VINTAGECOMPUTERFESTIVALZURICH2025

GUESTBOOK

GAME BOY

ポケットカメラ

The GameBoy Camera, introduced in 1998, turned the handheld console into one of the earliest consumer portable digital cameras. Using a CMOS sensor, it captures 128x112-pixel images in a 2-bit gray-scale format (4 shades). The camera's lens can swivel 180 degrees, enabling front- and rear-facing shots 4 years before the word "selfie" had been coined.

The device is powered by the GameBoy's 8-bit, 4 MHz Sharp processor, leveraging the console's 8KB RAM for image processing. Photos can be manipulated with built-in software for editing and creative overlays and printed using the GameBoy Printer, which uses a proprietary printing protocol and thermal paper for monochrome image output.

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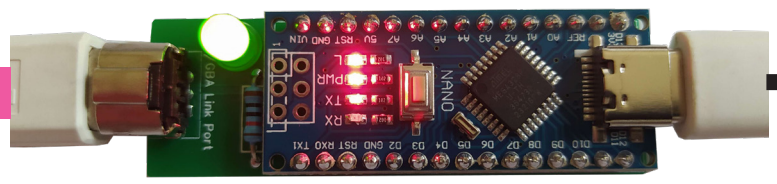
GameBoy Camera

GameBoy link cable



Arduino,
emulating the GameBoy printer

Serial protocol over USB

Bluetooth

Thermal printer

To capture and print photos from modern hardware, we emulate the GameBoy Printer's protocol using an Arduino microcontroller.*

The Arduino forwards the raw serial packets sent by the Camera to a computer over USB. On the computer, a web application using the Web Serial API receives the packets and decodes the photo.

*github.com/mofosyne/arduino-gameboy-printer-emulator

Guestbook
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