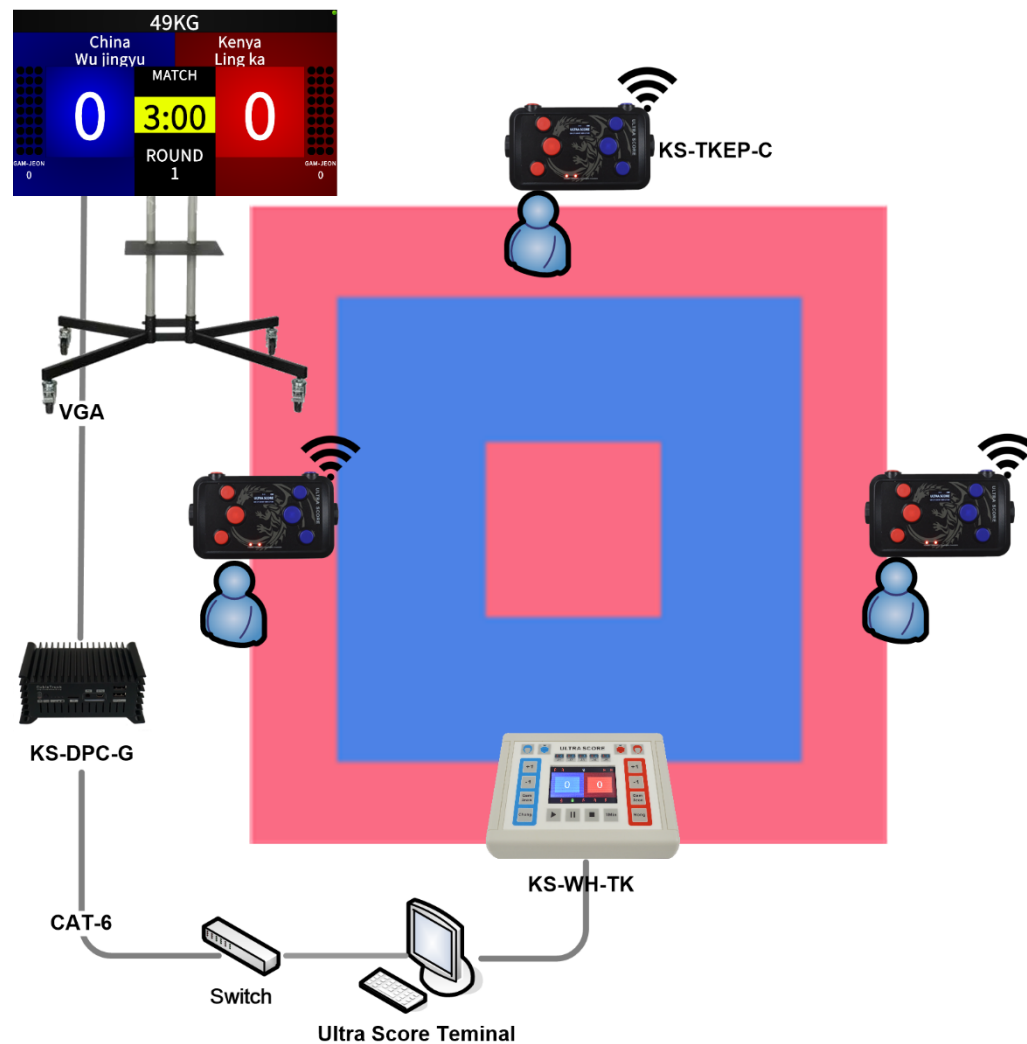


Taekwondo Kyorugi Arranging and Scoring System



1. System Introduction



2.1 Connection description

- 1) Install the Taekwondo Timing and Scoring software on the control computer.
- 2) Connect the Wireless Host (KS-WH-TK) with the control computer via a USB cable.
- 3) Connect the Score Display Controller (KS-DPC-G) with the control computer via network cable.
- 4) Connect the LCD display with the Score Display Controller (KS-DPC-G) via network cable.

2.2 Functions

Event arrangement

- Both import and input the players' information are available.
- Auto draw the players' lots.
- Auto generate, export and print the bracket.
- Auto generate, export and print the order form.

Scoring operation

- Professional wireless scoring controller supports adding 1-4 points for the player.
- With vibration alerts when getting a point.
- Display real-time score and device connection state.
- Modify the match time according to match category.
- Support extending multi-displays to show the match.

Results treatment

- Quickly print and export the result form.
- Rank statistics, quickly export and print.
- Quickly export and print the event form of referee operation.

