Bluetooth Module

Model: ZYLY-F

Jiangxi Zhongyang Electrical Co. Ltd.

User manual

Version's history

Date	Version	Remarks
2024/1/23	1.0	
2024/2/27	1.1	Add warning

一、 Module overview

1. Chip introduction

The module uses the AC6956C chip of Zhuhai Jerry Technology Co., Ltd. as the core. It is a high-performance 32-bit DSP supports hardware Float Point Unit(FPU) that supports a maximum operating frequency of 2402-2480MHz.

2. Main features

Bluetooth version: V5.1+BR+EDR+BLE Specification
Operating Voltage: 2.2-5.5V
Bus interface: UART

3. Scope of application

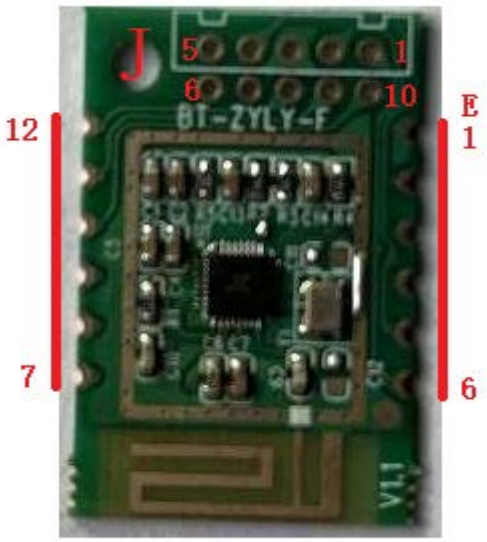
3.1 Classic Music Bluetooth
3.2 Bluetooth to serial port products: data transmission connection between treadmill and Kinomap APP or Zwift APP

4. Interface Protocol

UART

5. Pin Definition

Dimensions: 21.59mm x 32.4mm x 10mm



PIN No.	Name	Function	Description
E-1	GND	Power ground	

E-2	DP	USB D+	
E-3	DM	USB D-	
E-4	VDD	Power supply	+5V
E-5	RX	Serial port reception	BLE module data reception
E-6	TX	Serial port sending	BLE module data sending
E-7	LINR	Right channel input	
E-8	LINL	Left channel input	
E-9	ADKEY	Analog key detection	
E-10	DACR	Right channel output	
E-11	DACL	Left channel output	
E-12	AGND	Analog ground	
J-1	TX	Serial port sending	BLE module data sending
J-2	RX	Serial port reception	BLE module data reception
J-3	GND	Power ground	
J-4	VDD	Power supply	+5V
J-5	PWM	PWM output	Bluetooth heart rate
J-6	ADKEY	Analog key detection	
J-7	NULL	NULL	NC
J-8	AGND	Analog ground	
J-9	DACL	Left channel output	
J-10	DACR	Right channel output	

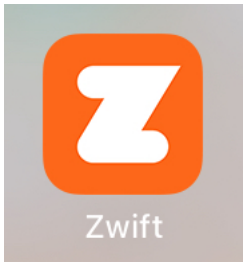
二、 Music bluetooth connection

Open the Bluetooth option in the phone settings, search for the music Bluetooth that displays SYMK, and click on the connection successfully. The music played on the phone will be transferred to the music Bluetooth output.

