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先锋科技

Titan Electro-Optics Co.,Ltd.

顶级光电产品专业代理商

# Display Measurement Total solution

## 车内光学测试系统

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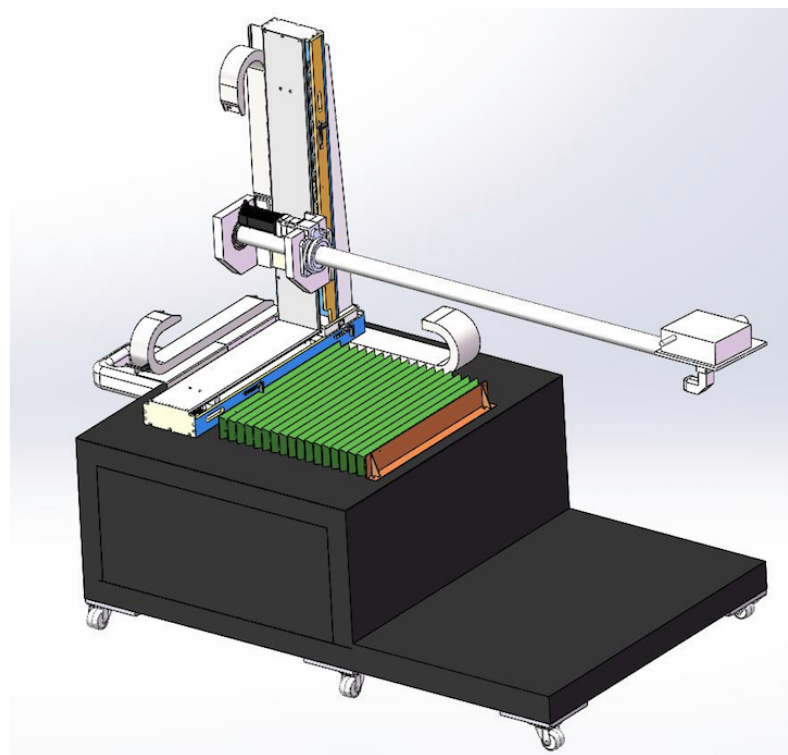
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# System Overview

系统名称： 车内光学测试系统  
产品尺寸： 1"~20"  
移动载台： XYZ  $\theta$   $\Phi$  五轴移动机构  
辉度计： PR-655 or 成像式亮度计(PR or RVS)  
视讯观测： CCD视讯观测系统  
电控系统： PC-Based控制系统

