximizing tool management value at low cost.

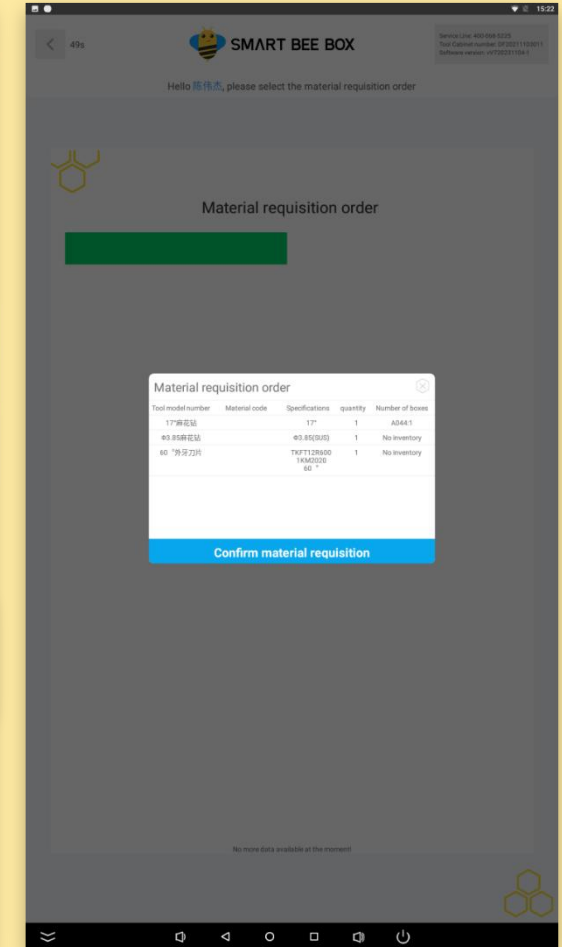
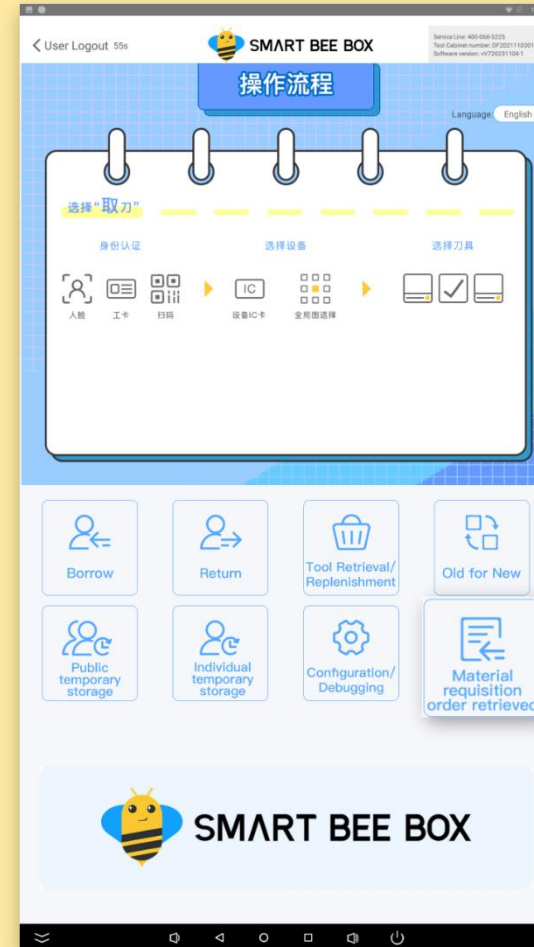


# Practical Features Enables Effecient Tool Management

## Picking list of tools

Employees can get cutting tools based on the pick list which set by the admin.  
Get multiple cutting tools in one time, fast and accurate.

It is beneficial for greatly improving the efficiency,  
Effectively preventing employees from randomly picking and wasting .