System advantages

- With rich experience of tournament and stable system.
- Wireless scoring devices are easy to use without wiring.
- The information will auto save in case of power out and other emergency situations.
- We provide free upgrade service of software.

2.3 Product Configuration (one court of Kyorugi)

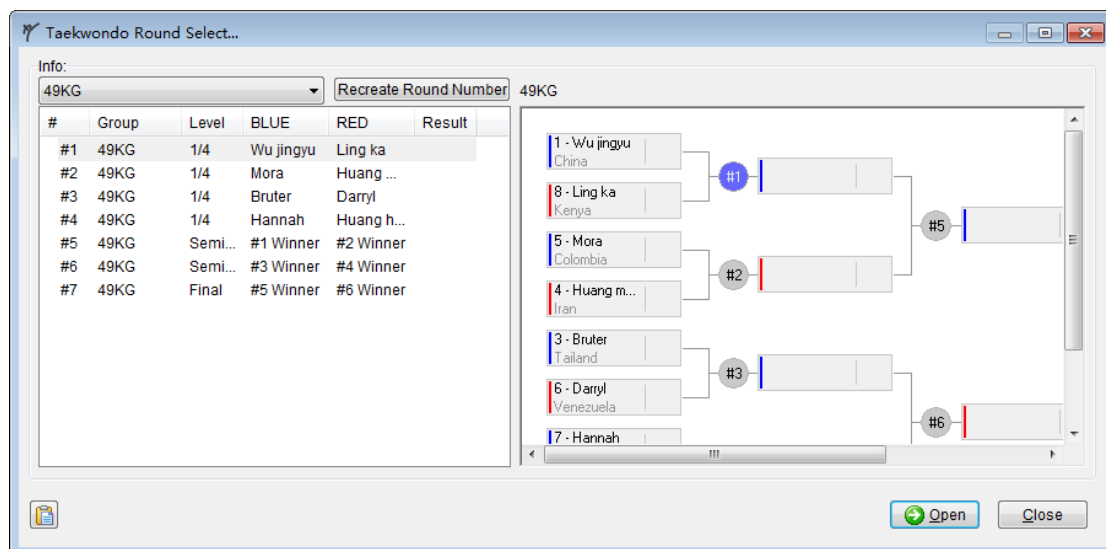
Products	Type	Number
Match Scoring System		
Ultra Score Software	Standalone edition	1
Wireless Host	KS-WH-TK	1
Wireless Scoring Controller	KS-TKEP-C	3
E-Body Protector	KS-TKEP-EP	2
E-Helmet	KS-TKEP-EH	2
E-Foot Protector	KS-TKEP-EF	2
Court Management Server	KS-CMS-G	1
Score Display Controller	KS-DPC-G	1
LCD TV	55 inch LCD	1
Computer	Dell	2
Printer	HP	1
Video Arbitration System		
Video Arbitration Server	KS-PARROT-2C	1
Control Panel	KS-PARROT-CP	1
HD Camera	/	2
Tripod for HD Camera	/	2
SDI Cable	15m	2
LCD Display	/	1

3. Specification for products

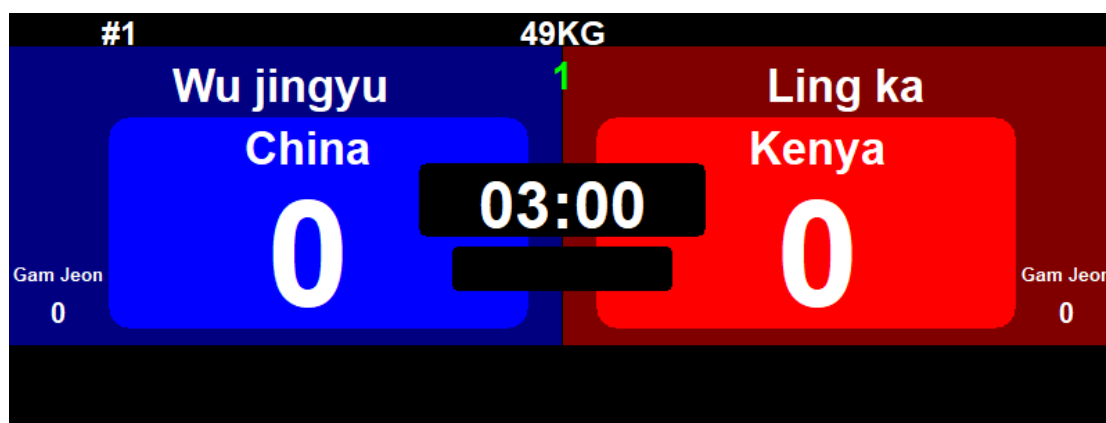
3.1 Ultra Score Software

Products	Details
Standalone edition	<ul style="list-style-type: none"> ◆ The referee operates the match on the PC for display directly. ◆ Supports: Taekwondo Kyoruki, Taekwondo Poomsae ◆ English version ◆ Including 1 dongle

