# MikroTik

NEWSLETTER, ISSUE #78 - SEPTEMBER 2017

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# Wireless Wire

## 1 Gbps full duplex without cables!



| 1 Gbit over wireless | 100m+ range | 60 GHz radio | Gigabit Ethernet | Paired Secure Link preconfigured | Powered by AF/AT/Passive PoE, DC jack |

The Wireless Wire offers blazing fast Gigabit speeds for transparent connectivity between two locations, without any sacrifice in your LAN speeds. Simply point the included devices at one another and power them on, they are already preconfigured to connect automatically!

The Wireless Wire works in the 60 GHz spectrum and is not affected by the crowded WiFi frequencies, offering a stable and fast link for distances of 100 meters or more. The kit includes two wAP60G devices that are already paired together with AES encryption, for simple turnkey operation.

# Wireless Wire

The Wireless Wire is a ground breaking solution which offers fiber speed and quality for a fraction of the price. This amazing kit replaces your Gigabit ethernet cable with two small devices that connect to each other over a 60 GHz wireless link.

Simply point the included devices at one another and power them on, it will make a 1 Gbps full duplex link to instantly replace your cable - this is why we call it the Wireless Wire!

The Wireless Wire makes secure AES encrypted 60 GHz wireless link that is not affected by the crowded WiFi spectrum, offering solid full duplex 1 Gbps throughput at 100 meters and a stable and fast link for slightly longer distances. The box includes two wAP60G devices that are already paired together, a wall mounting kit, straps for pole mounting and also a pair of table stands for using the devices indoors.
The link will even work through most windows, depending on their material.
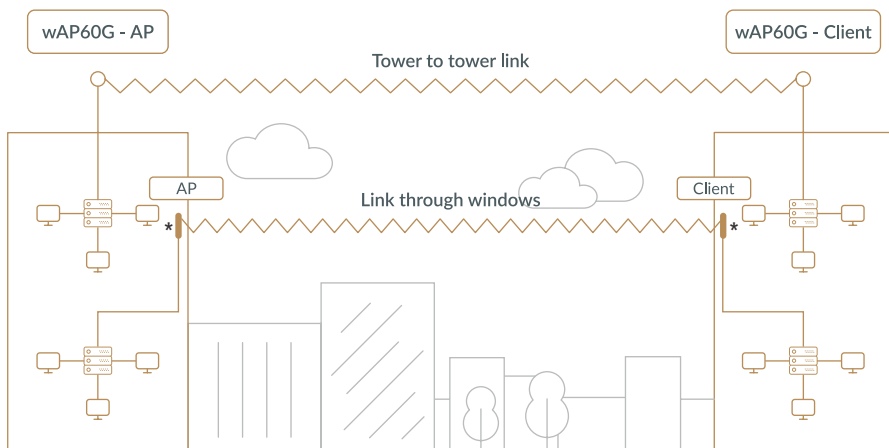
**$198**
**paired set**

**$99**
**ea.**
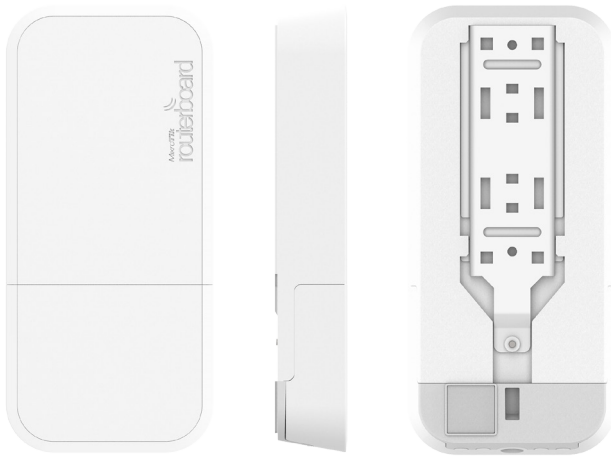
The box includes a wall mounting kit, zip ties, a hose clamp for pole mounting and also a pair of table stands for using the devices indoors or on window sills. Penetrates some windows depending on the material.

Multi-point support coming soon!

Online PDF

RANGE 100m +

wAP60G - AP

wAP60G - Client

Tower to tower link

AP

Link through windows

Client

* Some windows contain coating and material that could interfere with the link.