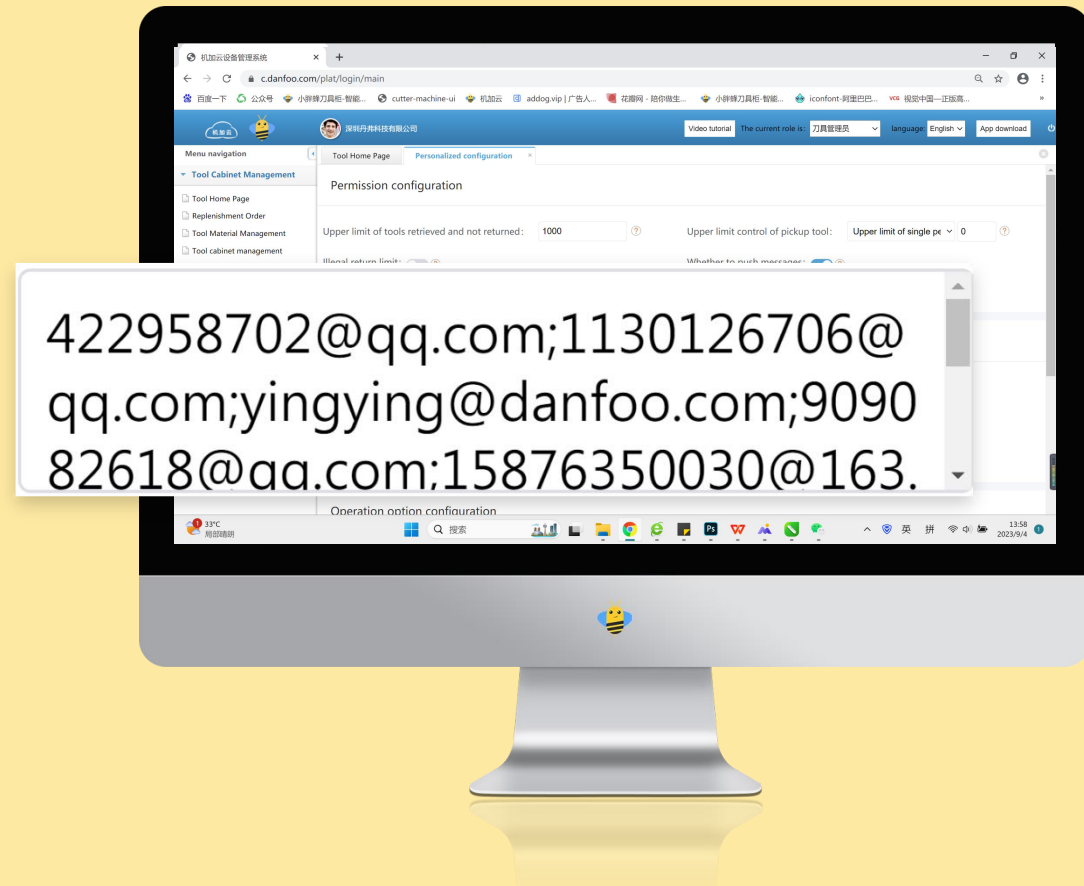
# Practical Features Enables Effecient Tool Management

## Inventory alert

The system automatically and regularly pushes the inventory status of cutting tools via e-mail. This benefits admins to apply for the replenishment of inventory in time, ensure the production progress.

Email notification:

422958702@qq.com;1130126706@qq.com;yingying@danfoo.com;909082618@aa.com;15876350030@163.