三、 BLE Bluetooth connection

an example: Zwift APP

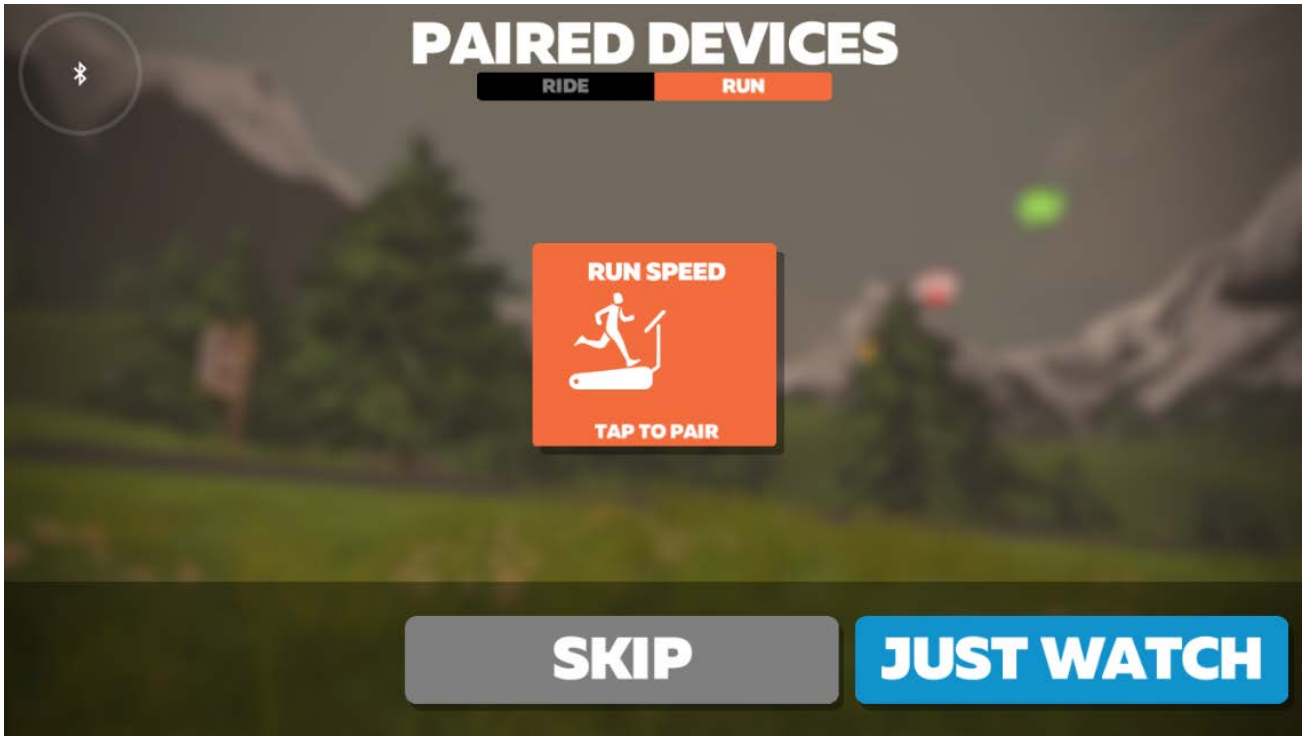
1. Find Zwift APP on your phone:

