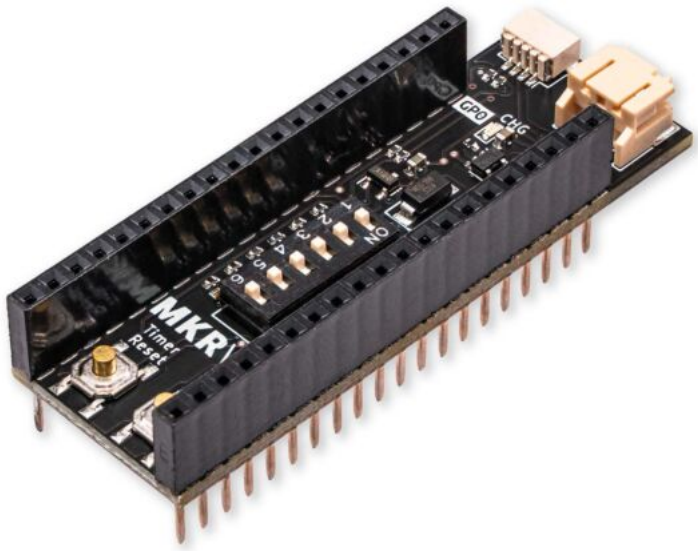






Makerverse Nano Power Timer HAT for Raspberry Pi Pico

2 Reviews

SKU: CE08492 | Brand: Makerverse

ORIGINAL

Periodically cycles power to your battery-powered projects

$12.60 AUD, inc GST

$11.45 AUD, exc GST

In stock, ships same business day if ordered before 2PM
Delivered by Fri, 29th of Sep

Quantity Discounts:

4-12 $10.31 (exc GST)
12+ $9.74 (exc GST)
50+ $7.45 (exc GST)

Recommended Essentials:

Polymer Lithium Ion Battery (LiPo) 3.7V 400mAh
$12.05 ☐ also add to cart

JST-PH Battery Extension Cable - 500mm
$4.45 ☐ also add to cart

3x AA Battery box (JST-PH, Switch)
$3.20 ☐ also add to cart

3x AA Battery Holder with On/Off Switch and 2-Pin JST
$7.50 ☐ also add to cart

Raspberry Pi Pico (with Soldered Female Headers)
$10.45 ☐ also add to cart

1 Add to Cart

Have a product question? We're here to help!

Share a project for this product

Shipping:

$6+ Standard (5+ days*, tracked)
$10+ Express (2+ days*, tracked)
FREE Pickup (Newcastle only - must order online*)

Shipping costs may increase for heavy products or large orders.
Exact shipping can be calculated on the view cart page.
*Conditions apply, see shipping tab below.

DESCRIPTION COMMENTS SHIPPING RELATED PRODUCTS REVIEWS

he **Makerverse™ Nano Power Timer HAT for Raspberry Pi Pico** cycles power to your project periodically, extending battery life. To use the timer, connect it to your ico via the stackable headers, set your desired interval, and apply power to the battery connector. The timer will run continuously, consuming a (really tiny!) 35nA, efore turning your project on after the set interval. Once your project has completed whatever it needs to do (eg. read sensors, log data), your Pico can signal to the mer that it is DONE (on GP22). The timer will remove power and wait for the next interval. Intervals from just a few seconds to one hour are easy to set with the six- osition DIP switch and the most useful intervals can be selected with just one switch - refer to the labels on the back of the timer. Switch positions can be combinec › create more granular intervals if necessary.

here's also a few lifestyle upgrades on board: A reset button for the Pico allows you to restart your program on the fly, and a Timer Reset button so you don't have t ait a full interval (useful for experimenting on the bench). There's even a PiicoDev compatible connector, to allow easy, solderless connection to **PiicoDev devices**.

his HAT is a more Pico-friendly version of the **Makerverse Nano Power Timer**. Connecting to the Nano Power Timer is easy - it comes with pre-soldered stackable headers. Ready to plug directly on top, (or underneath) a Pico. Batteries connect via the JST PH connector, compatible with lithium cells or AA/AAA Battery packs.