# Practical Features Enables Effecient Tool Management

## Fully Automatic Tool Lifespan Statistics

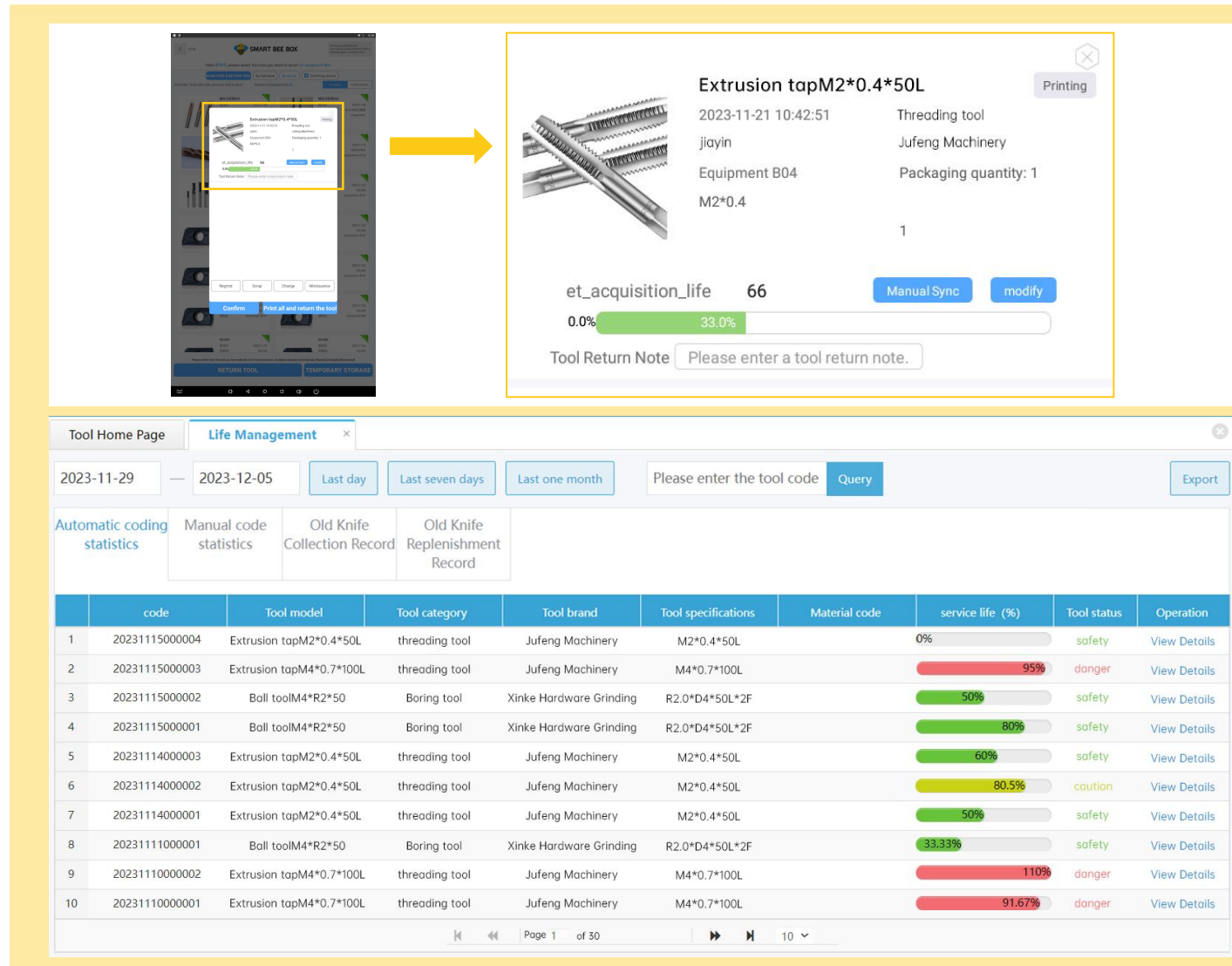
- Without any additional operations, the tool's lifespan is automatically collected upon its return.
- With the capability to perform multi-cutting work on various materials, the tool achieves precise multi-lifespan accumulation.

Tips: Auto lifespan of tool based on Machinery Cloud(Machine Data Collection System), and works on Model X.

### Traditional Tool Lifespan statistics :

Each operator is required to manually record the lifespan of individual tools. The admin must gather all data and manually input it into the Excel file.

Laborious and inaccurate!



