



## Scoring & Timing Solution for Climbing



## 1. Introduction

This is a professional solution for LED scoreboard display in gymnastics competition.

The system functions conform to international competition rules.

Match arrangement, real-time scoring & timing display, players' & referees' info display, rank statistics export & print, slow motion video record & playback, and advertising display can be realized through the coordination of Match Scoring System, Meet Management System, Video Arbitration System, etc.

Applicable rules of the system:

- 《IFSC Rules 2022 v2.0》



## 1.1 System Architecture

The whole system is composed of several subsystems, including: Match Scoring System and Meet Management System.

Each subsystem can not only work independently, but also work together to share the data.

It is flexible for customers to configure according to the actual application.

- **Match Scoring System**

Match Scoring System named ULTRA SCORE is composed of Ultra Score Software, Referee Scoring Software, SCB Viewer, Wireless Score Tablet, etc.

It is mainly operated by the referees to realize the scoring and timing work and real-time scoreboard display.

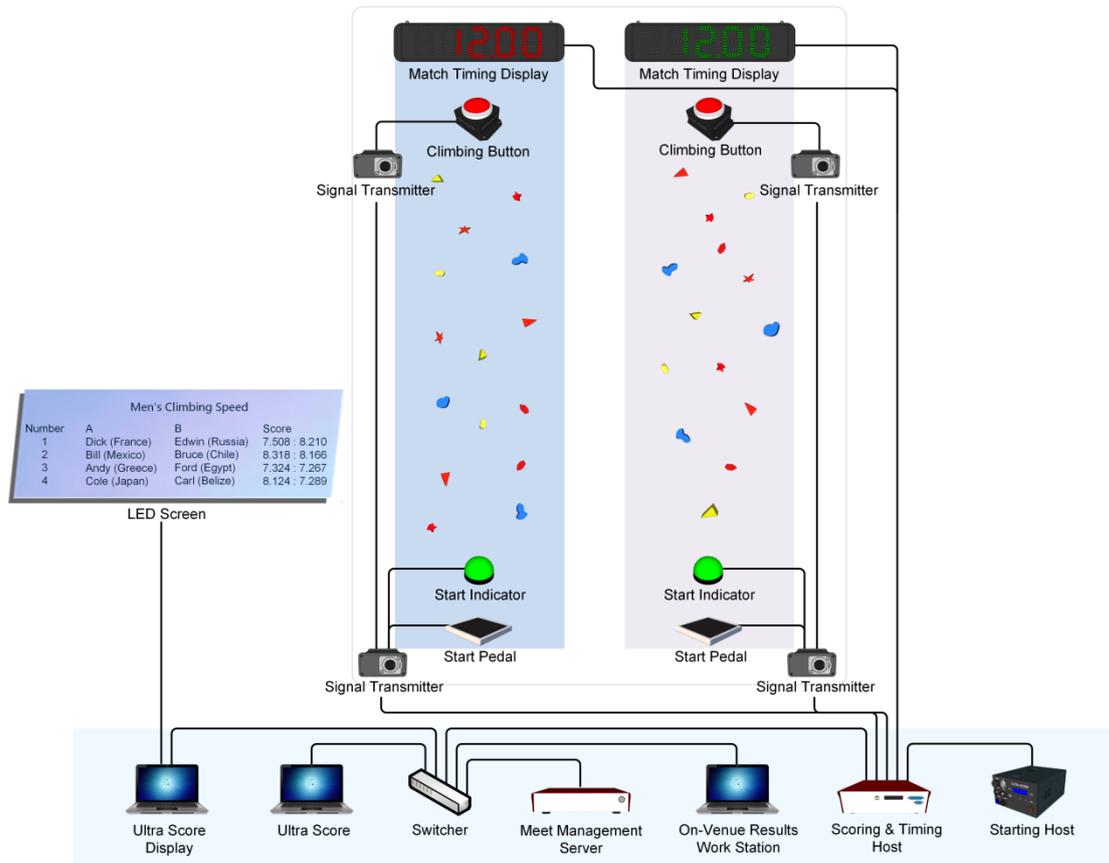
- **Meet Management System**

It is composed of Meet Management Server, On-Venue Results Workstation, Printer, etc.