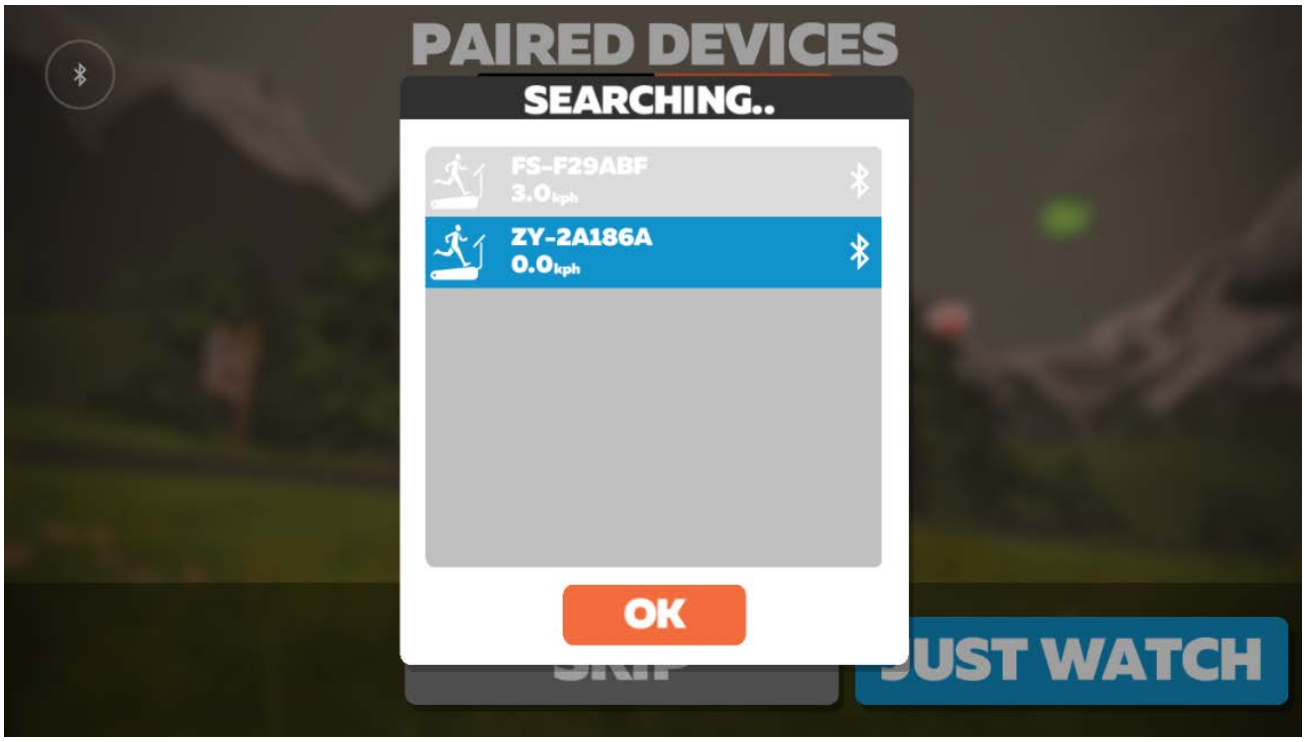


