



## Scoring & Timing Solution for Marathon





## Introduction

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The innovation of transponder timing system solves the international problem for thousands people timing, it brought the leap for international sports timing. The innovation of this technology reduces the judges that needed in the events; lighten the tedious management task, save the labor cost.

## Application

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School games, long distance race, physical fitness, daily training and test in club, daily training or race in troops and military colleges , race walking, marathon, triathlon, relay race, cycling, motor racing, country cross, karting, ect.



## System

Transponder timing system includes timing device, timing mat, and transponder and race management software.

### Timing device



|                     |   |
|---------------------|---|
| Voltage             | DC 12V, maximum: 4A   |
| Battery             | Inside with charging battery, support for 6 hours working   |
| Connection          | can connect 1pcs 5m timing mat or 2pcs 2.5m timing mat  |
| Protocol            | reliable multiple transponder reading anti-interfere protocol   |
| Pilot light         | power, battery, transmitting, transponder reading and others  |
| Receiving interface | DSP reinforced receiving unit, anti-interfere module external starting interface, synchronize start button, auto antenna tuning |
| Transponder reading | support USB flash to read data  |
| Transmit            | Ethernet interface to transmit data and time synchronously  |
| Design              | water-proof, dust free  |
| Size                | 34cm*22cm*44cm  |
| Weight              | 13.9Kg  |

### Timing mat

- ◇ Convenient to place
- ◇ Sturdy, water-proof, anti-skidding, electrostatic prevention, anti-interfere design
- ◇ Multiple core cable and 3 way connector to transmit signal
- ◇ RG58 cable and BNC connector to receive signal
- ◇ no need external power



### Transponder

- ◇ The working height of transponder is more than 0.7m
- Data transmit is more than 128kbit/s
- ◇ Each transponder is programmed by a unique 64 bit ID
- ◇ Water proof, anti-UV design
- ◇ Reliable anti-interfere protocol
- ◇ Temperature: -40°C~+80°C
- ◇ Size : 45mm\*57mm\*1.3mm



### Race management software

The screenshot shows the Vsports software interface with a menu bar (System, Game, Sporters, Schedule, Timing, Result, Server, Reconnect) and a main window for a 5 Kilometers race. The race is currently in progress, with a timer showing 00:17:50. The results table lists 21 participants, all from the 'Wan Ke' unit, with their respective lane, bib number, rank, and finish time.