## 控制系统

- \*五轴自动控制
- \*辉度计控制及量测
- \*项目建立
- \*数据分析及报表输出



# System Configuration

measure

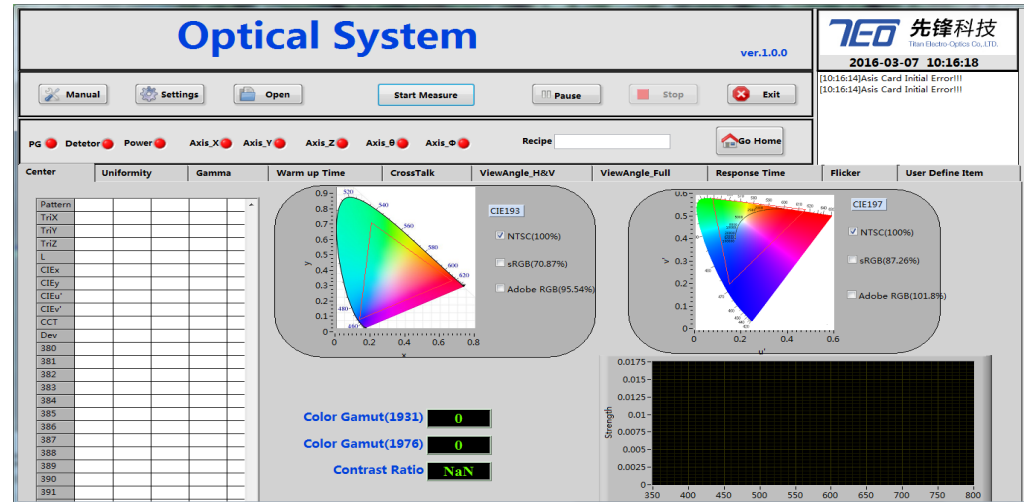


PR-655 or 成像式亮度计

L x y CCT  
Spectrum



Data



Software

# Measurement Items

No.	Equipment pec.	Description	Remark
1	量测范围	1"~20"	
2	平面量测功能	a. 5、9、13、25点或M X N点 b.任意点量测	可多点多次量测 单点多次量测
3	Warm Up Time	LCM点量至稳定时间量测	
4	Viewing Angle 量测	左右视野角：±90° 上下视野角：±90°	
5	Contrast Ratio	Luminance White/Black	需画面切换
6	Gray Scale Gamma	可自定灰阶数 8/16/32/64/128/256	需画面切换
7	Cross-talk	串扰量测	需画面切换
8	色饱和度(%)	与NTSC做计算	需画面切换
9	量测项目程序化	可依需求选定量测项目及顺序	
10	报表输出	依用户选定的项目输出Excel报表	

# System Specification

## Specification

项目	细项	仕様	备注
安全防护	1. limit sensor		
	2. 紧急停机钮		
规格	1. 可量测panel尺寸	1"~20"	
	2. 精密移动轴行程	X:使用日本高阶伺服马达500mm	精度<0.02mm
		Y:使用日本高阶伺服马达500mm	
		Z:使用日本高阶伺服马达700mm	
	3.精密旋转轴行程	$\theta$ : $\pm 90^\circ$	精度<0.1°
$\varphi$ : $\pm 90^\circ$			
4. 测量仪器镜头至待测物距离	350~550 mm		
其他项目	1. 量测仪器(辉度计)	PR655	
	2. PC SYSTEM	ADLink工业计算机	
	3. 视讯观测系统	内含CCD、影像卡	
	4. 电控系统	PC Based操作系统	
厂务需求	电力配合	单相220V 30A	
文件	操作手册	中文	
售后服务	1. 教育训练	完整量测教育训练及简单故障排除	
	2. 保固	12个月	

# System Specification

## PR-655 Specification

Item	Specifications
Spectral Range	380nm ~ 780nm
Wavelength Resolution	3.5 Pixel/nm (128 Array Photo Diode)
Spectral Bandwidth	8nm(Option 5nm)
Spectral Accuracy	$\pm 2\text{nm}$
Luminance Accuracy	$\pm 2\%$ of calculated Luminance at 2856K
Color Accuracy	x, y:0.0015 (CIE:1931 , A light)
Operating Temp.	5°C~35°C
Interface	USB, Option RS-232





# System Specification

## RVS Specification



Measuring Items
ANSI 亮度
ANSI 色彩均匀度
棋盘格对比度
色彩 Mura
黑色 Mura
比较关注点
斜杠图像Mura
Mura 缺陷
像素缺陷
关注点
均匀度
Blob 分析
色度
行缺陷

# System Specification

## RVS Specification

Parameter	ProMetric Y2	ProMetric Y16	ProMetric Y29
Primary Application	Production Line Testing, Lighting	Production Line Testing	
CCD Resolution (pixels)	1600 x 1200	4896 x 3264	6576 x 4384
Total Megapixels	1.9	16.0	28.8
CCD Type	Cooled, Interline		
CCD A/D Dynamic Range	12 bits = 4096 gray scale levels		
High Dynamic Range (multi-exposure)	1,000,000:1		
Luminance (Minimum)	0.00001 cd/m <sup>2</sup> Limit of Detection 0.0001 cd/m <sup>2</sup> @ SNR = 60 0.0005 cd/m <sup>2</sup> @ SNR = 100		
Luminance (Maximum)	10 <sup>10</sup> cd/m <sup>2</sup> with optional ND filters <sup>1</sup>		
System Accuracy*	Illuminance ± 3%; Luminance (Y) ± 3%		
Short-term Repeatability**	Illuminance ± 0.02%; Luminance (Y) ± 0.02%		
Lens Type/Focal Distances Available	Electronically controlled focus and aperture; 20, 35, 50, 100 mm	Electronically controlled focus and aperture; 35, 50, 100 mm	
Field of View (Full Angle, H x V degrees)	20 mm 24° x 18° 35 mm 14° x 10° 50 mm 10° x 7° 100 mm macro 5° x 4°	35 mm 41° x 28° 50 mm 29° x 19° 100 mm macro 15° x 10°	35 mm 54° x 37° 50 mm 40° x 27° 100 mm macro 20° x 14°
Minimum Measurement Time (for 100 cd/m <sup>2</sup> )	0.3 sec - photopic	1.3 sec - photopic	2.0 sec - photopic
Spatial Measurement Capabilities	Luminance, Radiance, Illuminance, Irradiance, Luminous Intensity, Radiant Intensity,		

