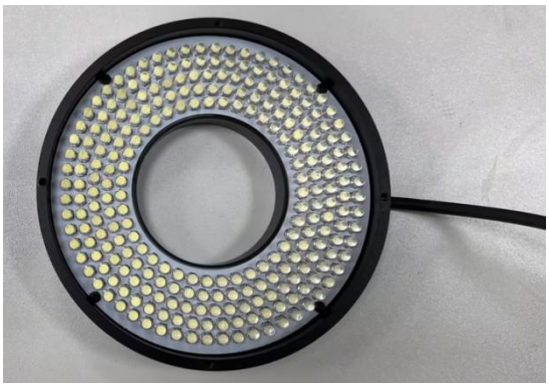
独立视觉验布系统

INDEPENDENT VISUAL INSPECTION SYSTEM

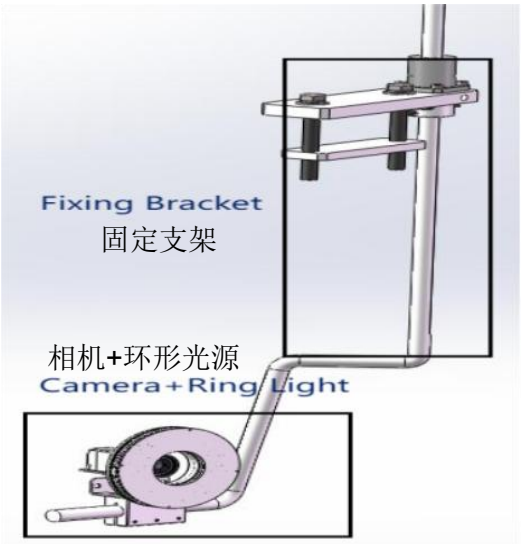
一 整体展示/Overall Appearance

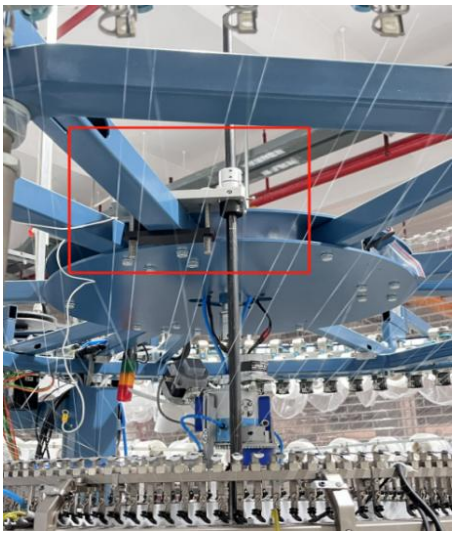
1.1 硬件部分/Hardware Component

验布相机 Inspection Camera	
环形光源 Ring Light	
触摸屏工控机 Touch Screen IPC	
变压器 Voltage Controller	