Technical Information | Example Code | Resources

Setting an Interval

Set one of the six DIP switches to set one of the following intervals. More granular intervals are available by setting more than one DIP switch at a time - the resulting interval will always be shorter than the shortest interval selected.

Switch	Interval (Approximate)
All OFF	2 hours
1	1 hour
2	20 minutes
3	5 minutes
4	1 minute
5	15 seconds
6	6 seconds

Battery Charging

The battery charger on-board can **only** be used with single-cell Lithium Polymer cells. By default, the Makerverse Nano Power Timer HAT ships with charging disabled to allow safe use with other batteries (Alkaline, NiMH). To enable charging for single-cell LiPo, close the CHG EN jumper by adding solder. For charging to commence, the battery must be connected before connecting the Pico to another power source or USB. Connecting a battery to an already-powered Power Timer HAT will not initiate charging. By default, the charge current is set to 100mA. Enable 330mA fast-charging by soldering the CHG FAST jumper.

Charger States and LED Behaviour

The charge indicator LED (CHG) indicates the status of a connected rechargeable battery (if any). The following table summarises its behaviour (while the Pico is plugged into USB power).

CHG EN Jumper	Battery Connected	CHG LED Behaviour	Charger State
Unsoldered (Default)	-	ON	Disabled. Safe for Alkaline or NiMH cells
Soldered	NO	Slow Flash	Idle - waiting for battery
Soldered	YES	ON	Charging
Soldered	YES	OFF	Charge Complete

By design, the power LED will be on by default when the device has power, if you want to disable it to stretch as much power out as possible, cut the link between the pads marked PWR LED. You can always resolder the bridge later if you decide you want it back on.

PiicoDev Compatibility

A PiicoDev connector is provided, connected to GP8:SDA and GP9:SCL - that makes this HAT compatible with existing PiicoDev tutorials for Pico with no changes to example code.

Specifications

- DONE Pin: Connected to GP22. Send GP22 HIGH to send the DONE signal.
- Timer standby current: 35 nA
- Dimensions: 20.8 × 61.7 mm
- Battery Connector compatibility:
  - 3x Alkaline or NiMH cells in series (Charger must be disabled, open the CHG EN jumper)
  - Lithium Polymer (single cell)
- Charge current: Selectable 100 mA or 330 mA

This product is listed in:

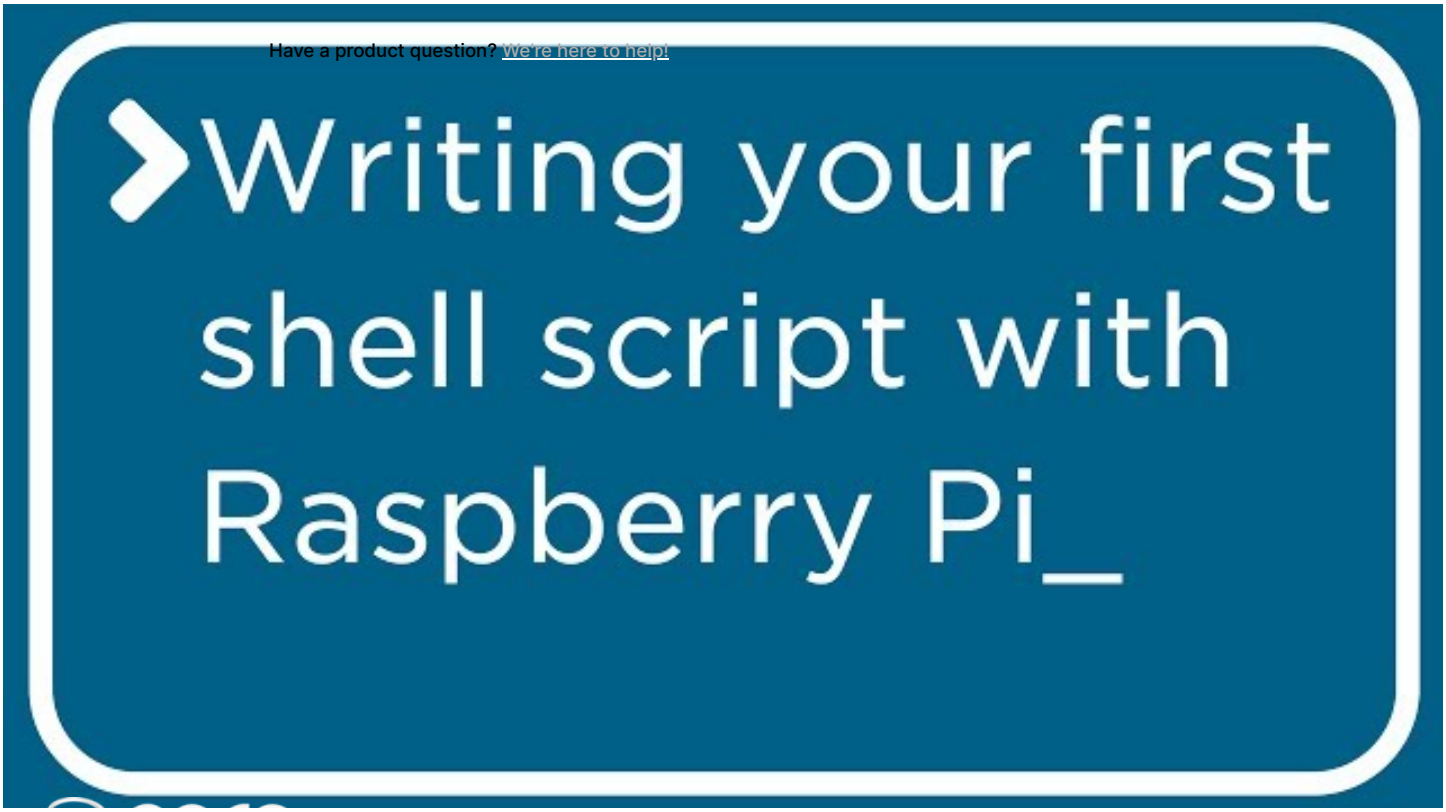
Makerverse > Makerverse Labs
Raspberry Pi > Pico > Modules

Videos

View All

PiicoDev Air Quality Sensor | Guide For Raspberry Pi Pico

Have a product question? We're here to help!



Raspberry Pi - Writing Your First Script

Raspberry Pi - Getting Started with Terminal

Have a product question? We're here to help!

How to Stress Test Your Raspberry Pi 3 Model B

Guides

3D Printed Case For Raspberry Pi Pico and PiicoDev Boards

By Tim Date 16 February 2023

Let me introduce a new 3D printable case for the Raspberry Pi Pico and the PiicoDev ecosystem. There...

#case #enclosure #developer #pico #piicodev #raspberry pi pico

Upgrade your Project for the Raspberry Pi 4

By Clinton Date 02 August 2019

The New Version of the Raspberry Pi 4 has started going out to makers everywhere. If you are wanting...

#update #upgrade #raspberry pi 4 #rpi4

Raspberry Pi 4 vs Raspberry Pi 3 Plus (Model B)

By Graham Date 22 April 2022

The Raspberry Pi 4 Model B is finally here! This is a huge leap forward for single-board computing a...

#raspberry pi #raspberry pi 4

Raspberry Pi 3 Model A+ Comparison

By Clinton Date 25 November 2018

Have a product question? We're here to help!

There is a new Raspberry Pi! The long-awaited upgrade to the Rasberry Pi 1 Model A+ (Rpi1 A+). In th...

#raspberry pi #raspberry pi 3a #3a plus #model a

Projects

Raspberry Pi Pico Long Range Radio (LoRa) Weather and Air Quality Station - Full Dashboard (DataCake + TTN), Rain-Proof and Long Range

Date 07 August 2023

Have you ever wanted to make a Weatherproof Weather and Air Quality System that transmits its edge-...

#raspberry pi #weather #the things network #raspberry pi pico #rain #air quality

Educational Workshops

Raspberry Pi Workshop for Beginners

By Michael Date 30 May 2022

Welcome to the Raspberry Pi Workshop for Beginners! Here you'll be able to follow along with our s...

#raspberry pi #workshop