# System Specification

## RVS Specification

Parameter	ProMetric I2	ProMetric I8	ProMetric I16
Primary Application	Uniformity Testing, NFMS, ProMetric in R&D Setting	Production Line Testing	Production Line Testing
CCD Resolution (pixels)	1600 x 1200	3296 x 2472	4896 x 3264
Total Megapixels	1.9	8.1	16.0
CCD Type	Cooled, Interline		
CCD A/D Dynamic Range	12 bits = 4096 gray scale levels		
High Dynamic Range (multi-exposure)	1,000,000:1		
Luminance (Minimum)	0.00001 cd/m <sup>2</sup> Limit of Detection 0.0001 cd/m <sup>2</sup> @ SNR = 60 0.0005 cd/m <sup>2</sup> @ SNR = 100		
Luminance (Maximum)	10 <sup>10</sup> cd/m <sup>2</sup> with optional ND filters		
System Accuracy*	Illuminance $\pm$ 3%; Luminance (Y) $\pm$ 3%; Color Coordinates (x,y) $\pm$ 0.003		
Short-term Repeatability**	Illuminance $\pm$ 0.02%; Luminance (Y) $\pm$ 0.02%; Color Coordinates (x,y) $\pm$ 0.00005		
Lens Type / Focal Distances Available	Electronically controlled focus and aperture; 20, 35, 50, 100 mm		Electronically controlled focus and aperture; 35, 50, 100 mm
Field of View (Full Angle, H x V degrees)	20 mm 24° x 18° 35 mm 14° x 10° 50 mm 10° x 7° 100 mm macro 5° x 4°	20 mm 47° x 36° 35 mm 28° x 21° 50 mm 20° x 15° 100 mm macro 10° x 7°	35 mm 41° x 28° 50 mm 29° x 19° 100 mm macro 15° x 10°
Minimum Measurement Time <sup>1</sup>	0.5 sec - photopic 1.5 sec - color	0.7 sec - photopic 2.0 sec - color	1.2 sec - photopic 3.7 sec - color
Spatial Measurement Capabilities	Luminance, Radiance, Illuminance, Irradiance, Luminous Intensity, Radiant Intensity, CIE Chromaticity Coordinates, L*a*b* Color Scale, Correlated Color Temperature (CCT), Dominant Wavelength		