1.2 软件/Software

1.3 支架/Bracket



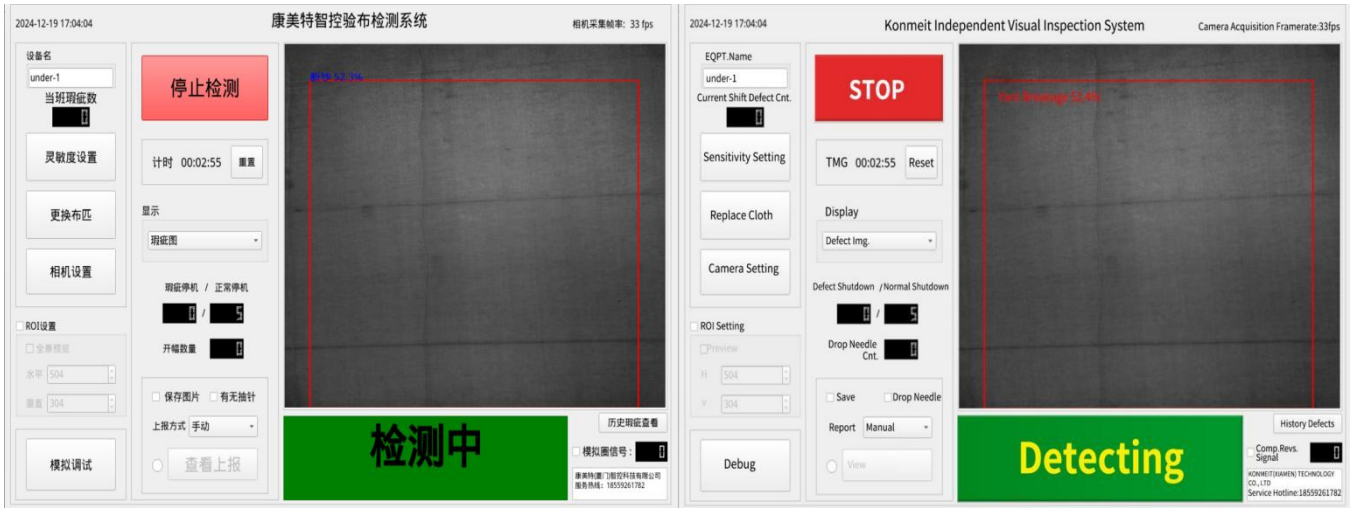


二 软件功能/Software Function

2.1 检测中/Detecting

➢ 若下方显示为绿色，显示检测中。此时设备处于启动中，并开启了停机告警。如需停止检测，请点击上方的“停止检测”按钮

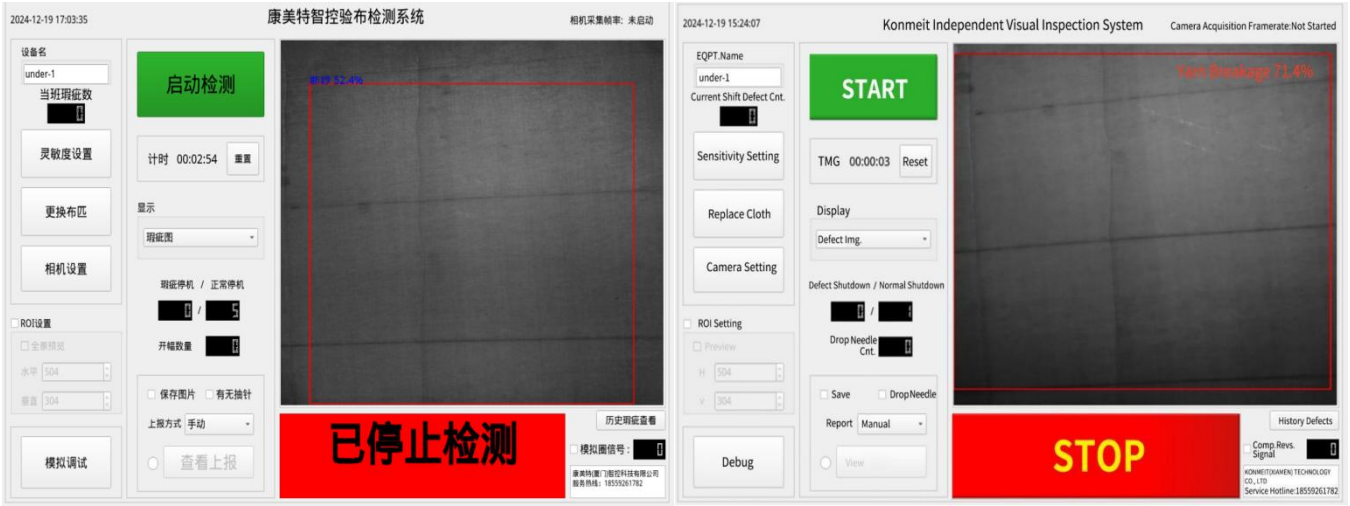
If the icon below is green and displays “Detecting”, it means that the detection device is in operation and has turned on shutdown alarm. If you want to stop detecting, please click “STOP”at the top right.



2.2 停止检测/Stop Detecting

➢ 若下方显示为红色，显示已停止检测。此时设备处于停止中，其他功能可以正常使用。如需启动检测，请点击上方的“启动检测”按钮

If the icon below is red and displays “STOP”, it means that the detection device is shutdown but other functions can still work normally. If you want to start detecting, please click “START” at the top right.



