



Impinj R2000 RFID

### Running race timing system

- R2000 4 ports reader**: A black rectangular device with four ports on the front.
- 12 dbi panel antenna**: A white square panel antenna.
- PVC shoe tag**: A small white tag attached to a black shoe.
- 6dbi mat antenna**: A black rectangular mat antenna.
- Dogbone foam tag**: A stack of white foam tags, one with the number 01256.
- ABS Triathlon tag**: A yellow and red tag attached to a triathlon shoe.



**For timing system, mainly have three solution as below:**

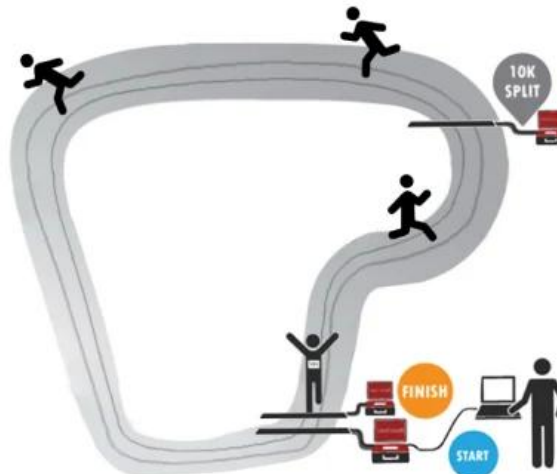
• Solution 1:

Start line and finish line at the same point, runner just run around the circular road for many times.



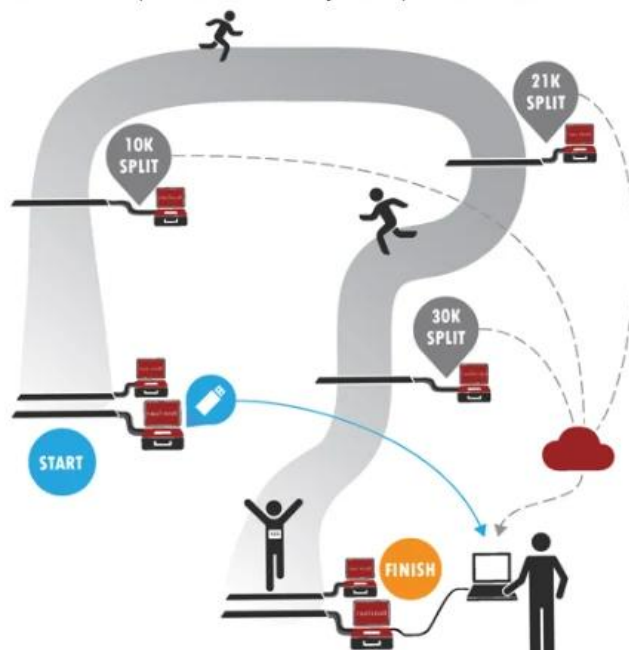
• Solution 2:

Start line and finish line at the same point, but there is one check point in the middle of the running road, runner also run around the circular road.



• Solution 3:

Start line and finish line at different point, there are many check points in the middle of the running road.



## System description for different solution:

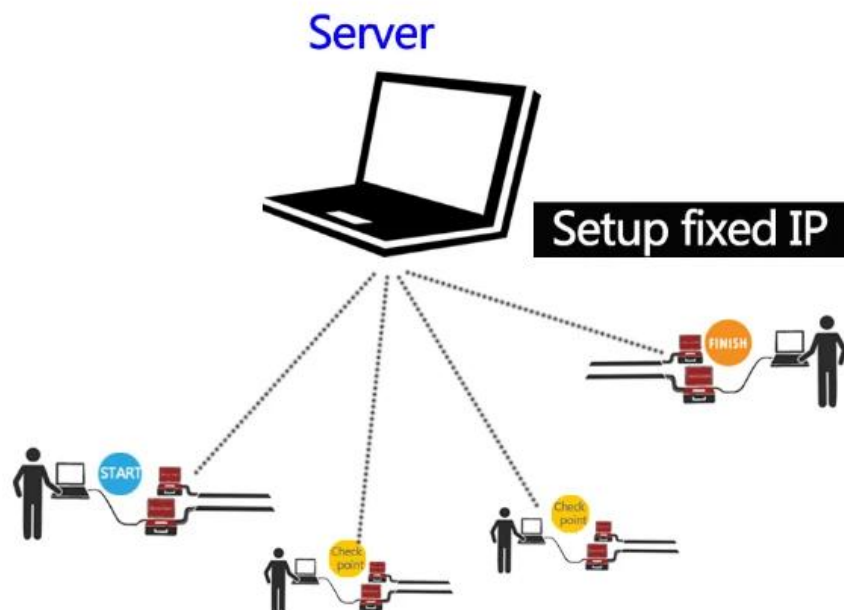
- Solution one:

Just need use one computer connect with reader at the start/finish line, install system on the computer, when reader detect tag, tag information can transfer to system directly.

- Solution two and three:

Can put the server in your company, set one fixed IP or same domain name, install many computer at different point (start /finish line, check point), install client server in the computer, after reader detect the tag, the information can transfer to head server, also can set tag information synchronization every 5s or 10s, then can check the runner information at different point.