# Software Specification

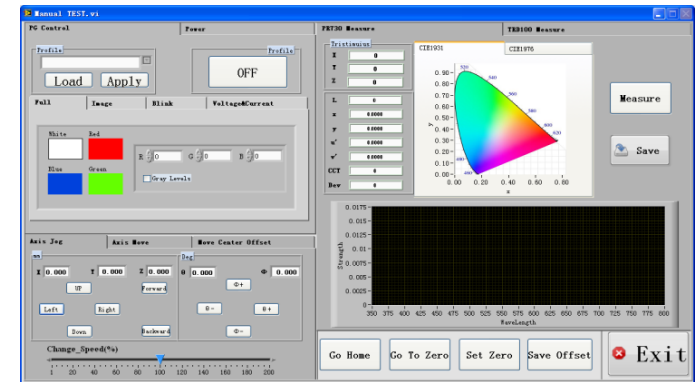
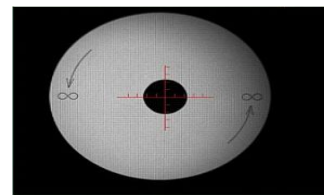
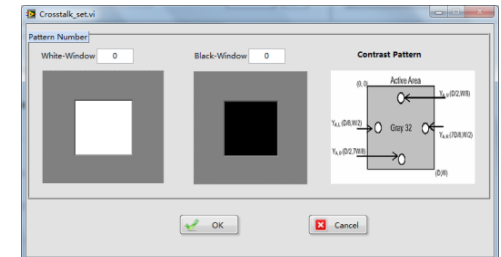
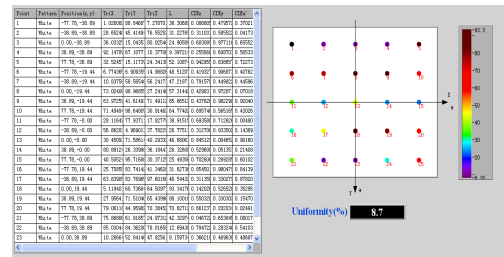
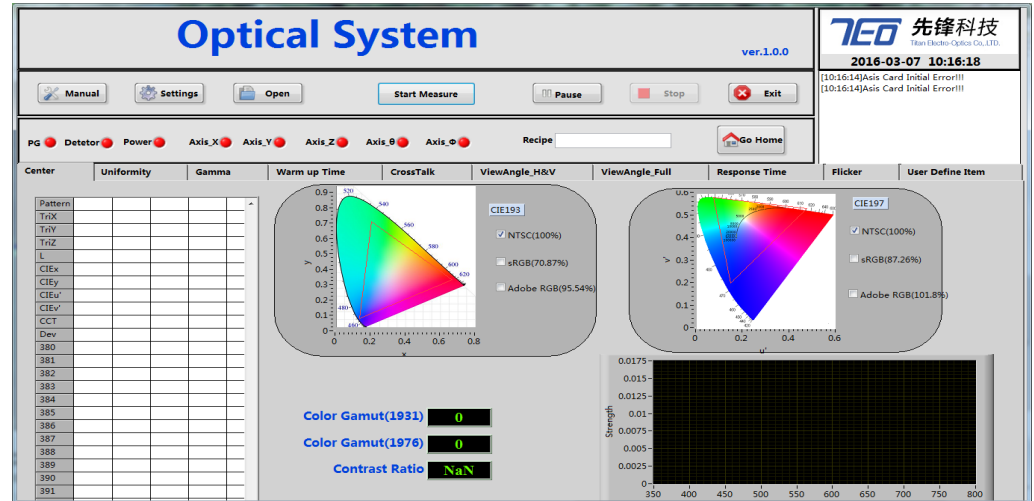
## Control PC & Software