2.3 相机设置/Camera Setting

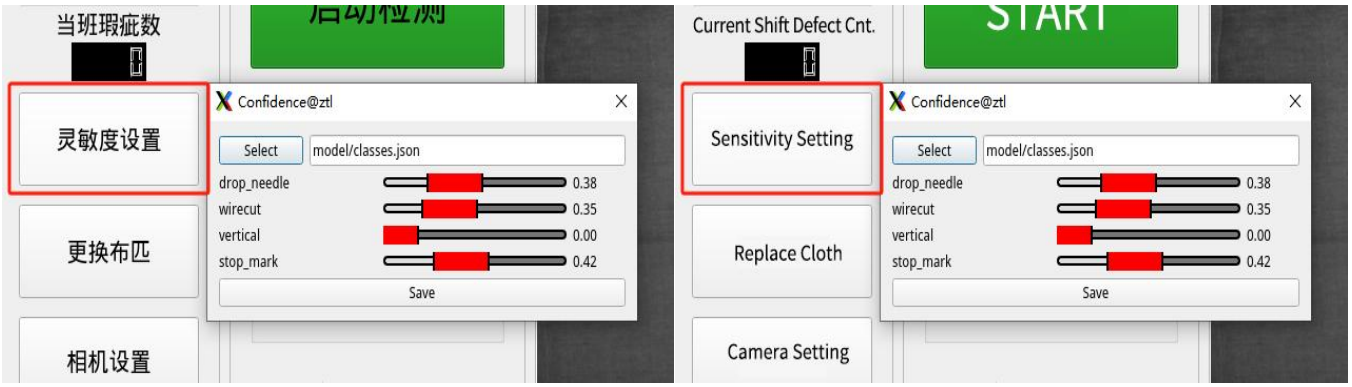
➢ 安装的时候根据布匹显示情况设置相机

Set camera parameters during installation according to fabric display information.

2.4 灵敏度设置/Sensitivity Setting

➢ 根据布匹材质调整验布灵敏度

Set detecting sensitivity according to fabric category. Adjust matching degree to decide whether to be recognized as defects.



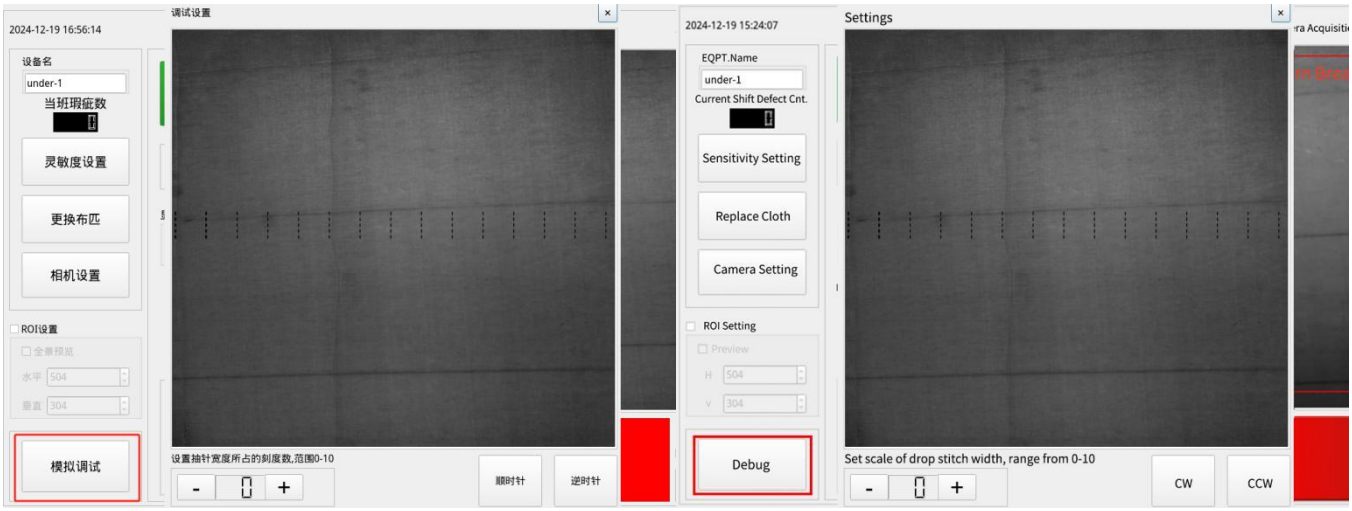
➢ 以上图示，设置drop_needle为0.38即检测到的缺陷与数据库中drop-needle模型的相似度超过38%将被视为抽针。若希望只有与drop-needle模型相似度高于80%的缺陷才被识别为抽针，请将drop_needle的值设置为0.8。

For example, in the picture above, setting *drop_needle* to 0.38 means that, only when the defect detected is more than 38% similar to the drop-needle model in the database, can it be seen as drop needle. If you want only detected defect with higher than 80% similarity to drop-needle model to be recognized as drop needles, then set *drop_needle* value to 0.8.

