

# Pythia Earphone User Guide



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# Pythia™ Earphone

## IMPORTANT SAFETY INSTRUCTIONS

- Please read and keep all safety and use instructions.
- Pythia™ earphone is not a hearing instrument or hearing conservation aid and is not intended to replace a properly fitted and calibrated hearing instrument.
- Do NOT open the Pythia™ earphone enclosure for any reason.
- Do NOT use Pythia™ earphone while driving.
- Do NOT use the earphone at maximum volume for extended periods.
  - To avoid hearing damage, use your earphone at a comfortable, moderate volume level at all times.
- Where appropriate, adjust the earphone to ensure you can hear surrounding sounds, including alarms and warning signals.
- Be aware of how sounds that you rely on as reminders or warnings may vary in character when using the earphone.
- Be aware that it may be more difficult to identify where a sound is coming from when using the earphone.
- Do NOT use the earphone if it emits any loud unusual noise.
  - If this happens, turn the earphone off and contact Adyton customer service to request an immediate replacement.
- Do NOT submerge or expose the earphone to water.
- Remove earphone immediately if you experience a warming sensation.
- Earphone contains small parts which may be a choking hazard.
  - Not suitable for children under age 3.
- This product contains magnetic material. Consult your physician on whether this might affect your implantable medical device.
- Do NOT make unauthorized alterations to this product.
- Do NOT expose earphone to excessive heat (e.g. from storage in direct sunlight, fire, etc.).

# REGULATORY INFORMATION

## FCC Part 15 Declaration of Conformity Statement

Note: 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. FCC Part 15 Subpart C is for intentional radiators. Intentional radiators governed by the FCC Part 15 Subpart C must either have a permanently attached antenna or provide a unique coupler to prevent the use of unauthorized antennas.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area may cause harmful interference in which case the user will be required to correct the interference at his own expense. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the Pythia™ device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna
2. Increase the separation between the Pythia™ device and receiver
3. Consult the dealer or an experienced radio/TV technician for help

- Changes or modifications not expressly approved by the party responsible for compliance will void the user's authority to operate the equipment
- Opening as few as 1 device enclosures will void the user's authority to possess the equipment and will result in: a) All devices associated with the responsible party being deactivated without refund or other consideration and 2) Immediate recall and return of all Pythia™ devices distributed to the responsible party at the party's expense.



### FCC CAUTION!!! FCC RF Radiation Exposure Statement

This device complies with the FCC Part 15 license exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

#### FCC 15.105: Information to user

Note: This Equipment has been tested and found to comply with the limits for a Class A digital device pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

#### **FCC 15.21: Information to user**

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



#### **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.
- This equipment should be fitted to the user's right ear.



#### **FCC CAUTION!!!**

Users must follow the processes and usages approved as per compliance. A changed or modified usage not expressly approved by compliance could void the user's authority to operate this Pythia™ device.

This device integrates Wi-Fi module (Model Number: ESP32-WROVER) from ESPRESSIF SYSTEMS (SHANGHAI) PTE LTD, having FCC ID 2AC7Z-ESP32WROVERE for radio communication. The Modules are integrated to this product as per the module integration rule.

FCC ID 2AVV5-PF24V1

Grantee Code: 2AVV5

Equipment Product Code: PF24V1

Contact: [info@adytonusa.com](mailto:info@adytonusa.com)

## **LIMITED WARRANTY (United States)**

Subject to the exclusions set forth below, Adyton, LLC will repair or replace, at its option without charge, any Pythia device which fails due to a defect in material or workmanship within One

Year following the initial consumer purchase. This warranty does not apply to water damage, abuse, or misuse, unauthorized service, or modification or altered products.

ANY IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED AS SET FORTH HEREIN AND TO THE DURATION OF THE LIMITED WARRANTY, OTHERWISE THE REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS EXPRESS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER AND IS PROVIDED IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. IN NO EVENT SHALL ADYTON OR ITS PARTNERS BE LIABLE, WHETHER IN CONTRACT OR TORT (INCLUDING BUT NOT LIMITED TO NEGLIGENCE, GROSS NEGLIGENCE, BODILY INJURY, PROPERTY DAMAGE AND DEATH) FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, OR FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATA OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE ABILITY OR INABILITY TO USE THE PRODUCTS OR ACCESSORIES TO THE FULL EXTENT THESE DAMAGES MAY BE DISCLAIMED BY LAW.

Performance of any obligation under this warranty may be obtained by contacting an authorized Pythia™ distributor or contacting: [admin@adytonusa.com](mailto:admin@adytonusa.com)

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

**Note:** The above warranty applies only to merchandise purchased through an authorized Pythia™ distributor in the United States of America or any of the territories or possessions thereof, or from a U.S. Military exchange.