### 计算机规格

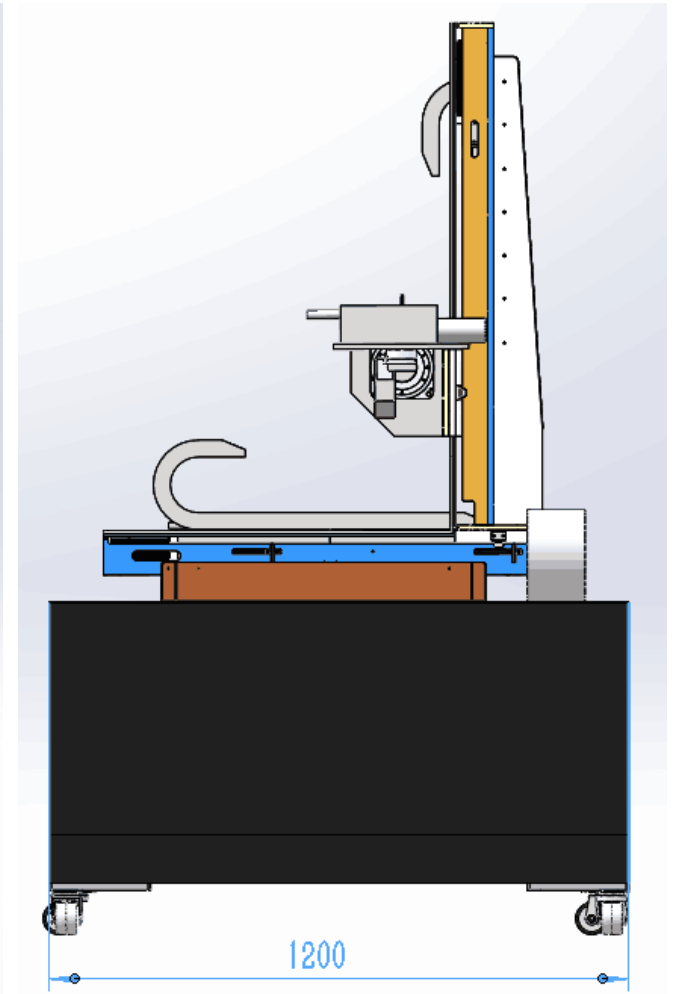
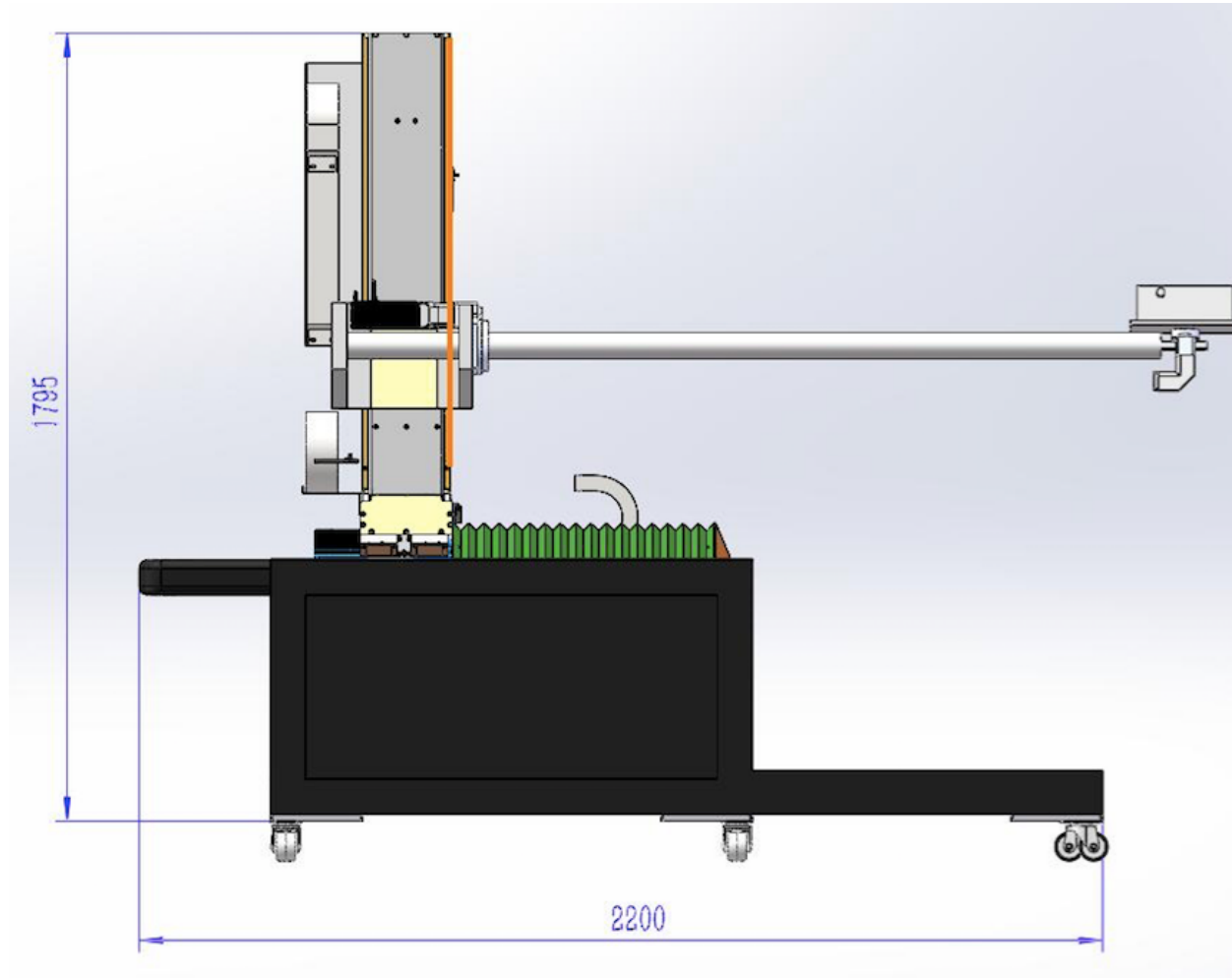
- \*ADLNK IPC
- \*ADLINK M40H 主板
- \*集成图形显示DVI, VGA显示输出
- \*CPU:I3-3200 3.2G 四核心 双线程
- \*RAM:4GB DDR3 1333
- \*硬盘:HDD 3.5" SATA3 500G
- \*8轴运动控制卡
- \*作业系统:Windows 7 pro 32bit