# Practical Features Enables Effecient Tool Management

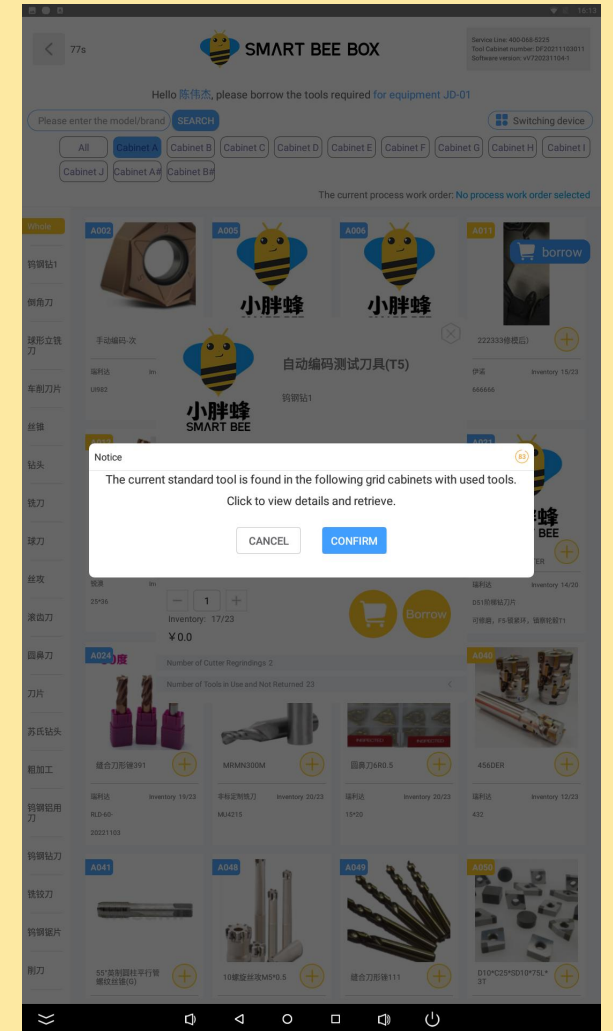
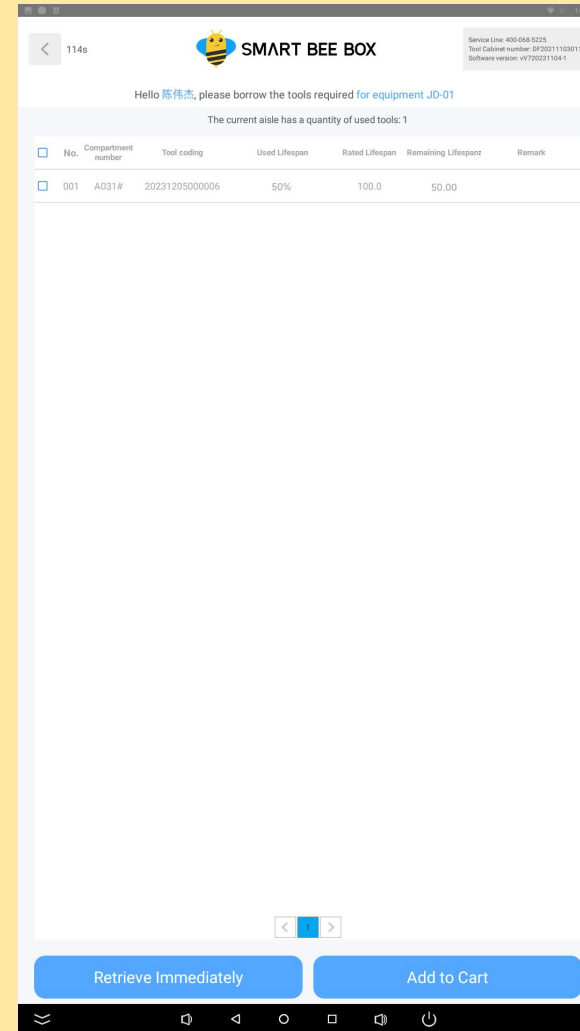
## Prioritizing Semi-used Tools

- Replenish the utilized tools in the side box, clearly distinguishing them from the new tools.
- Prioritize semi-used tools by displaying a pop-up when there is a semi-used tool of the selected model in the side box.
- Further reduce tool costs by an additional 10%.

### Traditional Management:

Operators prefer utilizing new tools and often discard semi-used tools, even if they are still functional.

Tips: works on Model X.





# Outstanding Design





# Outstanding Design

## Master Designed

Designer : Liu Yang

Industrial Design Dept. Tsinghua  
Univ. Worked in LG、GALANZ、TCL

Awarded :  
DDF Top 10,iF Industrie Forum  
Design,Reddot,GoldenPin Design  
Award





# Case Study

■ SMART BEE BOX,EASY CNC TOOL MANAGEMENT



SMART BEE BOX

# Customer Cases (from Sep. 2021 till NOW)



**200+**  
Cities

**200+**  
Listed enterprises

**6000+**  
Customer Served

# Common Choice for Listed Companies and Leading Companies









# Benchmark Cases

mechanical equipment

## LG Chemical Co., Ltd

LG Electronics is a global leader and technology innovator in the fields of consumer electronics, mobile communication products and household appliances.



It's very convenient to use this, collecting cutting tools and cost analysis I can handle alone.

— Warehouse clerk Miss Li

## LG Chemical: How to take the cutting tool and return it efficiently in one minute?

### Customer Pain Points

It takes a long time to distribute cutting tools. In order to keep up with the production schedule, employees often need to run all the way to the warehouse to register the cutting tools. The administrator checks the data every day, and it takes a lot of effort to analyze the daily incoming and outgoing of multiple tools.

### Smart Bee Solution

By placing the SBB beside the production line, employees can quickly and easily receive the cutting tools. The SBB system automatically records the types of tools received, the number of tools received, and the people who received them, and generates analysis reports in real time.

### Values

The efficiency of the employees to receive cutting tools is greatly improved. The administrator could obtain the real time tools inventory with one click of the mouse. SBB could reduce the amount of tools used.

# Benchmark Cases

mechanical equipment

## Amphenol Kaijie Technology Co., Ltd

Amphenol Group was founded in 1932 and entered China in 1984. Amphenol implements the strategic policy of globalization and is a leading supplier in the global telecom market, mobile phone market and data exchange market.



This face recognition is very good, is to give them a little trouble when recording the face.