## Overview

Congratulations on choosing a truly unique and innovative technology. Pythia™ is the world's first mobile system designed to verbally deliver step-by-step directions on demand, in any language\*, to a WiFi earphone, then report the time used to complete each step along with user feedback.

*\*Translation feature is pending development*

# Pythia's Novel Technologies

- No Phone:
  - The Pythia™ system requires no phone or Bluetooth device of any type for its configuration, implementation, or operation in any way
- WiFi Channeling:
  - Pythia™ Model 1 only works on pre-selected 802.11n WiFi channels at constant speeds of 50MBps or faster; it will not work outside pre-selected WiFi channel ranges
- Immediate Process Access:
  - Pythia™ is able to immediately provide verbal steps for standard operating procedures including emergency procedures and others that may be used frequently, infrequently, or as a precaution, never.
- Safety & Personal Protection:
  - Pythia™ ensures users are reminded to perform tasks safely including using proper personal protective equipment every time they perform tasks that risk organizational liability, personal injuries, and property damage.
  - Pythia™ immediately alerts management when users need help hands-free via voice or by pressing an earphone button
- Big Data
  - Pythia™ passively collects data at process step and individual user granularity that yields performance, process, and other information to reveal continuous improvement opportunities.
- Auto-Translation
  - Pythia™ enables organizations to write their standard operating procedure in one language, then verbally deliver them in 129 other languages and dialects on-the-fly
- On-the-Fly Operations
  - Pythia™ delivers step-by-step work instructions, captures performance data, captures user feedback, and translates text written in one language to 129 other languages & dialects completely on-the-fly.
- Security
  - Pythia™ was designed with security in mind
    - Pythia™ security plans and subsequent systems were reviewed and approved by a former US-National Security Agency and Central Intelligence Agency information security specialist
    - Pythia™ operates “on-the-fly” to increase security of client intellectual property as no process title, process, or process step is ever saved outside the Pythia™ cloud

- Pythia™ earphones and user accounts are password protected
- Pythia™ earphones will not operate outside the range of pre-configured WiFi channels
- The entire Pythia™ system is routinely audited for data vulnerabilities and those vulnerabilities are tested for severity, then eliminated or mitigated
- Four permission levels ensure security across all Organizations (Super-Admin), within Organizations (Admin), within Work Groups (Super-User), and among Users (User).
- Pythia™ security is backed by world class Google services including; Google Cloud, Google Storage, Google Speech, and Google Translate.

## Pythia™ Controls

### Voice and Button Controls:

The Pythia™ earphone uses a conversational user interface and/or mechanical buttons on the earphone. The conversational interface uses process titles, a wake word, and The mechanical button sends commands through 1 or 2 Short-presses or 1 Long-press.

### Power On/Off

Pythia™ earphones include a separate power button used to turn the device on and off.

- *Power On*: While shut down, press the power button. The system will start up, then ask for a process title to run.
- *Power Off*: While turned on, press the power button. The earphone will shut down.

### Wake Word

The Pythia™ wake word is “OK”. OK causes the system to “listen” for an assigned process title and/or a command. All commands must be preceded with the wake word. For example: Say, “OK. Next.” to tell the system to play the next step.

### Voice Controls

Use the following voice commands to operate the system in your own language. The system supports 130 languages\*:

- *Next* = Advances to next process step
- *Repeat* = Repeats the last process step instruction
- *Quit* = Ends the current process, then recycles to request mode
- *Help* = Sends an immediate email alert to the designated supervisor
- All interactions except record requests and volume controls can be accomplished with voice commands and/or mechanical button on the earphone

*\*Translation feature is pending development*

## Button Controls

Pythia™ earphones are equipped with 3 mechanical buttons: Top, Bottom, and Power. Button operations include:

- *Single Short-Press Top Button* = Next
- *Double Short-Press Top Button* = Repeat Current Step
- *Single Long-Press Top Button* = Quit Current Process
- *Single Long-Press Bottom Button* = *Send Help Request*
- *Single Short-Press Bottom Button* = Volume Down 1 Increment
- *Double-Short-Press Bottom Button* = Volume Up 1 Increment
- *Press Power Button* = On, Off
- *Triple-Long Press* = Help/Send Alert
- All interactions except record requests and volume controls can be accomplished with voice commands and/or mechanical button on the earphone

## Charging the Earphone:

The Pythia™ earphone uses a state-of-the-art lithium polymer (LiPo) battery for maximum use between re-charging. You'll hear a series of verbal messages when battery power depletion is imminent:

- When battery power reaches 10%, system says, "10% power remaining."
- When battery power reaches 5%, system says, "5% power remaining."
- When battery power reaches 2%, system says, "Shutting down; please stand by."