# Specifications for Wireless Wire

| | |
|---|---|
| Product code | RBwAPG-60ad kit |
| CPU | IPQ-4019 |
| CPU nominal frequency | 716 MHz |
| CPU core count | 4 |
| Size of RAM | 256 MB |
| 10/100/1000 Ethernet ports | 1 |
| Wireless | Built-in 60 GHz 802.11ad |
| Antenna | Phase array 60° beamforming |
| PoE in | Yes |
| Supported input voltage | 12 V - 57 V (802.3af/at) |
| Operating temperature | -40 C .. +70 C |
| Dimensions | 185 x 85 x 30 mm |
| Max power consumption | 5 W |

24 V 0.38 A Power adapter  •  Screw kit  •  Gigabit PoE injector  •  2x plastic straps 1x hose clamp  •  Table stand  •  Mount bracket

# Performance

The wAP60G has an extremely capable CPU, making it possible for wire speed throughput in nearly all packet sizes. The left image shows a sustained transmit of nearly 1 Gbps, the graph on the right side shows percent of wire speed achieved, based on different ethernet frame sizes. As you can see, it is wire speed in nearly all categories.

Full duplex Gigabit small packet perfomance
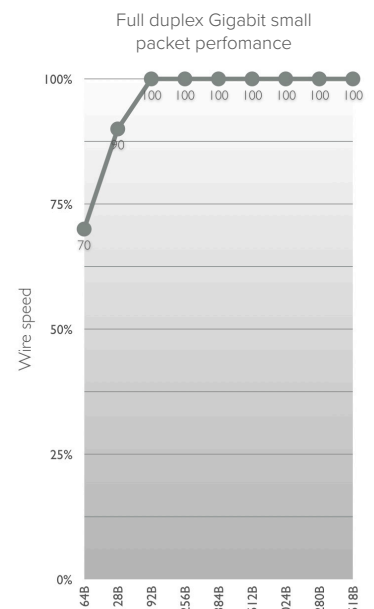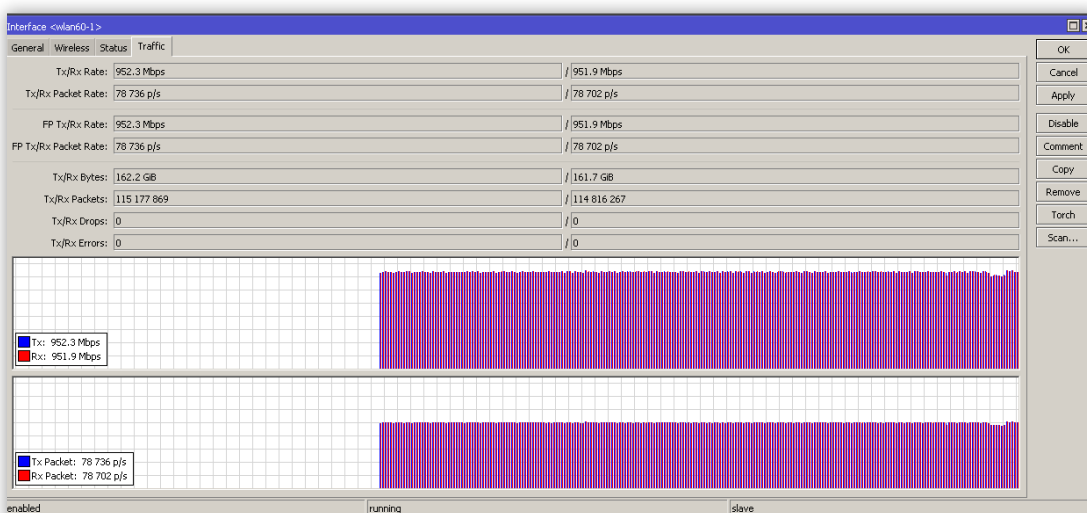
# FiberBox

The FiberBox is an outdoor router with five SFP ports, ideal for locations where distance is restricting the use of regular ethernet cables. The device is weatherproof and comes with a hose clamp and zip ties, ready to be installed on high masts and towers.