## We can provide those system



## Follow are relative products can use for running race timing system:

Use our UHF RFID R2000 fixed reader connect with UHF floor mat antenna, install at start/finish line, check point, let runner fixed the sports tag on bib number or shoes, when runner pass the line, tag can be detected, then transfer to system, can use UHF desktop reader/writer to program runner information into tags.

## Follow are related products specification:



### UHF RFID R2000 fixed reader with four antenna ports

Frequency:UHF(865~868MHz/902~928MHz )

Protocol:ISO18000-6C(EPC GEN2)

Interface:RS232/RS485/RJ45

Antenna Port:4 antenna ports

With Impinj R2000 engine

Size:310\*210\*41mm



#### UHF RFID USB desktop reader/writer

Frequency:UHF(865~868MHz/902~928MHz )

Protocol:ISO18000-6C(EPC GEN2)

Work mode: read and write

Interface: USB



#### UHF floor mat antenna

Frequency;UHF(860~868MHz/902~928MHz)

Gain(dBi):6

Polarization: Vertical

Size:1100\*550\*30mm

Material: rubber



#### UHF 9dbi panel antenna

Frequency:902-928MHz,865~868MHz

Gain(dbi):9

Polarization:circular

Connector:N-female

Size:257\*257\*25mm



#### UHF PVC sports tag

Frequency:UHF

Chip type:UHF Alien H3

Material: Foam

Size:103\*30\*5mm

Stick on bib number



### UHF foam sports tag

Frequency:UHF

Chip type:UHF Alien H3

Material: Foam

Size:103\*30\*5mm

Stick on bib number



### UHF ABS ankle tag

Frequency:UHF

Chip type:UHF Alien H3

Size:55\*45\*12mm

Material:ABS

Wear on ankle



# SCENE APPLICATION



**RFID Unmanned Supermarket Management**

This application block features a central image of a supermarket aisle with produce. To the left, there are four small inset images: a yellow RFID tag, a black square tag, a roll of white tape, and a light blue square tag.



**RFID Vehicle Tracking Management**

This application block features a central image of a car at a toll booth. To the right, there are four small inset images: two white rectangular tags, a black square tag with a white logo, and a roll of white tape.



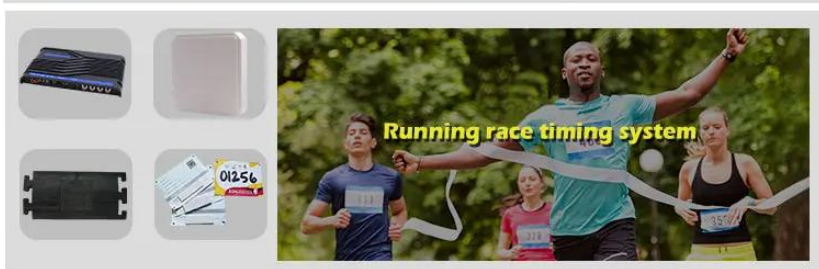
**Trash Can management system**

This application block features a central image of a yellow autonomous refuse truck. To the left, there are four small inset images: a white rectangular tag, a white square tag, a white rectangular tag, and a green and black strip.



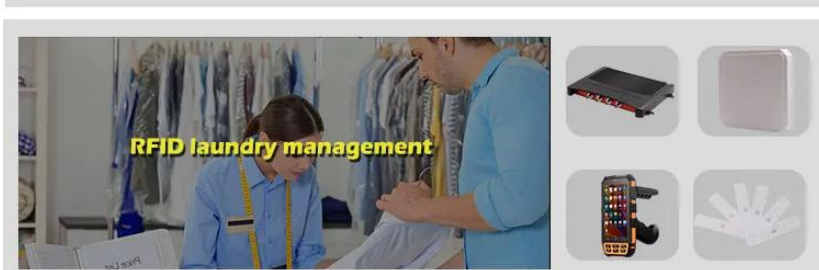
**RFID books management**

This application block features a central image of a library. To the right, there are four small inset images: a black square tag, a smartphone with an RFID reader, a white rectangular tag, and a white cylindrical tag.



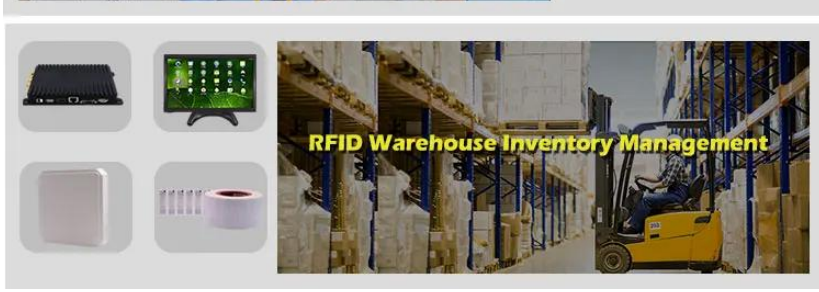
**Running race timing system**

This application block features a central image of runners at a race. To the left, there are four small inset images: a black rectangular tag, a white square tag, a black rectangular tag, and a white tag with the number 01256.



**RFID laundry management**

This application block features a central image of a laundry worker. To the right, there are four small inset images: a black rectangular tag, a white square tag, a smartphone with an RFID reader, and a white fan-shaped tag.



**RFID Warehouse Inventory Management**

This application block features a central image of a warehouse with a forklift. To the left, there are four small inset images: a black keyboard, a computer monitor displaying a grid, a white square tag, and a roll of white tape.