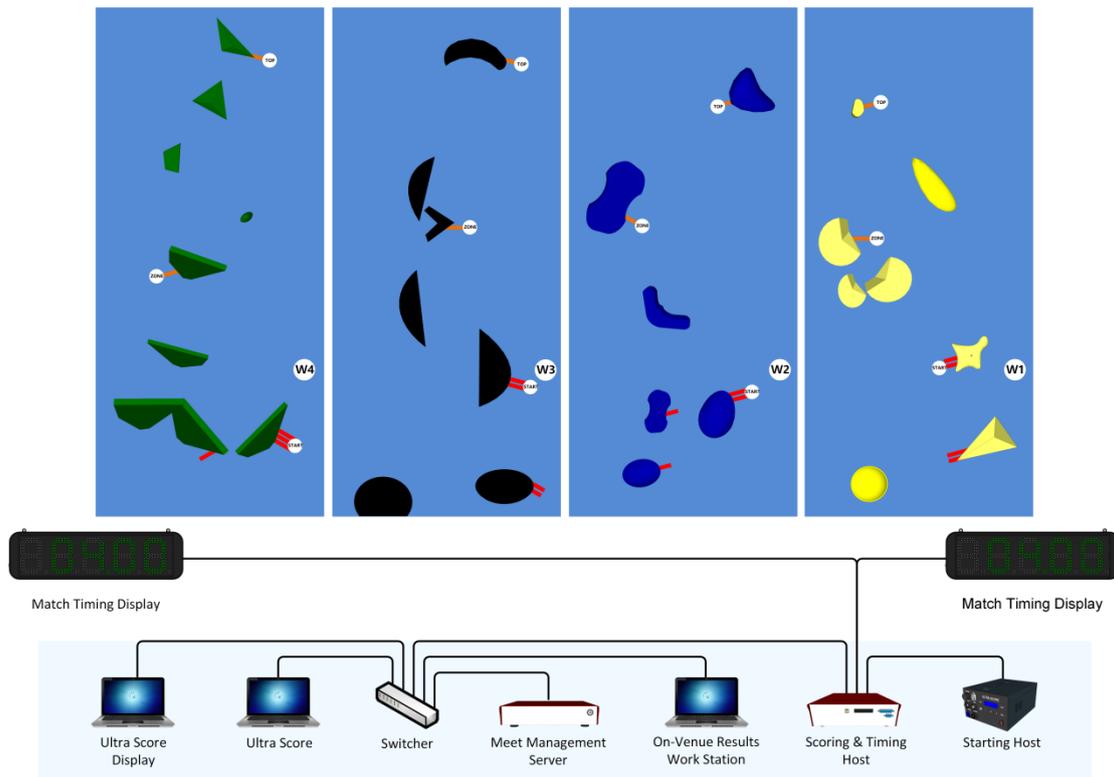
Linking with Online Registration System and Match Scoring System, it can realize: participants management, match schedule, result management, court arrangement, rank statistics, etc.

## 1.2 System Structure

### Rock-climbing:



## Boulder:



### System Description

- 1) **LAN:** A LAN is set up in the stadium. Connect the LED control PC, Ultra Score Terminal PC, Match Scoring & Timing Host, Referee Scoring & Timing Terminal, Meet Management Server, On-Venue Results Workstation and Printer to the LAN.
- 2) **LED Screen:** One or two LED screens are controlled by separate computers which connect with LED sending cards. Both of the LED screens can show the same contents or different contents as required.
- 3) **Starting Host:** It is installed in the court side referee seat, connect the control software computer through wired network to start timing. It has command sound effect and microphone function.
- 4) **Start Pedal:** It is installed at the starting point of the track. It can be connected to the Scoring & Timing Host and synchronized with the Start Indicator and detect departure status.
- 5) **Start Indicator:** It is installed at the starting point of the track, prompt to start and false start.
- 6) **Signal Transmitter:** It is installed at the beginning and end of the track to transmit start and end signals.
- 7) **Climbing Button:** It is installed at the end of the track. It can be connected to the scoring software and timing can be stopped.
- 8) **Climbing Match Timing Display:** It is installed above the end of the track, the competition time is displayed synchronously, and the two-color display prompts the competition status.
- 9) **Meet Management Server:** It is the core data processing equipment which is installed in the Technical Table and connected to the LAN by network cable.