Each Pythia™ earphone is equipped with a micro-USB interface to facilitate battery charging. Connect a regular micro-USB cable to the earphone and a power source.

- The system's firmware is set to fully recharge the earphone battery in about 30 minutes.

## WiFi Technology

Pythia™ uses pre-selected 802.11n WiFi channels to operate the system. Faster WiFi speeds deliver faster system performance. The minimum recommended speed is 60mbps.

Thanks to Pythia™'s WiFi capability, there's no Bluetooth pairing, and no phone; just turn it on, say your password, and go!

# Care and Maintenance

- Unplug your earphone's charger cable when fully charged and before use
- Never open the earphone enclosure for any reason
- Your earphones may require periodic cleaning
  - If your earphone includes self-cleaning plastic, simply curtail use for up to 5 hours. The microbial plastic will cleanse itself, then simply wipe the earphone casing with an electronics or optical-safe towelette.
  - If your earphone does not include self-cleaning plastic, clean it only with an electronics or optical-safe towelette.
  - Never use cleaning solvents or detergents to clean the Pythia™ earphone.
  - Broken or damaged Pythia™ earphones must be returned to an authorized Pythia Partner or to Adyton. A replacement will be promptly delivered.
    - Contact [admin@Adytonusa.com](mailto:admin@Adytonusa.com) to arrange earphone returns and replacements.
  - Your Adyton earphones are covered by a 30 day satisfaction guarantee.
    - Contact [admin@Adytonusa.com](mailto:admin@Adytonusa.com) if an earphone malfunctions within 30 days and a replacement earphone will be delivered ASAP
    - Return the defective earphone to your authorized Pythia™ distributor or send it to:  
Adyton, LLC  
550 Lockport RD  
Rochester Hills, MI 48307

## Earphone Operation:

Pythia navigates cloud database records using a verbal wake word and verbal commands and/or mechanical buttons on the earphone.

### Earphone features include:

- Mechanical Buttons
  - On/Off Button
    - Press to turn on; press again to turn off
  - Top Button
    - Short-press to play next step
    - Double Short-press to repeat the step instruction

- Long-press to Quit the process
- Bottom Button
  - Short-press to turn down speaker volume
  - Double Short-press to turn up speaker volume
  - Long press to request Help (sends email to assigned supervisor)

- **Verbal Commands**

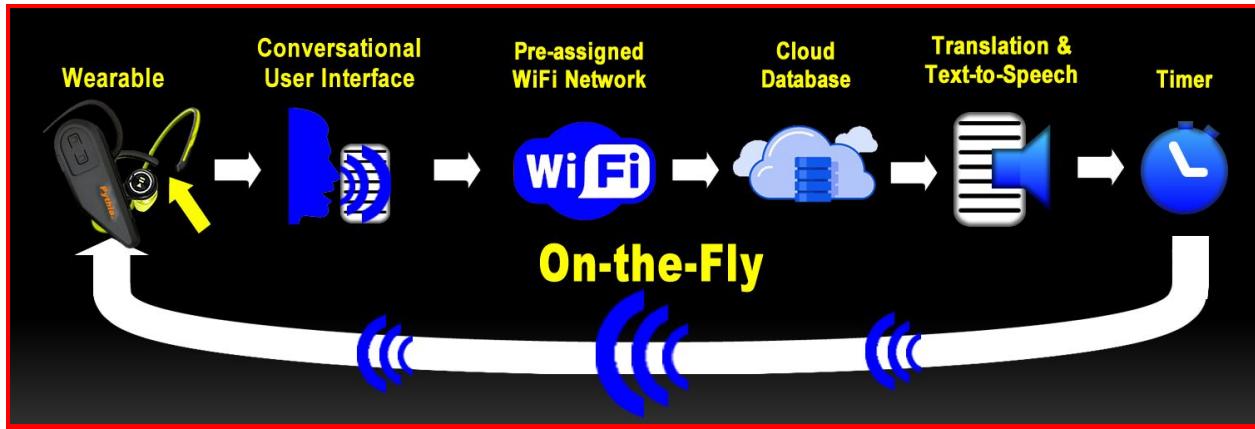
- Wake Word
  - “OK” - Say the wake word before every verbal command
  - “Next” - Say “OK. Next” to hear the next process step & start a timer
    - If there was a prior step, “OK. Next.” stops the time, calculates how long it took to complete that step & sends the duration to the cloud before playing the next step
  - “Repeat” - Say “OK. Repeat.” to have a step verbally repeated
  - “Quit” - Say “OK. Quit.” to end a process before completing it
  - “Help” - Say “OK. Help.” to send an immediate email alert to a manager

- **Critical Step**

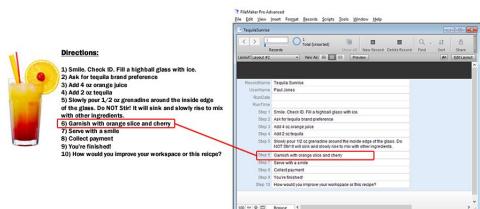
- The system automatically detects when users fail to spend the minimum expected amount of time on a “Critical” process step.
  - When the minimum time is not spent on a critical step, the system automatically sends an email alert to a manager

# Operation:

Users verbally request work processes, the system delivers step-by-step directions and tracks the time spent on each step. Upon completing all steps, the system asks the user for feedback on how to improve the process, their performance, or anything other performance-related factor.