### 软件操作

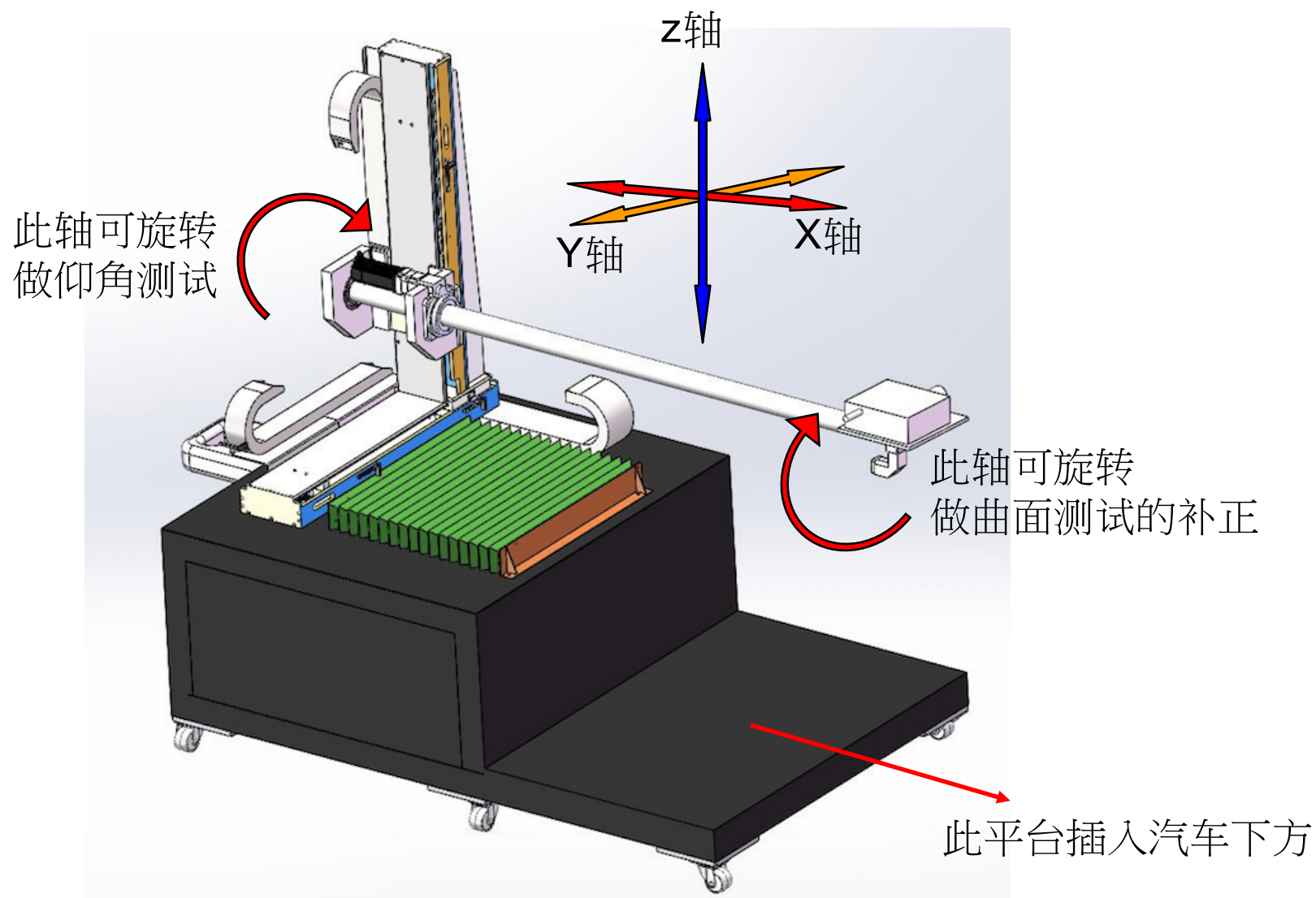
- \*手动模式
- \*专案建立
- \*测试点位编辑
- \*测试画面控制
- \*配置文件修改
- \*自动模式
- \*五轴移动控制
- \*客制化报表
- \*CCD实时显示



# System Layout



# Structure description



# Utility Specification

NO.	Equipment Spec.	Description	Remark
1	各Unit基本配备	Emergency Stop 按键	
		ESD Grounding Socket.(由QDS提供, 厂商预留接地线及固定之螺丝孔。ESD接地线和电源接地线不同, 接地阻抗 $<5\Omega$ )	
2	电力需求	AC220V/1 $\phi$ 50/60Hz 30A	

感谢您的关注

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