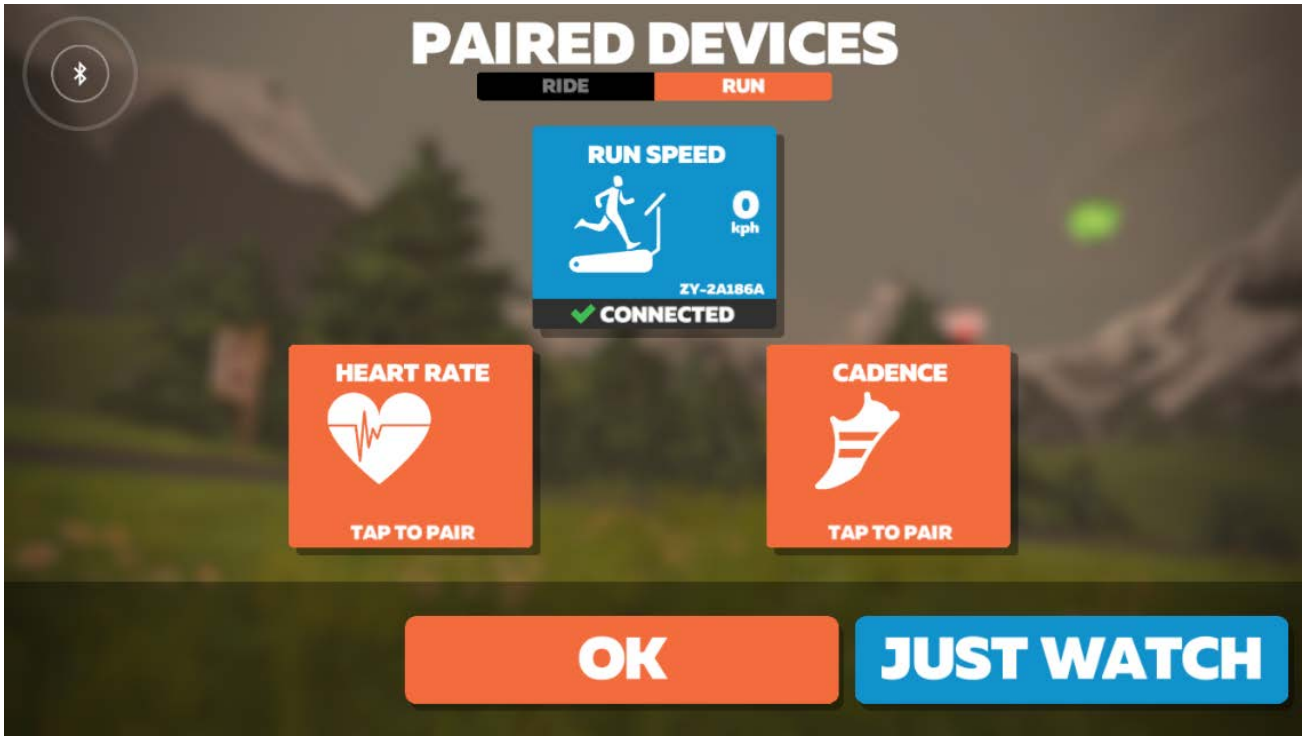
2. Run Zwift APP:

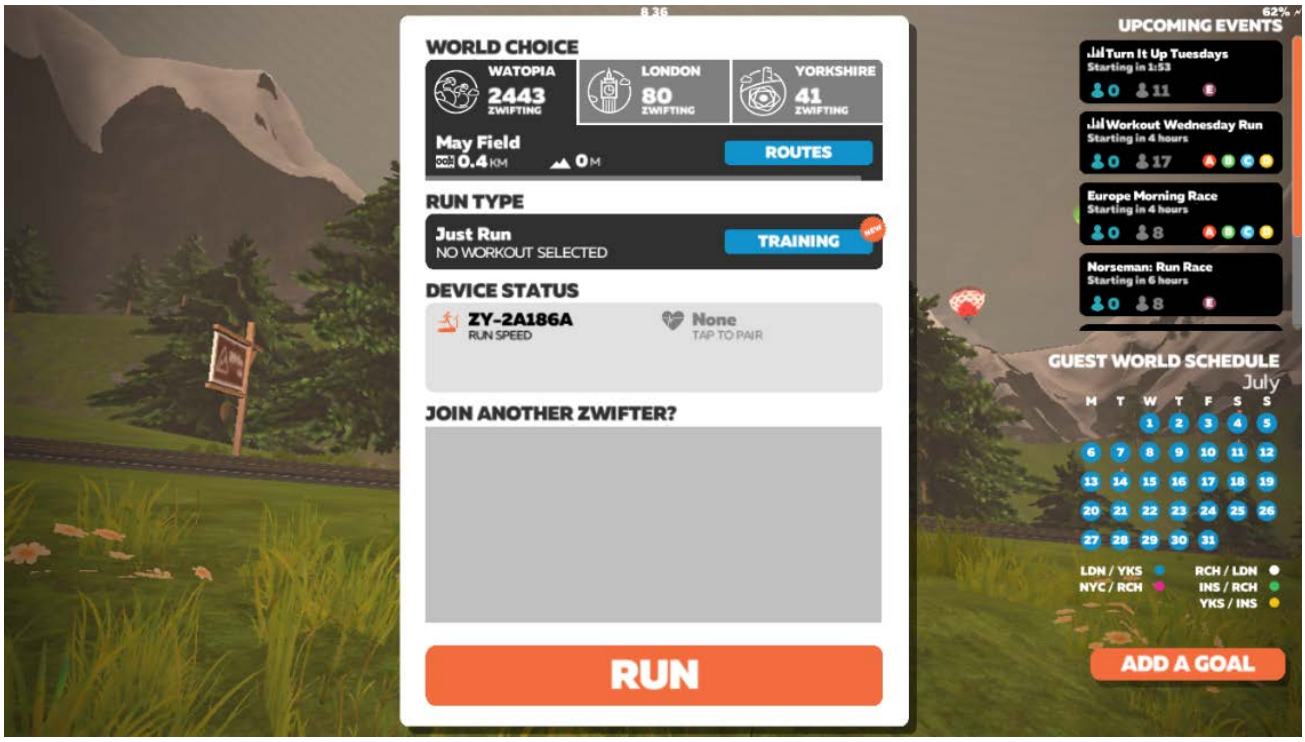
3. Select account login:

4. Select treadmill Bluetooth pairing:

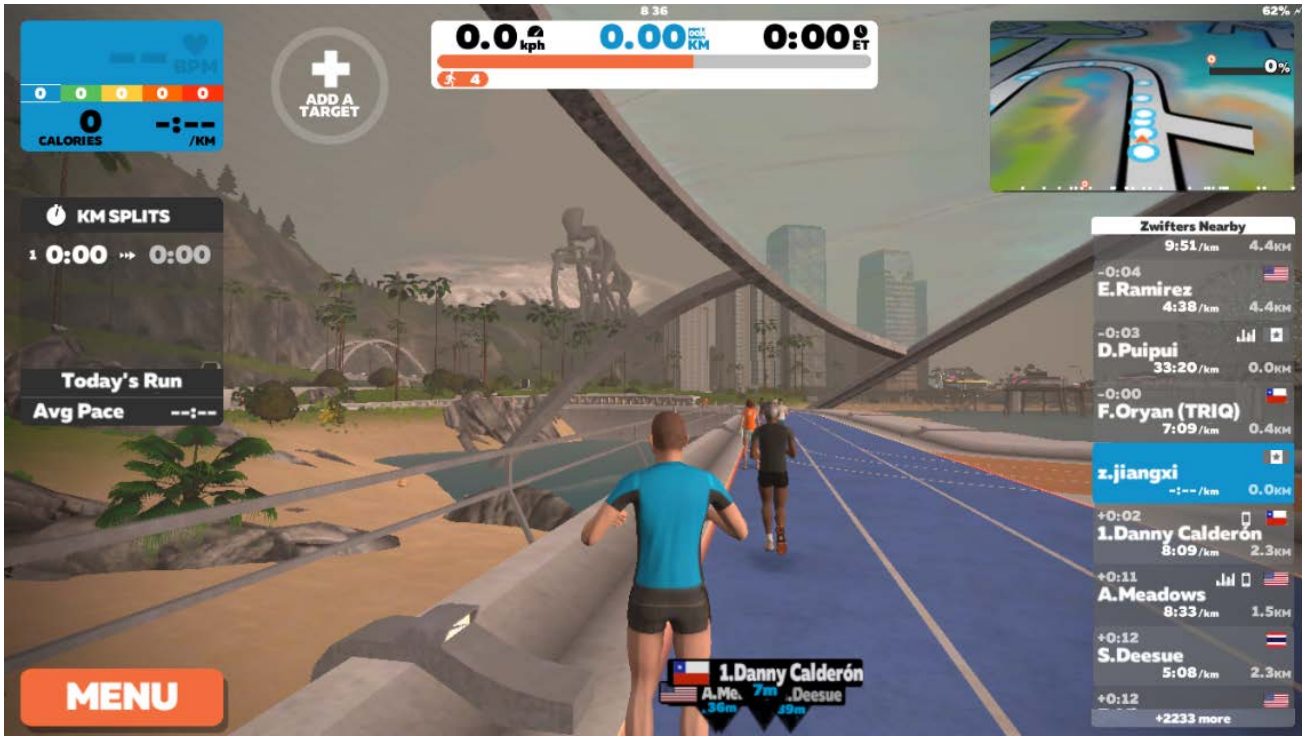

PAIRED DEVICES
RIDE
RUN
RUN SPEED
TAP TO PAIR
SKIP
JUST WATCH


PAIRED DEVICES
SEARCHING..
FS-F29ABF
