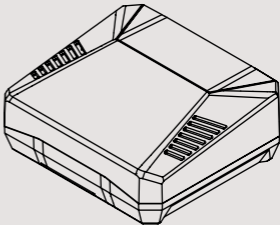
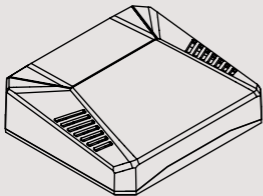
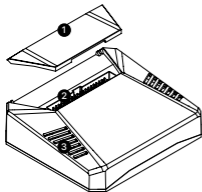


# Argon ONE V3 / M.2 NVMe PCIE

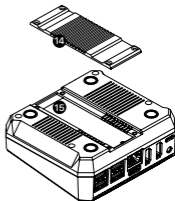
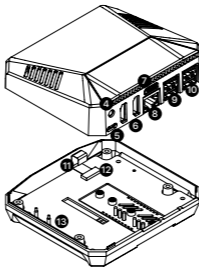
Instructions Manual



# ARGON ONE V3 / M.2 NVMe PCIE PARTS



**ARGON ONE V3**



**ARGON ONE V3  
M.2 NVMe PCIE**

- ❶ Magnetic Removable Top Cover
- ❷ 40 Pin GPIO Access
- ❸ Exhaust vents
- ❹ 3.5mm Audio Port (Optional with Argon BLSTR DAC)

- ❺ USB-C Power In
- ❻ 2 x Type A HDMI
- ❼ Power Button
- ❽ Gigabit Ethernet

- ❾ 2 x USB 3.0
- ❿ 2 x USB 2.0
- ⓫ PCIe Film Strip
- ⓬ PCIe Socket

- Ⓜ Power Pogo Pins
- Ⓨ THRM L M.2 Heatsink
- Ⓩ M.2 NVMe Drive Socket

# ARGON ONE V3 FEATURES

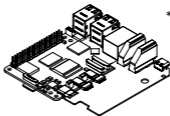
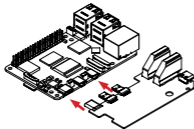
<b>Durable and Functional Case Material for Passive Cooling</b>	Whole top of the case is injected aluminum alloy and injected ABS plastic bottom
<b>More efficient Active Cooling</b>	Blower type 30mm PWM Programmable fan. Full fan power control vis-a-vis CPU Temp response via Argon Script
<b>Internal MicroController for Power Button and FAN Control Functions</b>	"Powered by Raspberry Pi" (RP2040 Chip). New Hacker Friendly feature.
<b>Built-in IR Receiver</b>	(GPIO 23) Works with Argon Remote once Argon Script is installed, but is fully user Programmable for other remotes in LIRC
<b>Multi function Power Button and Power Management</b>	Safe shutdown with power cut, Reboot, Always ON Mode
<b>2 Regular HDMI</b>	Converted the micro HDMI of the RPI 5 to Regular HDMI
<b>GPIO Access</b>	Full GPIO Access with Magnetic cover

# ARGON ONE V3 ADD ON MODULES

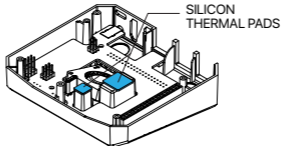
<b>Add ON: Argon ONE M.2 PCIE-NVME Expansion Board</b>	Fully compatible with the Argon ONE M.2 NVME PCIE Expansion Board for the M.2 NVMe Storage via the PCIE of the RPi 5
<b>Add ON: Argon ONE BLSTR DAC</b>	Full high definition 24-bit 192kHz Texas Instruments PCM5122 digital audio codec (DAC) via the 3.5mm jack
<b>Add ON: Argon PWR Uninterrupted Power Supply Module</b>	Argon PWR UPS   5.1V 5A PD UPS with internal RTC

# ASSEMBLY INSTRUCTIONS

1. Connect the Raspberry Pi® 5 to HDMI-Power Board. Place the Silicon Thermal Pads on the Argon ONE V3 case heatsinks (CPU and PMIC).



