Nebra AnyBeam HAT - Laser Projector HAT for Raspberry Pi

Nebra / Laser Projector NBR-0002
The Nebra AnyBeam HAT is a low cost, high definition laser projector HAT that works with your Raspberry Pi mini computer.

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Description

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The Nebra AnyBeam projects a 720p HD picture @ 60 Hz by reflecting the three colour laser and high speed driving of the MEMS mirror, and scanning the horizontal and vertical two dimensional directions.

Laser vs DLP

The power of this laser technology is endless. Laser offers smaller, lower cost, more power efficient and better quality projections than Digital Light Processing (DLP) alternatives. Unlike DLP, you will never need to focus a laser. You can project onto curved or uneven surfaces - in fact, in some cases, you don't need a surface at all and can project in mid-air.

- Pocket size
- Watch on any surface
- 150+ inch screen-size
- No need to focus
- Plug in any device with HDMI compatibility
- Fanless
- Bulbless

Features

- **Focus Free**
  In conventional projectors, it's necessary to adjust the focus. The Nebra AnyBeam uses a laser that travels straight and hardly spreads. It's always influenced by the distance, the unevenness of the projected surface, and the curved surface, so it is always in focus.
- **No Bulb**
  The Nebra AnyBeam utilises a MEMS scanner which means no bulb is required.
- **High Colour Reproducibility**
  By adopting semiconductor lasers of three colours R, G, and B as light sources, the projector displays a wide colour gamut and colourful images.
- **Low Noise**
  With operating noise 0 and low heat generation, adopting a laser with high electro-optical conversion efficiency and a MEMS scanner eliminates the need for a cooling fan, which was indispensable for conventional projectors. It can be applied more freely without worrying about operation sound even in digital signage and embedded applications.

- **Compact & Lightweight**
    - Because it is focus-free, it does not require an optical system such as a projection lens or a fan for cooling, so it's small enough to fit into your pocket.
- **Low Power Consumption**
    - It has high light use efficiency and low power consumption. The power consumption of the Nebra AnyBeam is as low as 3.0 W meaning it can be used for a long time with power bank/battery.

Use Cases

- Digital signage
- Streaming media (movies, TV shows, etc)
- Displaying presentations
- And much more

Specification

- **Resolution:** 720p/60FPS
- **Contrast:** 80,000:1
- **Ratio:** 16:9
- **Brightness:** 23 ANSI lumens (equivalent to DLP 130 visual lumens)
- **Screen size:** 150" (The projection distance is 3m depending on the environment.)
- **Operating temperature:** 5 ° C to 35 ° C (41 ° F to 95 ° F)
- **4 x buttons**

Compatible with

- Raspberry Pi A+
- Raspberry Pi B+
- Raspberry Pi 2B
- Raspberry Pi 3B
- Raspberry Pi 3B+
- Raspberry Pi 4B
- Raspberry Pi Zero
- Raspberry Pi Zero W
- Plus any other Raspberry Pi with 40 GPIO Pins