2.5 模拟调试/Debug

➢ 安装设备时，进行相应的调试，如果有抽针，需要设置抽针的数量和宽度（0-10）；并且卷布机开机检查布面清晰度

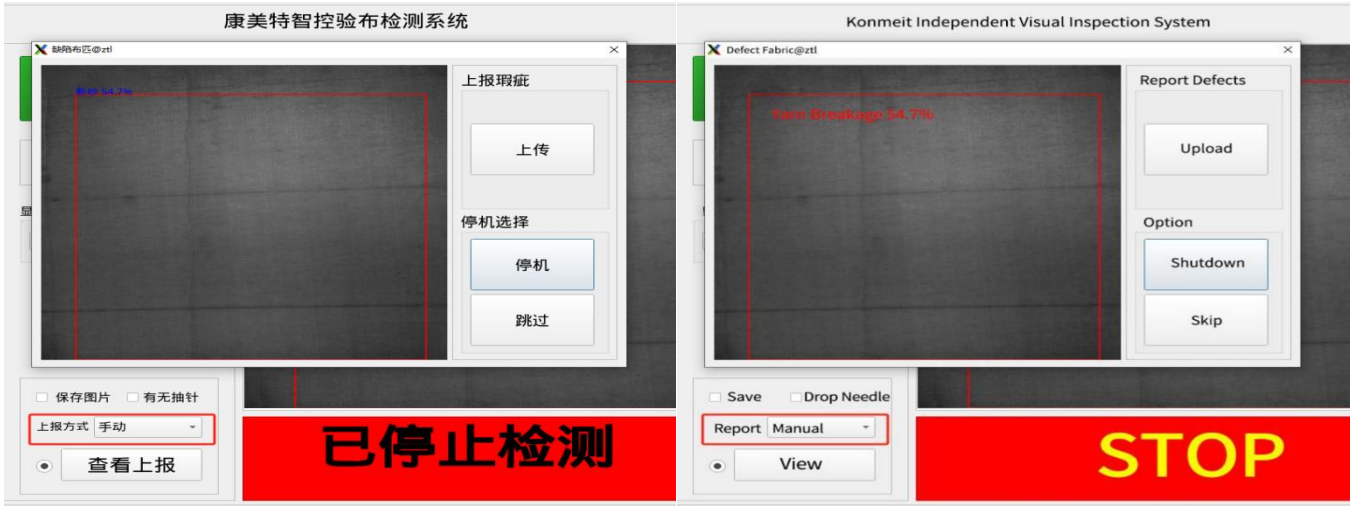
During machine installation, operate corresponding debugging. If the knitting process requires drop needles, then set needle quantity and width(0-10) according to your need; Check if the fabric is clear to see after starting the knitting machine.



2.6 漏检上报/Missed Detection Report

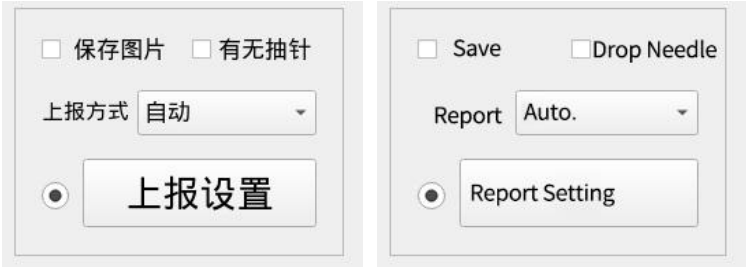
➢ 当设备需要手动停机上报时，可以通过人工去判断该瑕疵是否需要停机，若是没见过的瑕疵可以上报该瑕疵，增强机器学习力。

If the device prompts the window in the following picture for manually reporting, users can decide whether to stop the machine for the defect. If the defect model has not been learned, users can report the defect as way to strengthen machine learning.



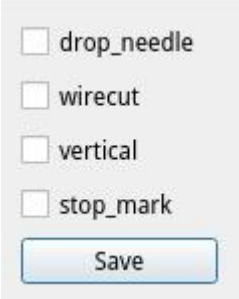
- 若不需要人工去判断，可以将上报方式选择自动，出现瑕疵自动记录和上传后台，方便后续生成报表分析瑕疵情况

Users can also choose automatic reporting, if there is no need to report manually. The machine will automatically record defects occurred and send the record to the backstage for defect analysis according to the formed record list.