| Dr... | Event        | Status | Trigger Time            | Order | Lane | Bib | Name | Unit   | Rank | Result | Begin Time              | Start | Finish     |
|-------|--------------|--------|-------------------------|-------|------|-----|------|--------|------|--------|-------------------------|-------|------------|
| 1     | 5 Kilometers | Timing | 2015-01-04 14:42:47.660 | 1     | 1    | 1   | 1    | Wan Ke | 23   | 16:43  | 2015-01-04 14:42:47.660 |       | (23) 16:43 |
| 2     |              |        |                         | 2     | 2    | 2   | 2    | Wan Ke | 1    |        | 2015-01-04 14:42:47.660 |       | (1) 15:53  |
| 3     |              |        |                         | 3     | 3    | 3   | 3    | Wan Ke | 34   | 16:58  | 2015-01-04 14:42:47.660 |       | (34) 16:58 |
| 4     |              |        |                         | 4     | 4    | 4   | 4    | Wan Ke | 9    | 16:18  | 2015-01-04 14:42:47.660 |       | (9) 16:18  |
| 5     |              |        |                         | 5     | 5    | 5   | 5    | Wan Ke | 33   | 16:57  | 2015-01-04 14:42:47.660 |       | (33) 16:57 |
| 6     |              |        |                         | 6     | 6    | 6   | 6    | Wan Ke | 32   | 16:56  | 2015-01-04 14:42:47.660 |       | (32) 16:56 |
| 7     |              |        |                         | 7     | 7    | 7   | 7    | Wan Ke | 6    | 16:12  | 2015-01-04 14:42:47.660 |       | (6) 16:12  |
| 8     |              |        |                         | 8     | 8    | 8   | 8    | Wan Ke | 35   | 16:59  | 2015-01-04 14:42:47.660 |       | (35) 16:59 |
| 9     |              |        |                         | 9     | 9    | 9   | 9    | Wan Ke | 8    | 16:16  | 2015-01-04 14:42:47.660 |       | (8) 16:16  |
| 10    |              |        |                         | 10    | 10   | 10  | 10   | Wan Ke | 37   | 17:00  | 2015-01-04 14:42:47.660 |       | (37) 17:00 |
| 11    |              |        |                         | 11    | 11   | 11  | 11   | Wan Ke | 7    | 16:15  | 2015-01-04 14:42:47.660 |       | (7) 16:15  |
| 12    |              |        |                         | 12    | 12   | 12  | 12   | Wan Ke | 36   | 17:00  | 2015-01-04 14:42:47.660 |       | (36) 17:00 |
| 13    |              |        |                         | 13    | 13   | 13  | 13   | Wan Ke | 2    |        | 2015-01-04 14:42:47.660 |       | (2) 15:55  |
| 14    |              |        |                         | 14    | 14   | 14  | 14   | Wan Ke | 24   | 16:45  | 2015-01-04 14:42:47.660 |       | (24) 16:45 |
| 15    |              |        |                         | 15    | 15   | 15  | 15   | Wan Ke | 31   | 16:54  | 2015-01-04 14:42:47.660 |       | (31) 16:54 |
| 16    |              |        |                         | 16    | 16   | 16  | 16   | Wan Ke | 5    | 16:11  | 2015-01-04 14:42:47.660 |       | (5) 16:11  |
| 17    |              |        |                         | 17    | 17   | 17  | 17   | Wan Ke | 3    |        | 2015-01-04 14:42:47.660 |       | (3) 15:56  |
| 18    |              |        |                         | 18    | 18   | 18  | 18   | Wan Ke | 39   | 17:02  | 2015-01-04 14:42:47.660 |       | (39) 17:02 |
| 19    |              |        |                         | 19    | 19   | 19  | 19   | Wan Ke | 16   | 16:32  | 2015-01-04 14:42:47.660 |       | (16) 16:32 |
| 20    |              |        |                         | 20    | 20   | 20  | 20   | Wan Ke | 4    | 16:10  | 2015-01-04 14:42:47.660 |       | (4) 16:10  |
| 21    |              |        |                         | 21    | 21   | 21  | 21   | Wan Ke | 38   | 17:02  | 2015-01-04 14:42:47.660 |       | (38) 17:02 |

At the bottom right of the interface, the text '本場连接正常' (Main field connection normal) is visible.

1. support timing for multiple events and start in different teams
2. summary different results from different timing device in real time by internet
3. Save results to hard disk in real time
4. Support results output in real time

## How to use this system

### 1. Timing device



This shows the connection of the timing device:

- ◇ Connect the transmitting cable to TX-A;
- ◇ Connect the receiving cable to RX-A;

Please do not cross each other.

Each unit timing device can connect 2pcs timing mat.

### 2. Place of timing mat



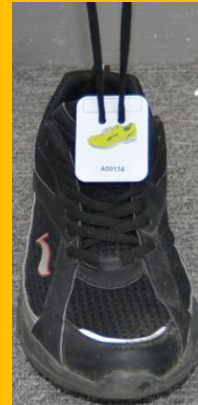
- ◇ The length of mat is 5m. If the finish line is 10m, you can connect 2pcs mat together;
- ◇ If you place the mat in different lines, the distance of each line should be 1m

### 3. How to wear the transponder

Step 1: Put the transponder into the shoelace;

Notes:

- ◇ Please try to make transponder level to ground;
- ◇ Adjust the tightness of shoelace, and make sure the tightness does not affect the running;



Step 2: knot the shoelace to fix transponder

Notes: please do not knot the shoelace too much, otherwise, it is easy for the transponder to deform and damage, besides, the timing device can not read the data from this runner when he/she passes the finish line.

Step 3: tie up your shoelace

Notes: when runner passes the finish line, please make sure that your foot which is wearing the shoes with transponder is on the mat, please do not cross the mat.