3.0kph
ZY-2A186A
0.0kph
OK
JUST WATCH

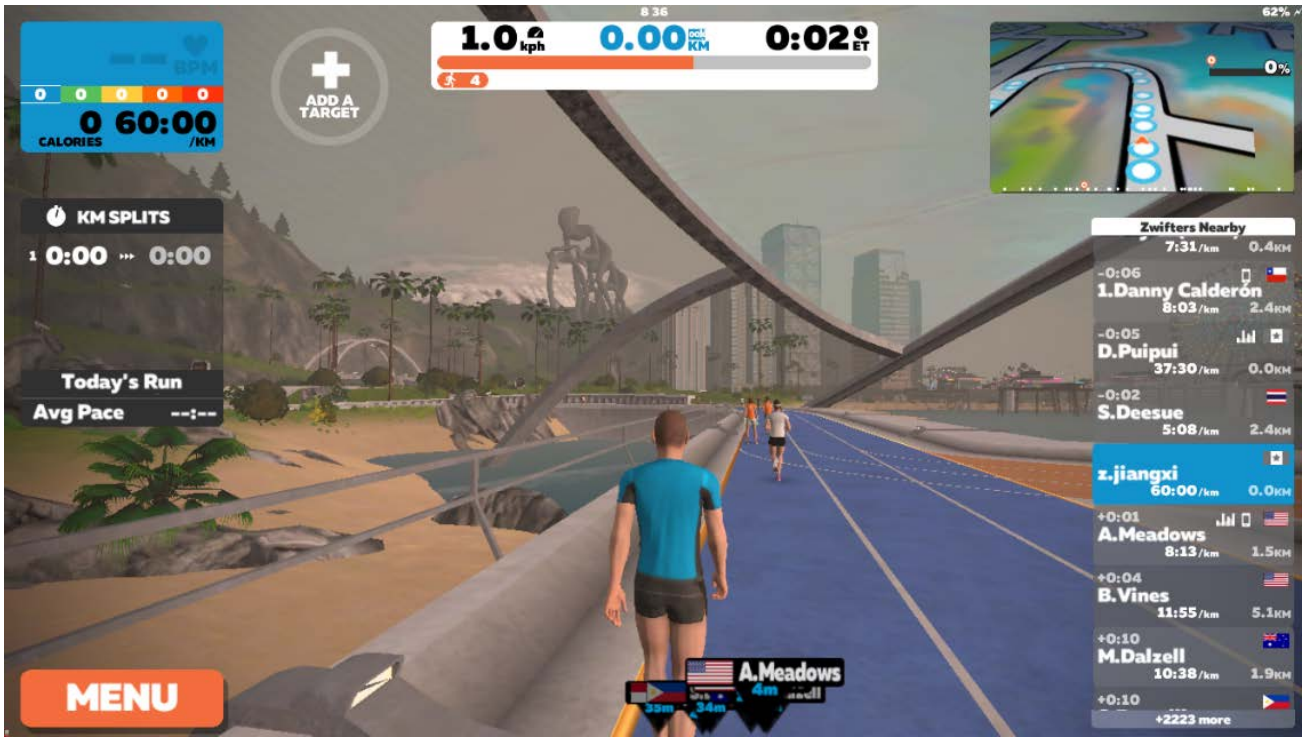




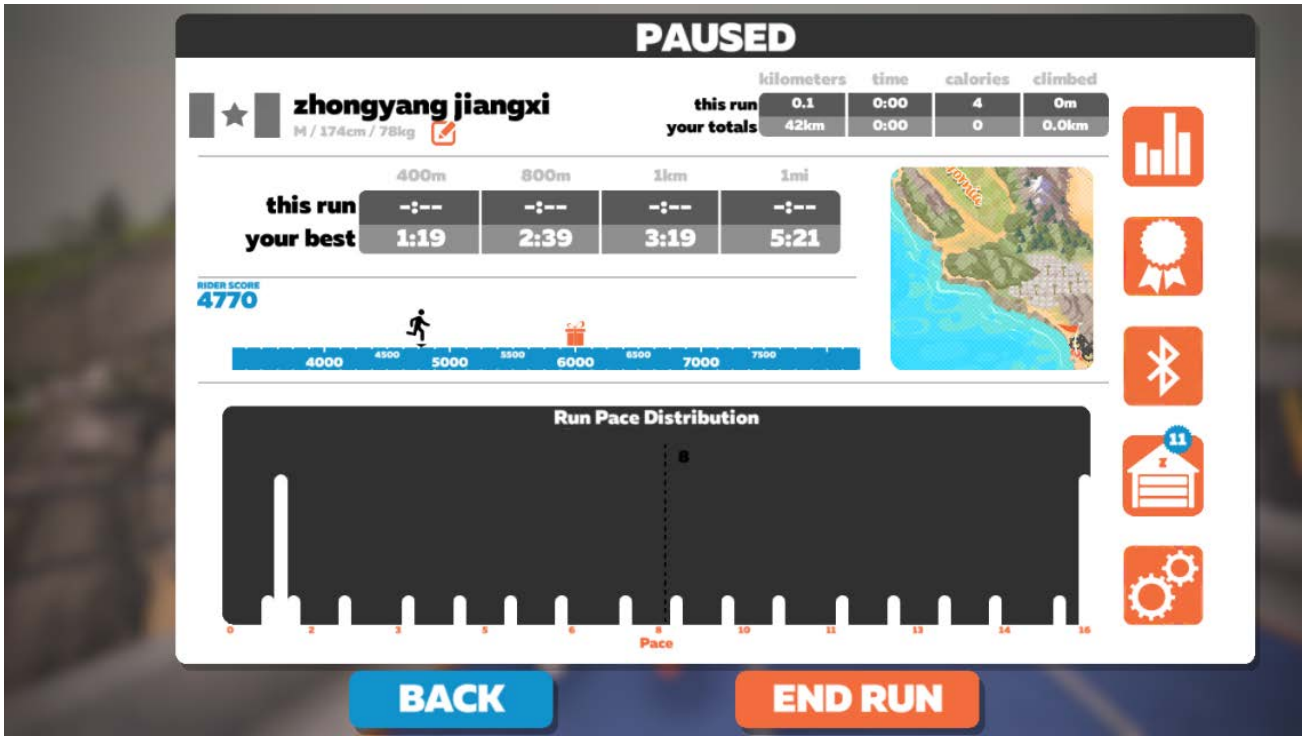
5. Click "RUN" to enter the running interface:



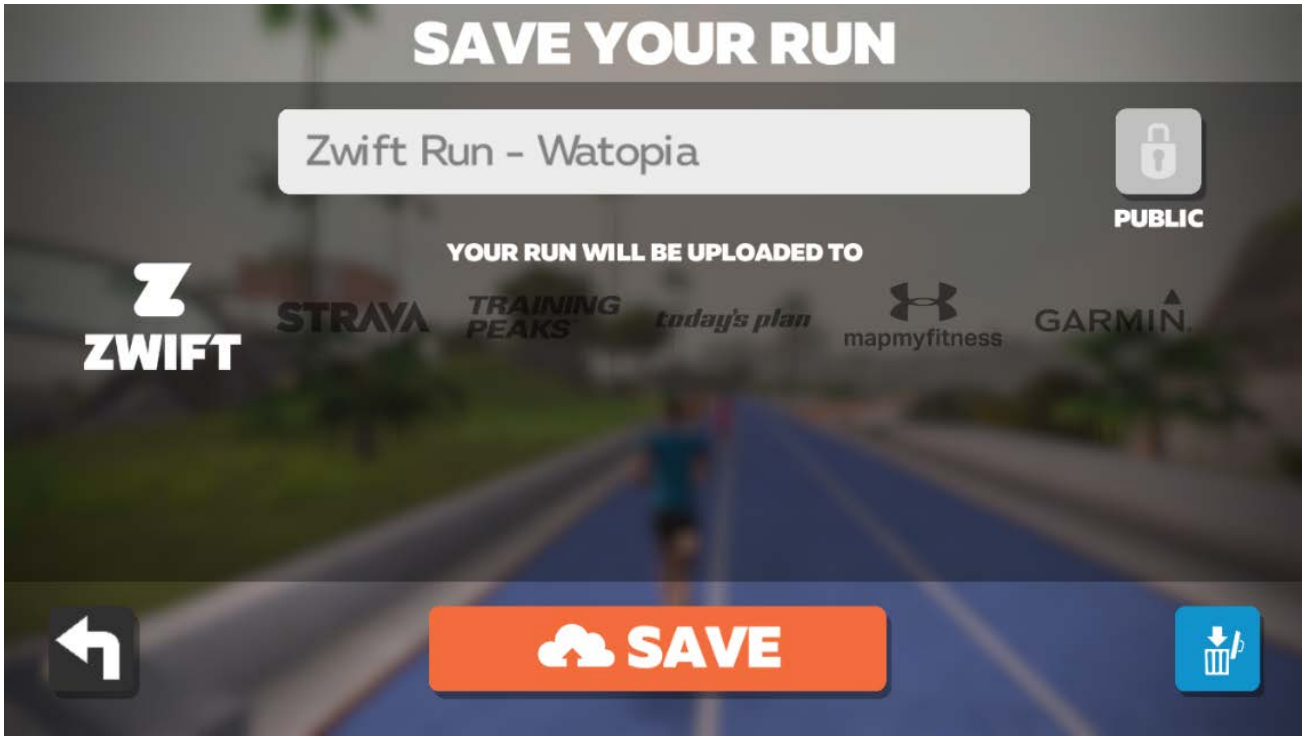
6. After starting the treadmill, adjust the speed:



7. End running on the app:


PAUSED
zhongyang jiangxi
M / 174cm / 78kg
kilometers time calories climbed
this run 0.1 0:00 4 0m
your totals 42km 0:00 0 0.0km
400m 800m 1km 1mi
this run -:-- -:-- -:-- -:--
your best 1:19 2:39 3:19 5:21
RIDER SCORE
4770
4000 4500 5000 5500 6000 6500 7000 7500
Run Pace Distribution
8
0 2 3 5 6 8 10 11 13 14 16
Pace
BACK
END RUN

RUN REPORT
Zwift Run - Watopia
AVG 5:30 /KM
0.1 km
0:41 ET
7 KCAL
0
GENERAL
TIMELINE
RAN WITH
A.Meadows
RUNNING GOALS
ADD A GOAL
HIGHLIGHTS
None today!
OK


SAVE YOUR RUN
Zwift Run - Watopia
PUBLIC
YOUR RUN WILL BE UPLOADED TO
ZWIFT
STRAVA
TRAINING PEAKS
today's plan
mapmyfitness
GARMIN
SAVE

Appendix warning:

Federal Communication Commission Statement (FCC, U.S.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC Radiation Exposure Statement:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

IMPORTANT NOTES

Co-location warning:

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

OEM integration instructions:

This device is intended only for OEM integrators under the following conditions:

The transmitter module may not be co-located with any other transmitter or antenna. The module shall be only used with the external antenna(s) that has been originally tested and certified with this module.

As long as the conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).

Validity of using the module certification:

In the event that these conditions cannot be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization for this module in combination with the host

equipment is no longer considered valid and the FCC ID of the module cannot be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End product labeling:

The final end product must be labeled in a visible area with the following: “Contains Transmitter Module FCC ID: 2AXTX-ZYLY-F”.

Information that must be placed in the end user manual:

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module. The end user manual shall include all required regulatory information/warning as show in this manual.

Integration instructions for host product manufactures according to KDB 996369 D03 OEM Manual v01