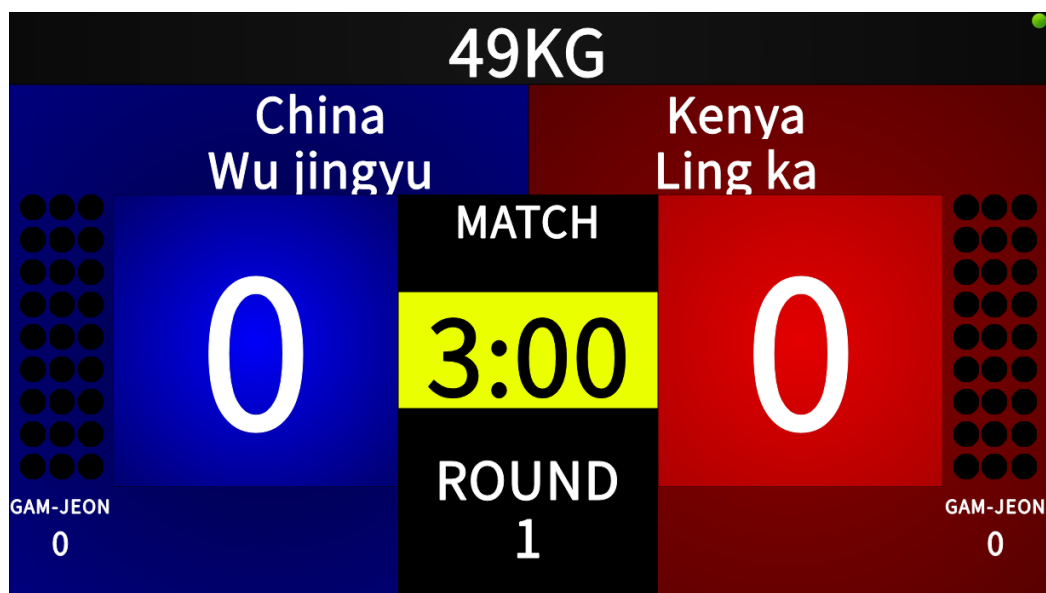
Arranging interface:



Timing and Scoring interface:



LCD display interface:



3.2 Wireless Host

Products	Detail
Wireless Host	<p>Type: KS-WH-TK Size: 200x145x60 (mm) Communication: 433MHz Wireless Function:</p> <ul style="list-style-type: none">◆ Must be used together with Taekwondo Scoring Software.◆ Wireless communication distance up to 20m.◆ Support 5 wireless scoring controller and 2 electronic body protector.● Customize the communication band.◆ Support multi-site match simultaneously.



3.3 Wireless Scoring Controller

Products	Details
Wireless Scoring Controller	<p>Type: KS-TKEP-C Size: 160*95*30mm Communication: 433MHz Wireless Function:</p> <ul style="list-style-type: none">◆ Support: Kyorugi.◆ Scoring: can add 1-4 points for the player.◆ With vibration alerts while scoring.◆ Wireless communication distance up to 20m.◆ With long standby function.



3.4 E-Body Protector

Products	Details
E-Body Protector	<p>Type: KS-TKEP-EP</p> <p>Size: #0 /Height 110-130cm #1/ Height 130-155cm #2/ Height 155-165 cm #3/ Height 165-175 cm #4/ Height 175-185 cm</p> <ul style="list-style-type: none">◆ Sense the electronic shackle.◆ Sense the intensity of different strike.



3.5 E-Helmet

Products	Details
E-Helmet	<p>Type: KS-TKEP-EH</p> <p>Size: S/M/L</p> <p>Color: Blue / Red</p> <p>Material: PU leather</p> <p>Function:</p> <ul style="list-style-type: none">◆ Sense the hit of the E-Foot Protector. Scoring automatically.◆ Use energy-efficient materials to prevent athletes from being injured.◆ Wireless communication.