**Kazo Vision**

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### 1.3 Product Configuration (For one court/Double track)

Product	Type	Qt.
<b>Match Scoring System</b>		
Ultra Score Software	ULTRASCORE STANDALONE	1
Start Pedal	KS-CLM-STARTER	2
Start Indicator	KS-START-INDICATOR	2
Climbing Button	KS-CLM-TERM	2
Signal Transmitter	KS-CLM-TRANSMITTER	4
Match Timing Display	KS-SCRN-7SEGMENT	2
Starting Host	KS-START	1
Scoring & Timing Host	KS-MONSTER	1
Meet Management Server	KS-MMS-MINI	1
PC	/	2
Printer	/	1

## 2. Specification for products

### 2.1 Ultra Score Software

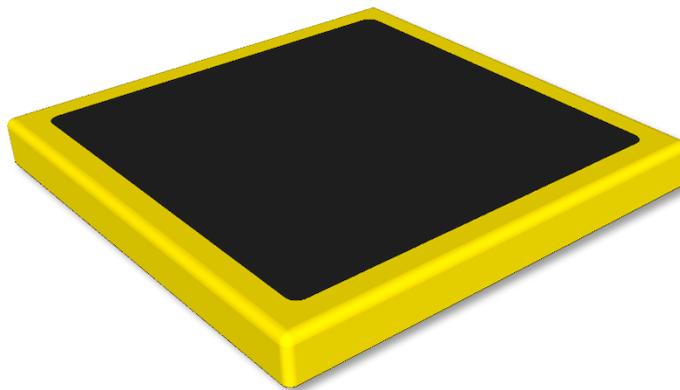
Products	Details
Ultra Score	<ul style="list-style-type: none"><li>◆ Standalone edition</li><li>◆ Supports: Rock-climbing, Boulder, Difficulty-climbing</li><li>◆ English version</li><li>◆ Including 1 dongle</li></ul>

#### Scoring interface for gymnastics:

Men's Climbing Speed			
Number	A	B	Score
1	Dick (France)	Edwin (Russia)	7.508 : 8.210
2	Bill (Mexico)	Bruce (Chile)	8.318 : 8.166
3	Andy (Greece)	Ford (Egypt)	7.324 : 7.267
4	Cole (Japan)	Carl (Belize)	8.124 : 7.289

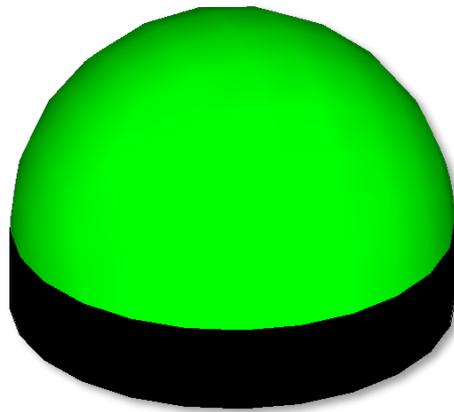
## 2.2 Climbing Start Pedal

Products	Details
Climbing Start Pedal	<p>Type: KS-CLM-STARTER Size: 300x300x300 (mm) Material: Iron Functions:</p> <ul style="list-style-type: none"><li>◆ It can be connected to the Match Scoring &amp; Timing Host.</li><li>◆ It can be synchronized with the Start Indicator and detect departure status.</li></ul>



### 2.3 Climbing Start Indicator

Products	Details
Climbing Start Indicator	Type: KS-START-INDICATOR Diameter: 50 (mm) Weight: 0.08 KG Material: ABS+PC Voltage: DC 12V Functions: ◆ Prompt to start and false start.



## 2.4 Climbing Button

Products	Details
Climbing Button	<p>Type: KS-CLM-TERM Size: 100x100x55 (mm) Material: PVC + Aluminum</p> <p>Functions:</p> <ul style="list-style-type: none"><li>◆ It can be connected to the scoring software and timing can be stopped.</li></ul>