## Make Database Records



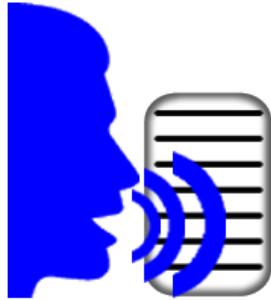
Standard Operating Procedures, like recipes, assemblies and/or high tech procedures are entered into a cloud database as records; one text field per instruction or step.

## Pythia WiFi Earphone



Upon power up, the Pythia device automatically connects to an in-range, pre-configured secure WiFi channel, finds the user account it's assigned to, then asks user to request a process. The earphone has a microphone, speaker and control buttons that operate

the system. The battery lasts around 5 hours and fully recharges via micro-USB in around 30 minutes.



## Conversational Interface

Like Siri or Cortana, Pythia uses a conversational user interface to operate the system by speaking the wake word, "OK", and the commands, "Next", "Quit", "Repeat", "Help", and to process titles.



## 802.11n WiFi

Pythia runs on regular, pre-configured, 802.11n WiFi channels, >60mbps or faster. Upon power up, earphones automatically connect to an in-range, pre-configured WiFi channel, finds the user account it's assigned to, then asks user to request a process.



## Cloud Database

Processes/recipes, user accounts, and performance data are all kept in our cloud database. For complete security, no process, step, or performance data is ever saved outside the cloud; everything operates on-the-fly.



## Text-to-Speech

After the system finds a requested process to run, Pythia converts the record's first text field to speech and plays it on-the-fly to the earphone.



## Digital Timer

A timer begins. It ends when the user finishes the step and says, "OK. Next."



## Next Steps

After completing a step, the user says, "OK. Next", the system stops the timer, calculates the performance duration, uploads the data to the cloud, converts the next step's text to speech, and plays it on-the-fly to the earphone.



## Feedback

After completing all the steps of a process, Pythia asks users to provide their optional feedback.



## Recycle to Beginning

After the feedback phase, Pythia recycles to the beginning and asks the user to request a process.



## Analytics

Performance data is immediately available and can be sorted down to individual performer, date range, and specific process STEP. The standard Mean Performance Report automatically calculates a mean performance duration for the sorted data and highlights it relative to the mean. Scores are

assigned; Green is for events closest to mean, Red is the farthest from the mean, and Gold includes best practices and the best chance to deliver the highest Return On Investment when achieved.

## Global SOP Updates



Companies using Pythia can update and deliver process updates anywhere in the world simply by editing database text fields.

*Our auto-translation capability enables our clients to write their SOPs in one language and deliver it in over 100 other languages, in real time.*

## Alerts!



Pythia users can request help by saying, "OK. Help." or by Long-Pressing the Alert Button on the earphone to send an immediate text message to their supervisor. A text alert is also sent when users don't spend the minimum expected amount of time on "Critical Process Steps".

## NO Phones!



For more than a decade, technologies have converged with dependency on phones and tablets. The next decade will begin the divergence from phones. Pythia's Patented technologies are trailblazing because they don't require a phone or

tablet. This also adds to our clients ROI by saving them thousands of dollars in collective phone costs.



## Hands-free

Like Siri and Cortana, Pythia operates by voice, which enables it to navigate completely hands-free. This is important when safety, cleanliness, efficiency, and accuracy matter.

## Troubleshooting:

If you experience problems with your earphones:

- Turn off the earphone, then turn it back on
- Ensure you're within range of a pre-selected WiFi channel
- Ensure the selected WiFi channel is broadcasting
- When possible, check with other users to see if their earphones are operating properly
- Ensure you're requesting a process by its exact title
- Ensure the process you're trying to run is assigned to you
- Turn off the earphone, connect it to a power source & charge the battery for 30 minutes; then try using the earphone again
- Ensure the device you're using is assigned to you
- Turn off the earphone if it begins to feel warm
- Users: Contact your Super-user or Admin for more help
- Admins: Contact your Business Partner or dedicated Super-administrator
- Business Partner: Contact your dedicated Super-administrator