3.6 E-Foot Protector

Products	Details
E-Foot Protector	<p>Type: KS-TKEP-EF</p> <p>Size: #S/Eur 34-35 #M/Eur 36-38 #L/ Eur 39-41</p> <ul style="list-style-type: none">◆ Must be used together with Taekwondo Electronic Body Protector or Electronic Helmet.◆ Sense the intensity of different strike from foot.



3.7 Court Management Server

Products	Details
Court Management Server	<p>Type: KS-CMS-G</p> <p>Size: 130x90x45(mm)</p> <p>Weight: 0.5KG</p> <p>Features:</p> <ul style="list-style-type: none">● Multi-court arrangement, auto generate the order form.● Multi-project arrangement, make the schedule more smoothly.● Monitor the status of each court in real time, including the current field, rotation and player info.● Court adjustment, can manually modify the match court and session info.● Summary and print integrated report.

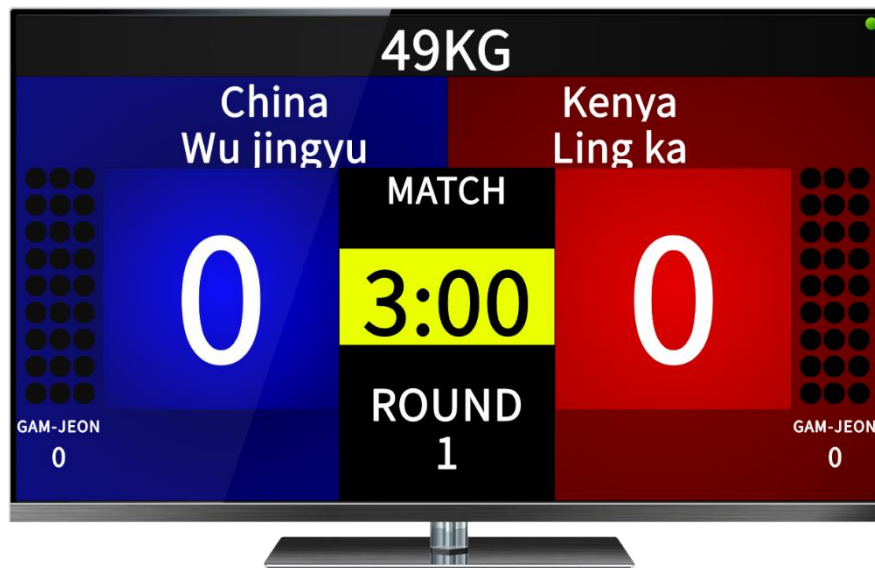


3.8 Score Display Controller

Products	Details
Score Display Controller	<p>Type: KS-DPC-G</p> <p>Size: 142*87*62(mm)</p> <ul style="list-style-type: none">◆ In multi-court mode, used to display the information of the score, players and set for each court.◆ Output: 1920×1080◆ Output score display to one LCD monitor.



Display interface of Taekwondo Kyorugi



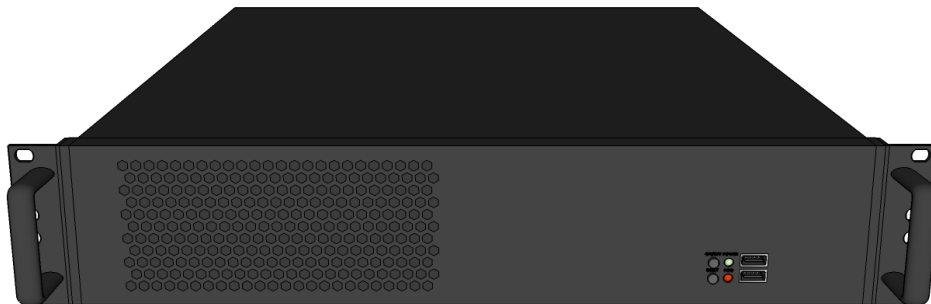
Device parameters

Model	KS-DPC-G
Platform	Freescle
Chassis	
Color	Black
Dimension	142mm × 87mm × 62mm (W×D×H)
Material	Aluminium alloy
CPU	Freescle Cortex™-A9 i.MX 6 series (Single-core/dual-core/ Quad Core CPUs)
Memory	Onboard 1GB/2GB DDR3 800MHz RAM
Storage	
Flash	Onboard 4GB/8GB iNAND flash
TF/HDD	1x SATA2,1x Micro SD(determined by the CPU model, optional)
System	
LAN	10/100/1000Mbps ,1x LAN,1x USB-WIFI, 3G (optional)
USB2.0	2x USB2.0 on front panel ,1x USB OTG
Serial Port	5X 4 -wire serial port, COM2: RS422/485
Display	1x HDMI, 1x VGA
Audio	1x Mic, 1x Headphone
Power	
Power Supply	DC +12V Power Adapter
Reliability	
Installation	Desktop Installation or Wall mount