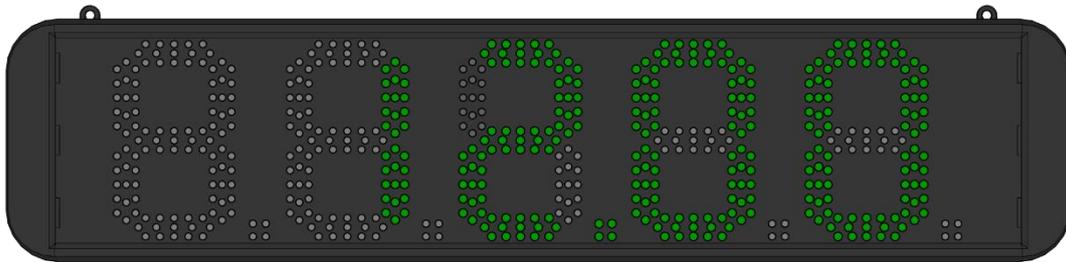
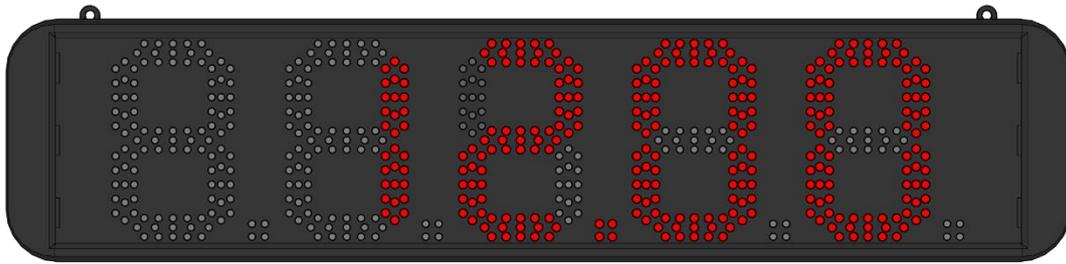
## 2.5 Signal Transmitter

Products	Details
Signal Transmitter	Type: KS-CLM-TRANSMITTER Size: 130x70x30 (mm) Interface: G-Port*1 Material: PVC + aluminum Functions: <ul style="list-style-type: none"><li>◆ Transmit start and end signals.</li></ul>



## 2.6 Climbing Match Timing Display

Products	Details
Climbing Match Timing Display	<p>Type: KS-SCRN-7SEGMENT</p> <p>Size: 620x190x45 (mm)</p> <p>Weight: 0.6 kg</p> <p>Material: Aluminum Alloy</p> <p>Accessories: Including fixing bracket.</p> <p>Functions:</p> <ul style="list-style-type: none"><li>◆ It can be connected to the scoring software.</li><li>◆ The competition time is displayed synchronously, and the two-color display prompts the competition status.</li></ul>



## 2.7 Starting Host

Products	Details
Starting Host	<p>Type: KS-START Size: 355 x 250 x 160 (mm) Accessories: Handheld starter*1 Weight: 6.4kg Interfaces: Ethernet port*1, serial port*1, power interface *1, audio port*1, handheld transmitter interface*1 Voltage: DC 12V Functions:</p> <ul style="list-style-type: none"><li>◆ Connect the control software computer through wired network to start timing.</li><li>◆ It has command sound effect and microphone function.</li></ul>



## 2.8 Match Scoring & Timing Host

Products	Details
Match Scoring & Timing Host	<p>Type: KS-MONSTER            Size: 260*280*80mm            Weight: 3KG            CPU: Intel J3160            RAM: 8GB            Hard disk: 64G            Communication: Network RJ45*2            Video Output: VGA*1, DP*1            Port: G-Port*8, 24S port*2, Audio*1, USB*2, Serial port*1            Accessories: Match Timer Handheld*1, Attack timer Handheld*1</p> <ul style="list-style-type: none"> <li>◆ It can realize the detection of false start, single track or double track timing, and the reception of transmission module signals, etc.</li> <li>◆ Supports match rule setup.</li> <li>◆ Synchronously control the Climbing Match Timing Display.</li> <li>◆ Provides buzzer sound output, which can be connected to the venue's public address system or speakers.</li> <li>◆ Supports hot switching of the main and backup servers. In case of the main server fails, just manually switch to the backup server to ensure the data intact. And in case of power failure, the previous screen will be restored after restarting.</li> <li>◆ Supports the post-match celebration mode.</li> <li>◆ Supports real-time data output, which can be used for live broadcast.</li> <li>◆ Monitoring the status of scoring devices, providing convenient fault diagnosis (with a separate monitor).</li> <li>◆ Anti-loose port ensure the safety of match data.</li> </ul>