**$79**

PID:29668
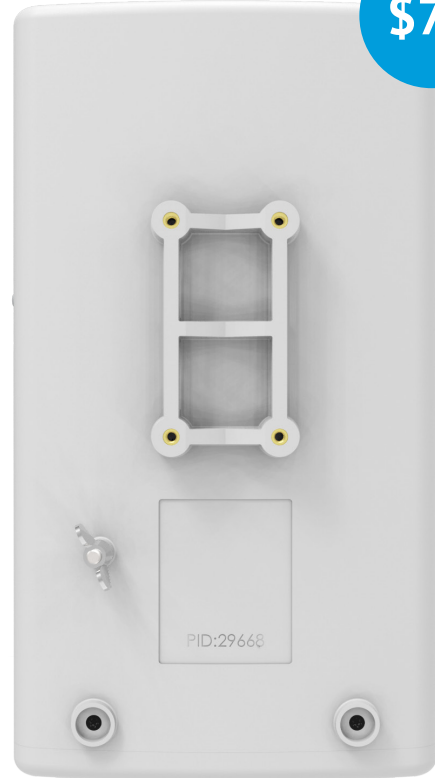
The package also includes the RJ45 SFP (S-RJ01) copper module already preinstalled in the first port, so you can use ethernet in one of the ports already out of the box. If not needed, remove it to have access to all five SFP ports for using with 1.25G fiber modules.



24 V 0.8 A power adapter

2x plastic zip ties

Hose clamp

Dinrail mounting bracket set (K-27)

S-RJ01 R45 SFP module

Online PDF

# RB1100AHx4

The new RB1100AHx4 series of devices uses a new quad core Cortex A15 chip from Annapurna labs, an Amazon company, The chip is clocked at 1.4 GHz, for a maximum throughput of up to 7.5 Gbps.

The RB1100AHx4 supports IPsec hardware acceleration, features two IEC failover power connectors, supports 802.3af/at PoE input and also have a DC telecom power connector for -48 V DC powering.