Operating Temperature	-20°C~60°C
Storage Temperature	-40°C~80°C
Relative Humidity	5%~95%, relative humidity, non-condensing
Vibration Test	0.5grms/5~500Hz/random operating
EMC	CE/FCC Class B

3.9 Video Arbitration Server

Products	Details
Video Arbitration Server	Type: KS-PARROT-2C/4C/6C/8C Video Input: 2/4/6/8 channels input synchronously; Input port: SDI; Output port: DP*2; Video Format: 1080P; Recording capacity: ≥ 10 hours; Multi-screen monitoring: supported; Weight: 8kg.



Software interface



Device Specification

Type	KS-PARROT-2C/4C/6C/8C
Size	485x480x90(mm)
Net Weight	8 KG
Color	Black
Cabinet	Iron
Interface	
Input	SDI*2/4/6/8
Output	DP*2
Environmental	
Operating Temp	-5°C~45°C
Storage Temp	-40°C~80°C
Relative Humidity	5%~95%, non-condensing
Input Voltage	AC 100V~240V
Functions	
<ul style="list-style-type: none">● Nonstop video recording in the background: 2/4/6/8 channels of HD video are recorded simultaneously in the background, nonstop for 10 hours. Video retrieval and playback is unaffected.● Synch-playback of multi-channel video: Supports playback mode of single channel video in full screen and multi-angle video in 2/4/6/8 windows.● Speed change in slow motion: support 50 frame/s video playback and capture motion in a grid of 0.02s.● Video event query: video stream can be divided into several video events, storing in the event list, which can be renamed for retrieve easily.● Video segment marker: Important or controversial moments can be marked in video stream which will be replayed quickly when clicking the marked records.● Video signal output: provides 2 video output signals, one of which is for preview, the other of which can be connected to LED/LCD display for live slow motion replay.	

3.10 Control Panel

Products	Details
Control Panel	<p>Type: KS-PARROT-CP</p> <p>Function:</p> <ul style="list-style-type: none"> ◆ Support one touch replay, deferred replay, in/out replay. ◆ Preset speed button. ◆ T-Bar for dynamic slow motion. ◆ Professional dynamic jog wheel. ◆ Key to mark the last 10s/20s of the video content. ◆ Flexible select the marked video and playback.



Device Specification

Type	KS-PARROT-CP
Size	365 x 200 x 98 (mm)
Net Weight	1 KG
Cabinet	Iron
Display	Color LCD(4.3Inch)
Sound	None
Communication	
USB	≤5m
RS232	≤10m
Environmental	
Operating Temp	-5~45°C
Relative Humidity	5~95 %, non-condensing
Storage Temp	-40~80°C
Input Voltage	AC 100V-240V
Total Power	15W

3.11 HD Camera

Products	Details
HD Camera	Type: KS-PARROT-CAMERA



Device Specification

Product Type	KS-PARROT-CAMERA
Image sensor	SONY 1/2.8 inch Progressive CMOS
Effective pixels	3.1 million pixels
Signal System HD	1080p60/50, 1080p30/25, 1080i60/50, 720p60/50
Signal system	PAL/NTSC
Lens	12x optical zoom, f=3.9mm (wide angle) ~46.8mm (distal)
Horizontal view angle	72.5° (wide angle) ~7.4° (distal)
Aggregation mode	Auto / Manual
Minimum illumination	0.1Lux

Shutter speed	1/1~1/10000S
Gain	Auto / Manual
White balance	Auto / Manual / Indoor / Outdoor
Image effect	Color / Black & White / Electron flip
S/N ratio	≥50dB
Horizontal shaking	355° (Maximum velocity 80°/s)
Pitching shaking	-30°~30° (Maximum velocity 60°/s)
Presetting bit	9 remote control and keyboard can set up to 200
Video output HD	HDMI、 3G-SDI、 USB2.0、 USB3.0、 RJ-45
Audio input	3.5mm LINE-IN
Power	12V DC (10.8~13.0V DC)
Operating temp	0°C~40°C
Storage temp	-20°C~60°C
Size	164x148x173mm
Power consumption	12W (DC 12V)
Weight	1050g
Color	Silver

4. Scene photos