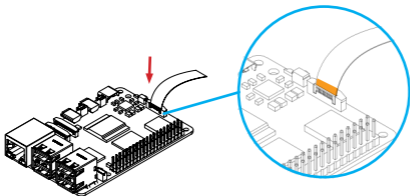
\*push all the way  
in the HDMI  
DAUGHTERBOARD



**Reminder: Peel off plastic on both sides of the thermal pads**

2. Connect the PCIe Pipe Flat Flex Cable to the Raspberry Pi® 5 PCIe port.

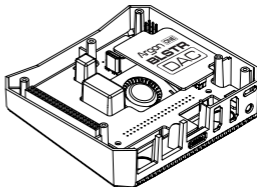
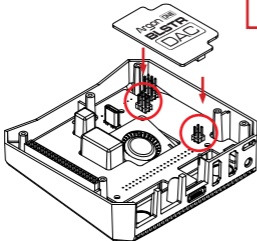
Skip this step if you have not purchased the Argon ONE V3 M.2 NVMe PCIe Case or Expansion Board



Copper side of the strip should be facing the white side of the PCIe connector of the Raspberry Pi® 5.

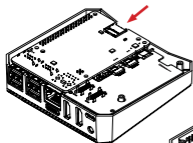
3. Connect the Argon ONE BLSTR DAC Board to the pins of the Argon ONE V3 Fan Board. Argon ONE BLSTR DAC is needed to activate the 3.5mm Audio Jack to work.

Skip this step if you have not purchased the Argon ONE BLSTR DAC.



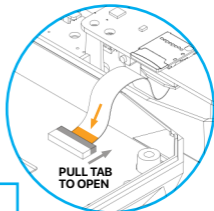
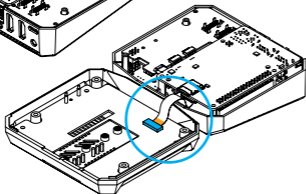
Set Audio to PulseAudio in **raspi-config**  
Add setting to **config.txt**  
**dtoverlay=hifiberry-dac**

4. Carefully connect Raspberry Pi® 5 HDMI-Power assembly to the female GPIO port of the Argon ONE V3 case.



**FOR ARGON ONE V3 CASE ONLY:**

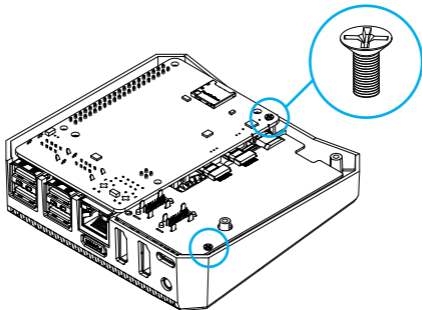
Please make sure that the microSD Card is **NOT** inserted to the Raspberry Pi during assembly.



**FOR ARGON ONE V3 M.2 NVMe**

Please connect the PCIe Pipe Flat Flex cable **with copper facing up** to the Cable to the Expansion Board

5. Use **flat head screws** to fasten Raspberry Pi® 5 and HDMI-Power Board assembly to top case.



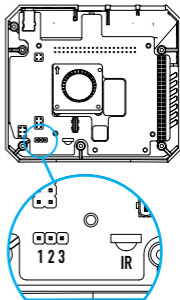
6. Select the **Argon ONE V3** Power Button Management Mode:

**ARGON ONE V3 / M.2 NVMe PCIE CASE**  
JUMPER PIN SETTING

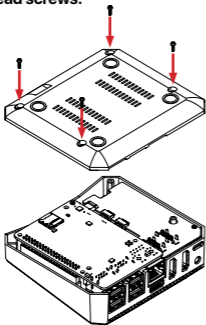
JUMPER PIN SETTING	MODE	BEHAVIOUR
Pin 1-2	Default Setting (Mode 1)	You need to PRESS button to Power ON from shutdown or power outage.
Pin 2-3	Always ON (Mode 2)	Power current will flow directly to Raspberry Pi. NO need to PRESS button to power ON from power outage

**DEFAULT SETTINGS**

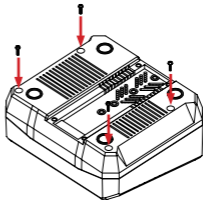
Pin 1-2 or No Pin



7. Secure the bottom cover of the **Argon ONE V3** using the **round head screws**.

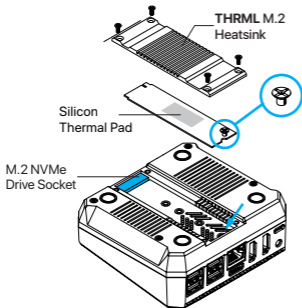


**ARGON ONE V3**



**ARGON ONE V3  
M.2 NVMe PCIe**

8. Connect your **M.2 NVMe Drive** to the **Argon ONE V3 M.2 NVMe PCIE Expansion Board**. This Board will accept **M.2 Key M** and **M.2 Key B+M** NVMe Storage Drive.