**$299**
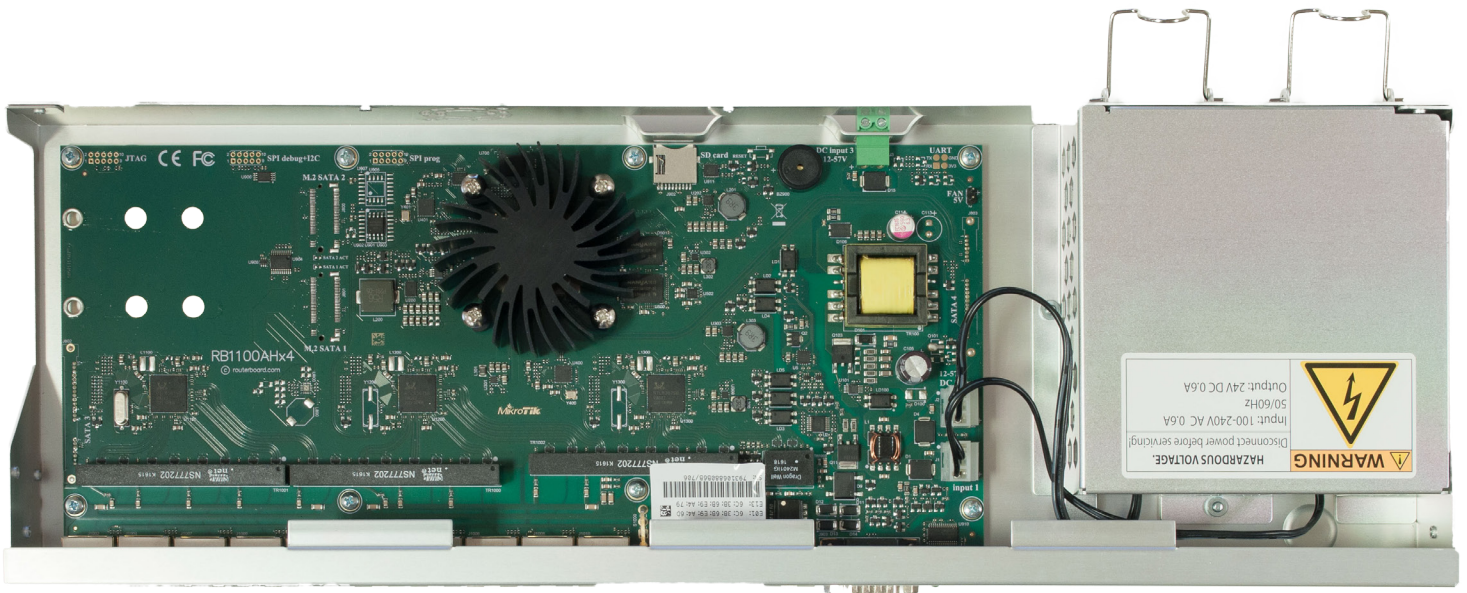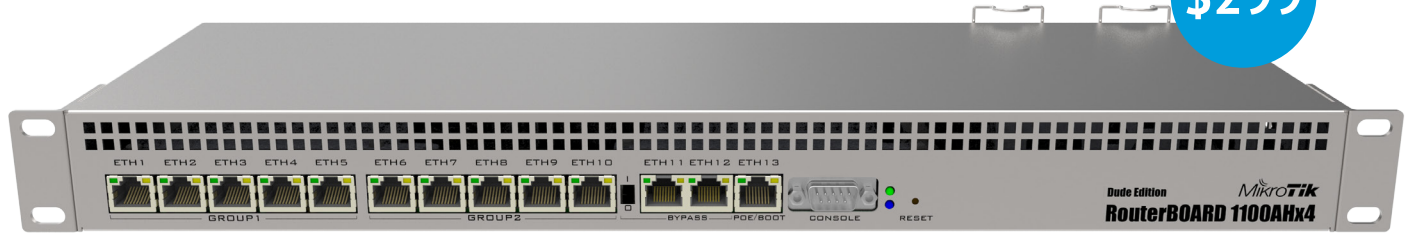
K-10 R2
screw kit

Rack ears

2x IEC cord

**Online PDF**

# mUPS

The mUPS is a PoE injector with battery backup capability and a 12 V battery connector. It works just like a Gigabit PoE injector, but when the power is lost, it switches over to the 12 V battery. Even if your power source is 28 V, the connected RouterBOARD will not reboot when the power source is lost, it will switch over to the 12 V battery transparently. The LEDs indicate DC line or battery usage, the charging of battery and low battery level (<50%).

In RouterOS it is possible to detect when running on battery power by monitoring the input voltage with scripting, since the voltage will change without a RouterOS reboot.

The mUPS is a simple and compact device to make your network more reliable, or for situations where stable power input is not available, like solar or automotive installations. You can use the mUPS with any single 12 V battery (AGM, Gel, Lead Acid, regular car batteries, deep cycle marine batteries, etc.).

**$29**
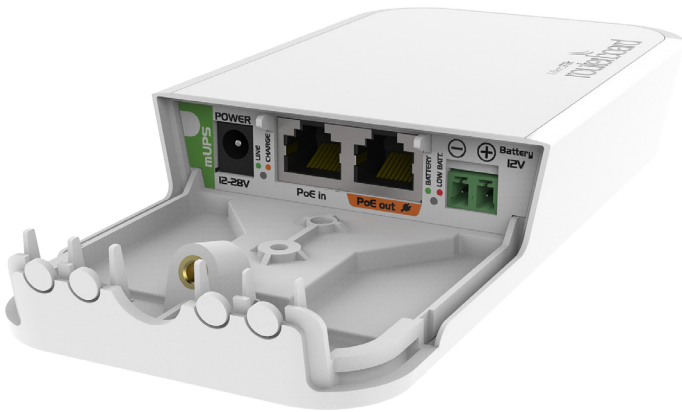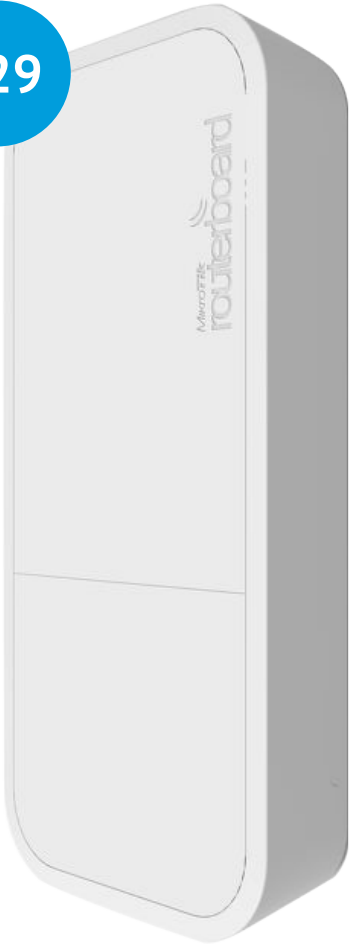
For example, when using a typical 7 Ah battery, our popular wAP access point would work for up to 20 hours and the LHG would work for up to 10 hours when powered only by the battery (if the ambient temperature is above 10 C).  Please note that in low ambient temperature your baterry capacity will be lower than nominal. You can refer to your battery datasheet for exact data.