- 点击上报设置，可以选择性针对哪些瑕疵需要记录和上传后台，哪些瑕疵不需要记录，过滤掉不需要的瑕疵，方便后续生成报表分析瑕疵情况

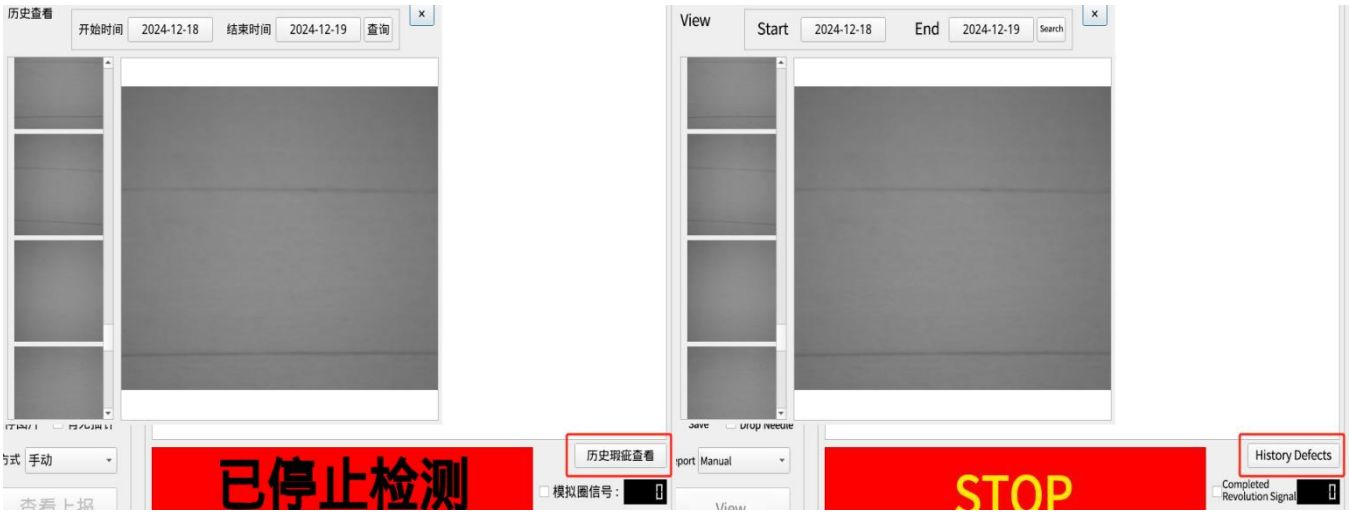
Click on report setting, users can decide what type of fabric defect is needed or not needed to be recorded and sent to the backstage for defect analysis.



2.7 历史瑕疵查看/History Defects

- 通过选择时间范围来筛选查看历史的瑕疵情况

Users can set the time range to view history defects.



2.8 圈信号/Completed Revolution Signal

➢ 勾选圈信号，转动卷布机，测试圈信号是否有变化

Tick *Completed Revolution Signal* to see whether the value on its right changes after starting the knitting machine.

2.9 导出报表文件/Export Report

➢ 将U盘插入到触摸屏工控机的USB接口，点击界面上的导出报表按钮，会将布匹的瑕疵出现时间、圈数和瑕疵类型等数据以excel表格的形式导入到U盘

Insert U disk into the USB port, click on *export report,* and all the records concerning occurrence time, revolutions and types of the detected defects will be exported to the U disk in an Excel format.

EQPT.Name	Start	Drop	Defect Occur Time	Current Revs.	Defect Type
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 19:29:54	89	Oil Needle
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024/12/17 19:29:40	85	Stop Mark
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 19:42:29	152	Stop Mark
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 20:02:46	205	Stop Mark
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024/12/17 20:02:56	208	Oil Needle
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 20:03:42	221	Oil Needle
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 20:05:25	252	Stop Mark
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 20:34:58	696	Oil Needle
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 21:54:46	1997	Stop Mark
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 21:55:17	2007	Oil Needle
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 21:55:28	2010	Oil Needle
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 22:16:48	2297	Oil Needle
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024/12/17 22:17:16	2306	Oil Needle
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-17 22:17:35	2311	Oil Needle
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-18 00:03:45	3474	Break
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024/12/18 0:56:28	3588	Break
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024-12-18 00:56:57	3597	Break
3A06	2024/12/17 19:19:16	2024/12/18 1:12:54	2024/12/18 0:58:24	3623	Stop Mark