——Workshop Supervisor  
Supervisor Liu

## Amphenol Corporation: How to manage valuable cutting tools?

### Customer Pain Points

Hand-written tool collection information, No administrator in the evening shift, the administrator needs to prepare the cutting tools in advance before the end of the day shift. As most of the cutting tools are expensive, in order to prevent wastage of cutting tools, the administrator will control the number of receiving cutting tools. but in case of emergency, the staff can only suspend production if they cannot get the cutting tools in time.

### Smart Bee Solution

The tool locker is unattended 24 hours a day, so employees can take it as they go. The SBB system records real\_x0002\_time tool borrowing and returning information, and automatically tracks the destination of tools to eliminate random waste of tools.

### Values

Administrators do not need to prepare and distribute cutting tools for the night, as well as manual registration. The system can export all employees' tool collection information with one click. No more worrying about the impact on the production when employees break their cutting tools at night.






# Specifications






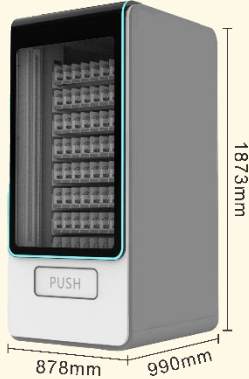


# Specifications

Model	Pro	X	S
Appearance			
Specifications	<ul style="list-style-type: none"><li>• <b>Type:</b> Main Cabinet</li><li>• Overall dimensions (H*W*D): 1857*1216*970 (mm)</li><li>• Capacity: 80 lanes, 20pcs/lane</li><li>• Side boxes: 50</li><li>• <b>Size of single grid(W*H*D):</b> 118*150*300(mm)</li><li>• 21.5 Inches touch screen, IC Card Reader, Face ID camera.</li><li>• Extended functions: Support (Max. nine Pro-E + nine TE108/100/57 Extended Cabinets)</li><li>• <b>Net Weight:</b> 420.5 KG(Around) Weight with package: 470.5KG(Around)</li></ul>	<ul style="list-style-type: none"><li>• <b>Type:</b> Main Cabinet</li><li>• Overall dimensions (H*W*D): 1866*1216*1001 (mm)</li><li>• Capacity: 80 lanes, 20pcs/lane</li><li>• Side boxes: 50</li><li>• <b>Size of single grid(W*H*D):</b> 118*150*300(mm)</li><li>• 18.5 Inches touch screen, IC Card Reader, Face ID camera.</li><li>• Extended functions: Support (Max. four X-E or four TE108/100/57 Extended Cabinets)</li><li>• Lifting plate: Inbuilt</li><li>• <b>Net Weight:</b> 438.5 KG(Around) Weight with package: 488.5 KG(Around)</li></ul>	<ul style="list-style-type: none"><li>• <b>Type:</b> Main Cabinet</li><li>• Overall dimensions (H*W*D): 1837*1121*900 (mm)</li><li>• Capacity: 60 lanes, 20pcs/lane</li><li>• Side boxes: 36</li><li>• <b>Size of single grid(W*H*D):</b> 118*150*300(mm)</li><li>• 18.5 Inches touch screen, Face ID camera.</li><li>• <b>Net Weight:</b>385KG(Around) Weight with package:435KG(Around)</li></ul>



# Specifications

Model	Pro-E	X-E
Appearance		
Specifications	<ul style="list-style-type: none"><li>• <b>Type:</b> Extended Cabinet</li><li>• <b>Overall dimensions (H*W*D):</b> 1857*840*970 (mm)</li><li>• <b>Capacity:</b> 80 lanes, 20pcs/lane</li><li>• <b>Extended functions:</b> Depends on the main cabinet</li><li>• <b>Lifting plate:</b> Optional</li><li>• <b>Net Weight:</b> 292KG(Around) Weight with package: 342KG(Around)</li></ul>	<ul style="list-style-type: none"><li>• <b>Type:</b> Extended Cabinet</li><li>• <b>Overall dimensions (H*W*D):</b> 1866*878*1001 (mm)</li><li>• <b>Capacity:</b> 80 lanes, 20pcs/lane</li><li>• <b>Extended functions:</b> Depends on the main cabinet</li><li>• <b>Lifting plate:</b> Inbuilt</li><li>• <b>Net Weight:</b> 317KG(Around) Weight with package: 367KG(Around)</li></ul>



# Service Commitments



# Service commitments

01

Continuous software upgrades

User feedback driven software development

By OTA or by providing upgrade packages

Provide users with richer and more enjoyable features

Software Upgrades

02

Provide software and hardware services to customers together with local agents

Technical support from Smart Bee

Lasting Service



SMART BEE BOX

# Thanks !

Looking forward to serving you



**Shenzhen Danfoo Technology. Ltd.**

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SMART BEE, Easy CNC Tool Management