24 V 1.5 A
Power adapter

Screw kit

Gigabit PoE injector

Plastic zip tie

Battery DC wire with
T2 Tab terminal
(also fits T1)

Mount bracket

**View online**

# M11G



$39

The M11G is a fully featured RouterBOARD device perfect for using with your own enclosure or building a custom solution. It uses the same square PCB and mounting holes as it's predecessors, you can simply swap out the older models with the brand new M11G.

The M11G features a new MediaTek dual core CPU running at 880 MHz, a miniPCIe slot for using with a WiFi module of your choice, or with a 3G/LTE modem (SIM slot provided). The device can be powered by PoE through it's gigabit ethernet connector or through the DC power jack.

**View online**

# PW48V - 12V150W



$100
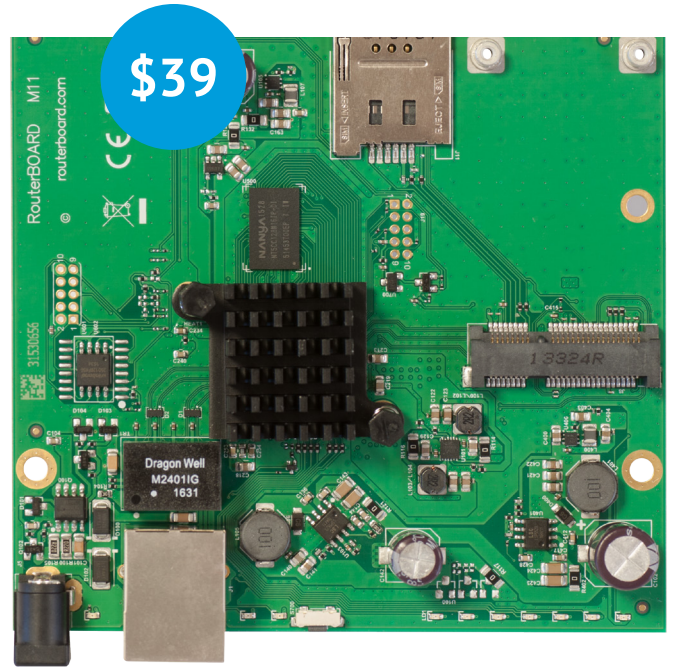
We are now offering a Hot Swap -48 V DC telecom power supply (product code PW48V-12V150W), available to purchase separately for use with CCR1072. Simply remove one of the current power supplies and replace with the new PW48V-12V150W for -48 V installations - simple and easy. You don't event need to turn off the device.

**View online**

# Wireless calculator

The first step to a reliable wireless link is surveillance and planning. To help you estimate the approximate reliability of a wireless link and to help you select the most appropriate MikroTik device to achieve it, we have created a new wireless link budget calculator.

Simply set your desired locations on the map, select the speed and frequency and then experiment with different products to see which devices are able to work in the given conditions. The Earth curvature and terrain is taken into account, and if the terrain gets into the way of your fresnel zone, the calculator will inform you that a high tower is needed.

We plan to bring more features to the calculator in near future, so make sure to bookmark it and use it for your next project.