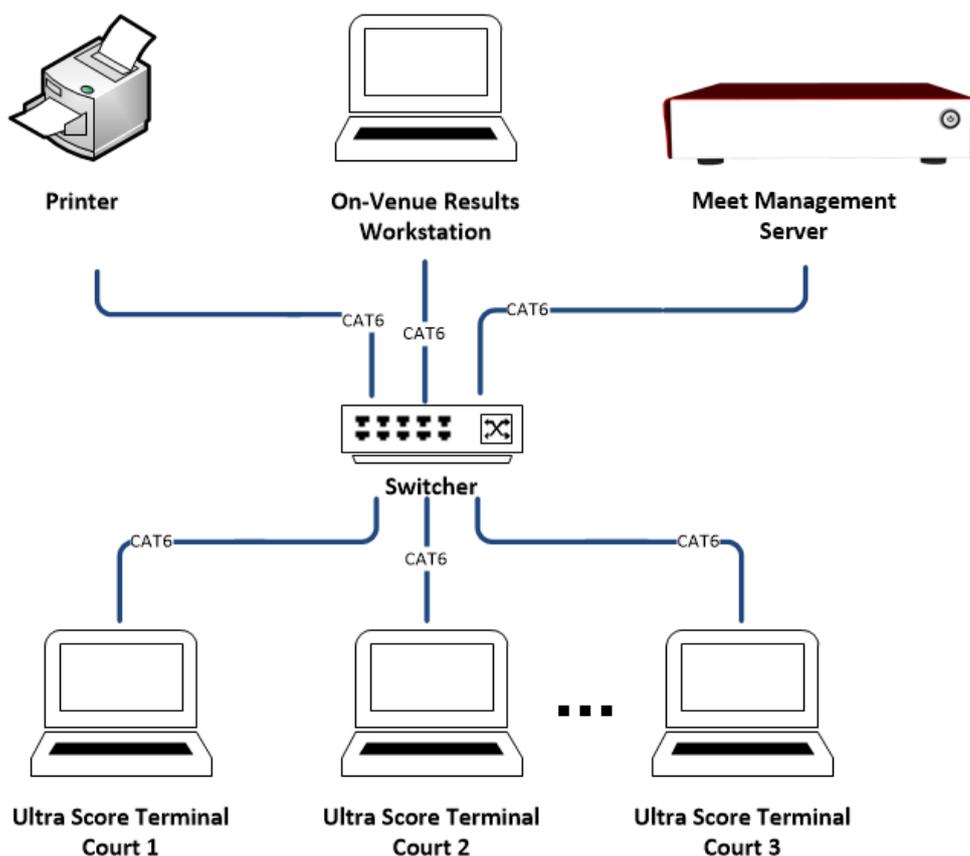


## 2.9 Meet Management System

It is composed of Meet Management Server, On-Venue Results Workstation, Printer, etc. Linking with Online Registration System, Match Scoring System and Basketball Stats System, it can realize:

- 1) **Participants Management:** Information management of players, teams and referees. Both import and input registration form are available. And auto generate the order form.
- 2) **Match Schedule:** Auto draw the players' lots. Multi-project arrangement make the schedule more smoothly. Auto generate the bracket, order form and round form.
- 3) **Result Management:** Receive or record the results. Determine the players' rank, admission or elimination at each stage. Print the results announcement and send to the LED display system, TV broadcasting system and comprehensive meet manage system.
- 4) **Technical Statistics Arrangement:** Combine with the basketball stats software, it can summarize the info of teams' score, teams' timeout, teams' foul, players' substitution, players' foul, players' comprehensive results, and generate the integrated report.

### 2.9.1 System Diagram



## 2.9.2 Meet Management Server

Products	Details
<b>Meet Management Server</b>	<p>Type: KS-MMS-MINI Size: 170x150x35 (mm) Weight: 1.0 KG</p> <p>Features:</p> <ul style="list-style-type: none"><li>● Multi-court arrangement, auto generate the order form.</li><li>● Multi-project arrangement, make the schedule more smoothly.</li><li>● Monitor the status of each court in real time, including the current field, rotation and player info.</li><li>● Court adjustment, can manually modify the match court and session info.</li><li>● Summary and print integrated report.</li></ul>