**\*This Board is NOT compatible with M.2 SATA Storage Drives.**

Secure your **M.2 Drive** to the **Argon ONE V3 M.2 Expansion Board**. You may move the screw point on the Board to the appropriate size of your Storage Drive.

**\*PRESS the POWER Button to TURN ON** after assembly and connecting the Power Supply

# ARGON ONE V3 POWER BUTTON & FAN CONTROL SCRIPT

**STEP 1:** Configure the EEPROM Setting to optimize power and boot from NVMe.

1. Connect to the Internet, make sure Raspberry Pi Time is updated and execute in the Terminal.

```
curl https://download.argon40.com/argon-eprom.sh | bash
```

2. Reboot.

**STEP 2:** Install the Argon Control Script and Config.txt Settings

1. Connect to the Internet and execute in the Terminal.

```
curl https://download.argon40.com/argon1.sh | bash
```

2. Reboot.

## UNINSTALL

To uninstall the **Argon ONE V3** script you may do so by clicking the **Argon ONE V3 Desktop icon**.

You may also remove the script via "Terminal" by typing:

```
argonone-uninstall
```

Always reboot after changing any configuration or uninstallation for the revised settings to take effect.

For more detailed instructions follow the link below:

<https://argon40.com/blogs/argon-resources>

## EXPLAINING THE AUTOMATED SETTINGS IN THE ARGON ONE SCRIPT

The **ARGON ONE Script** automates the installation of all the libraries, programs and EEPROM and Config settings necessary for the **RP2040** in the **Argon ONE Cases** to be able to communicate with the **Raspberry Pi 5** and perform the various functions like Cooling and Power Management.

Below are the SETTINGS that were automated by the Argon ONE Script.

	<b>EEPROM Config</b>	<b>config.txt</b>
<b>Argon ONE Power Button</b>	PSU_MAX_CURRENT=5000	usb_max_current_enable=1
<b>Argon ONE V3 M.2 NVME PCIE</b>	BOOT_ORDER=0xf416 PCIE_PROBE=1	dtparam=nvme dtparam=pciex1_1=gen3
<b>Argon ONE BLSTR DAC</b>		dtoverlay=hifiberry-dac

## ARGON ONE V3 POWER BUTTON & FAN SPEED

Upon installation of the **Argon ONE V3** script by default, the settings of the **Argon ONE V3 Power button** and **cooling system** are as follows:

ARGON ONE V3 STATE	ACTION	FUNCTION
OFF	Short Press	Turn ON
ON	Long Press ( $\geq 3$ s)	Soft Shutdown and Power Cut
ON	Short press ( $< 3$ s)	Nothing
ON	Double tap	Reboot
ON	Long Press ( $\geq 5$ s)	Forced Shutdown

CPU TEMP	FAN POWER
55 C	30%
60 C	55%
65 C	100%

However, you may change or configure the FAN to your desired settings by clicking the **Argon ONE V3** Desktop icon.

Or via "Terminal" by typing and following the specified format:

```
argonone-config
```

## BUILT-IN INFRARED RECEIVER

The latest version has a programmable Infrared Receiver installed that can turn ON and OFF the device using the proprietary **Argon 40 IR Remote**.

To configure the **Infrared Receiver ON/OFF signal of Argon ONE V3** type in the Terminal App:

```
argonone-ir
```

Then follow the instructions indicated.

## RECOMMENDED POWER SUPPLY

**Argon PWR GaN USB-C PD 27W** or  
Official Raspberry Pi® 27W USB-C Power Supply

For more information please visit:

<https://argon40.com/blogs/argon-resources>