**Open website**
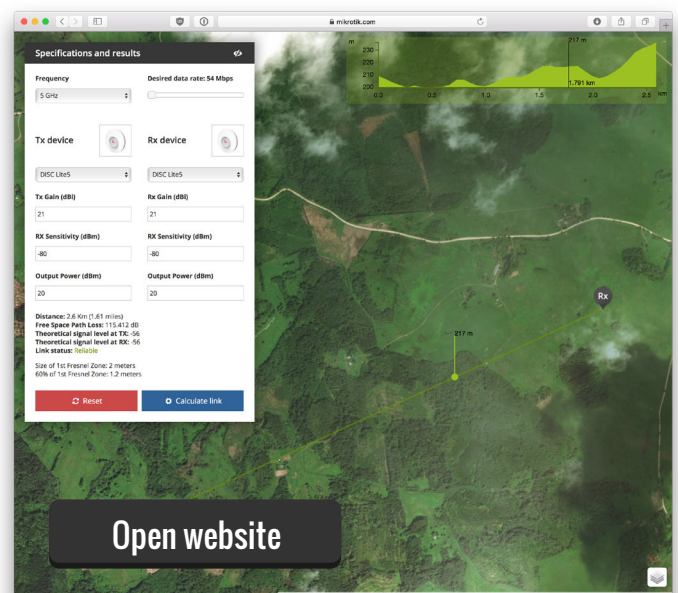
# S+RJ10 SFP module

This unique module opens up a whole world of high speed connectivity possibilities, offering up to 10 Gbps speeds over regular familiar twisted-pair cables in your existing products that have SFP+ ports. Any MikroTik device that has SFP+ ports can now be used without installing any optical fiber, just plug the S+RJ10 and your network can be upgraded to 10 Gbps, making it ready for the next generation of RJ45 hardware.

**Product description**

- Based on Marvell 88X3310P
- Power consumption 2.4 W max (10GBASE-T, 30 m link)
- Can only be used in SFP+ ports

**Compatible with**

- CCR1072-1G-8S+
- CCR1036 series
- CCR1016-12S-1S+
- CCR1009 series
- CRS317-1G-16S+RM
- CRS210-8G-2S+IN
- CRS212-1G-10S-1S+IN
- CRS326/CSS326 series

**$65**

Online PDF

# Woobm-USB

The Wireless out of band management USB stick (Woobm-USB) is a useful assistant for any network administrator. Simply plug it into any RouterOS powered USB port and it will allow you to access the console of that device over wireless. It sets up as a wireless access point and has a simple web interface where you can access a fully featured terminal interface to configure your router, and where you can configure the Woobm itself.

It can even work as a wireless client: if you wish to manage many devices, just connect all the Woobms to one AP inside your server room and manage the routers through there.

Other useful features include it's ability to discover neighboring RouterOS devices and ability to Telnet directly from your PC to the host console of the Woobm.

- Wireless out of band management (Woobm)
- Plug into a device to have a new management AP
- Can work as client to use in CCR rackmounts

**$16**

## Specifications

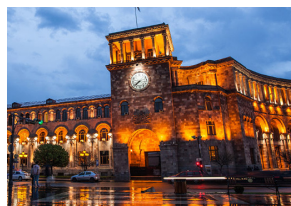| Product code | Woobm-USB |
| --- | --- |
| CPU | ESP8266EX |
| Supported protocols | 802.11b/g/n |
| Antenna gain dBi | 1.5 dBi |
| USB type | USB type A |
| Power input | 5 V |
| Dimensions | 55 x 19 x 8 mm |

Online PDF

# Upcoming MUM events 2017 - 2018

Yerevan, Armenia, October 10

Moscow, Russia, October 13 - 14
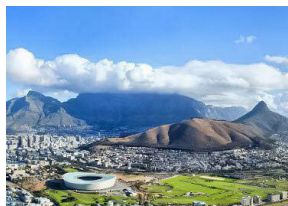
Riyadh, Saudi Arabia, October 22

Yogyakarta, Indonesia, October 27 - 28

Maceio, Alagoas, Brazil, November 09 - 10

Montevideo, Uruguay, November 13

Cape Town, South Africa, November 24

Lagos, Nigeria, November 28

Chengdu, China, January 13

Manila, Philippines, January 16, 2018

Yaonde, Cameroon, January 26

Nairobi, Kenya, January 30

# TRAIN THE TRAINER

**JANUARY 31 - FEBRUARY 02, 2018,
NAIROBI, KENYA**

Are you a certified MikroTik specialist? This is your chance to start a new business as a trainer!

We invite you to become a certified trainer!

For the first time in history MikroTik will be conducting Train the Trainer course in Africa. January 31 - February 02, 2018, Nairobi, Kenya.

A MikroTik certified trainer can conduct MikroTik certified training courses anywhere in the world.

Become a MikroTik certified trainer and give the gift of knowledge!

**Sign up now!**