FotoBox for Raspberry Pi, Linux and macOS

FotoBox is a free open source multi platform application, that offers you the possibility to operate a photo booth (photobooth).

features

- support a variety of different DSLR camera models
- trigger photos directly or start a countdown by touching, clicking the screen, using soft-/hardware buttons, pressing keyboard shortcuts or using a presenter
- lightning fast and low-memory Linux / macOS customizable application

Linux installation

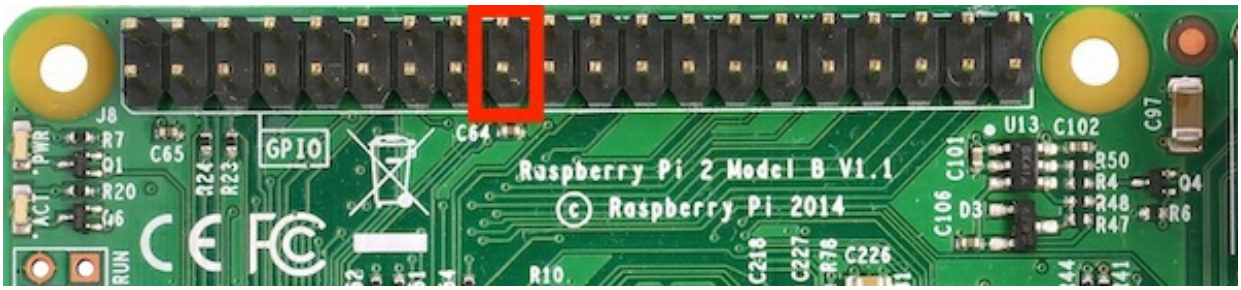
Download latest FotoBox version according to your operating system. Extract all files and execute `sudo ./install_dependencies.sh` in a terminal to install all needed dependencies automatically ***or*** follow these manual steps:

1. update your operating system: `sudo apt-get update && sudo apt-get upgrade && sudo apt-get dist-upgrade`
2. download and install Qt: `sudo apt-get install qt5-default`
3. install gPhoto2 when you are using a DSLR camera
    - **recommended way**: use gPhoto2 and libgphoto2

compiler and installer script to get latest version, make sure the default installed has been removed: `sudo apt-get purge gphoto2 libgphoto2-6`
    - use latest available gphoto2 provided from operating system: `sudo apt-get install gphoto2`

optional steps

- *Raspberry Pi*: Setting up your Raspberry Pi Model >=2 with lates Raspbian version (Buster). If you are using the official Camera Module V2 follow the official activate Raspberry Pi Camera tutorial. If you are using Raspbian Lite (minimal image without desktop), you need to install wiringPi additionally: `sudo apt-get install wiringpi`
- *Disable the screen saver*: `sudo apt-get install xscreensaver`, run `xhost +localhost` from a local terminal session (not SSH) and reboot the system. After reboot you can launch the *'Screensaver'* application and select *'disable screen saver'* from the drop down.
- *Autostart*: open autostart file with `sudo nano /etc/xdg/lxsession/LXDE-pi/autostart` add this line `@/home/pi/Downloads/FotoBox` (**adjust path if necessary**) at the end of the file.
- *Using a button*: It's possible to connect a hardware button to the Raspberry Pi GPIO (WiringPi) pins to trigger the FotoBox. You can configure dedicated pins in the application or use the default ones:



macOS installation

1. follow the short instruction to install Homebrew - The missing package manager for macOS
2. use Homebrew to install gphoto2. Paste that in a macOS Terminal prompt: `brew install gphoto2`
3. download latest FotoBox version

keyboard shortcuts

key	action
`N`, `Enter`, `Page Up/Down`, `Arrow Keys`, `Space`, `Backspace`	start FotoBox
`P`, `S`, `E`	preference dialog
`Shift` + `Escape`, `Q`	quit application

Frequently Asked Questions

Q: I have misconfigured FotoBox and now it isn't working properly anymore?

A: Start FotoBox application and press "Restore Defaults" button to load

the default settings.

Q: Is my DSLR camera supported by FotoBox?
A: Visit website libgphoto2 supported cameras to check if your camera model is listed and supports *Image Capture*. Use gPhoto2 and libgphoto2 compiler and installer script to get latest version and make sure the OS default one has been removed: `sudo apt-get purge gphoto2 libgphoto2-6`

Q: Can I use the FotoBox on Linux without X Window System (e.g. using Linux framebuffer on Raspbian Lite)?
A: Yes, that is possible because of Qt for Embedded Linux. For Example to use Linux framebuffer execute `./FotoBox -platform linuxfb:fb=/dev/fb0` or set environment variable `QT_QPA_PLATFORM=linuxfb:fb=/dev/fb0`

Q: My DSLR camera model is supported by libgphoto2 but don't work with FotoBox. How can I fix it?
A: Test if gphoto2 has access to your camera. Execute this command `gphoto2 --capture-image-and-download` in terminal to test it. If the error message *'gphoto2 could not claim the usb device'* appears, try this fix:

1. get the C code here
2. save it to a file named `usbreset.c`
3. execute `cc usbreset.c -o usbreset` to compile it
4. execute `lsusb` to get the Bus/Device ID of your camera, i.e. *'Bus **001** Device **008**'*

5. execute `sudo ./usbreset /dev/bus/usb/001/008` each time before running FotoBox

Q: Where can I report FotoBox software bugs or suggest new features?

A: GitLab issue tracker

Q: Where can I get FotoBox support?

A: German Raspberry Pi Forum or official Raspberry Pi Forum (english)

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development

Follow the normal installation instructions and additionally install the development tools according to your operating system. Paste the commands in a terminal prompt.

Linux (Debian, Raspbian, Ubuntu)

- install Linux development tools: `sudo apt-get install build-essential ccache wiringpi`
- install Qt development tools: `sudo apt-get install qttools5-dev-tools qttools5-dev qtdeclarative5-dev qtcreator qt5-doc`
- install git with tools: `sudo apt-get install git git-doc git-gui gitk`
- *optional tools:* `sudo apt-get install cmake doxygen doxygen-doc doxygen-gui graphviz`

macOS

- install macOS development tools: `xcode-select --install`
- install Qt development tools: `brew install qt && brew link --force qt && brew cask install qt-creator`
- *optional tools:* `brew install cmake && brew install doxygen`

get source code

GitLab source code: `git clone --recursive git@gitlab.com:tomikais/fotobox.git` or `https://gitlab.com/tomikais/fotobox.git`