

# Package ‘ROpenCVLite’

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**Type** Package

**Title** Helper Package for Installing 'OpenCV'

**Version** 4.130.0

**Date** 2026-05-13

**Description** Installs 'OpenCV' for use by other packages. 'OpenCV' <<https://opencv.org/>> is library of programming functions mainly aimed at real-time computer vision. This 'Lite' version installs the stable base version of 'OpenCV' and some of its experimental externally contributed modules. It does not provide R bindings directly.

**License** GPL-3

**Imports** utils, parallel

**SystemRequirements** cmake

**RoxygenNote** 7.3.3

**Biarch** false

**Encoding** UTF-8

**Depends** R (>= 4.0.0)

**Suggests** covr, knitr, rmarkdown, testthat (>= 3.0.0)

**Config/testthat/edition** 3

**VignetteBuilder** knitr

**URL** <https://swarm-lab.github.io/ROpenCVLite/>,  
<https://github.com/swarm-lab/ROpenCVLite>

**BugReports** <https://github.com/swarm-lab/ROpenCVLite/issues>

**NeedsCompilation** no

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**Repository** CRAN

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defaultOpenCVPath	<i>Default Install Location of OpenCV</i>
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### Description

This function returns the location at which OpenCV should be installed by default.

### Usage

```
defaultOpenCVPath()
```

### Value

A character string.

### Author(s)

Simon Garnier, <garnier@njit.edu>

### Examples

```
defaultOpenCVPath()
```

---

installOpenCV	<i>Install OpenCV</i>
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---

### Description

This function attempts to download, compile and install OpenCV on the system. This process will take several minutes.

### Usage

```
installOpenCV(  
    install_path = defaultOpenCVPath(),  
    batch = FALSE,  
    use_ccache = FALSE,  
    optimize_for_host = FALSE,  
    modules = c("calib3d", "core", "dnn", "features2d", "flann", "gapi", "highgui",  
               "imgcodecs", "imgproc", "ml", "objdetect", "photo", "stitching", "video", "videoio",  
               "ximgproc", "wechat_qrcode")  
)
```

### Arguments

install_path	A character string indicating the location at which OpenCV should be installed. By default, it is the value returned by <code>defaultOpenCVPath</code> .
batch	A boolean indicating whether to skip (TRUE) or not (FALSE, the default) the interactive installation dialog. This is useful when OpenCV needs to be installed in a non-interactive environment (e.g., during a batch installation on a server).
use_ccache	A boolean indicating whether to use ccache (TRUE) to speed up repeated compilations. Requires ccache to be installed and on the PATH. Defaults to FALSE.
optimize_for_host	A boolean indicating whether to let CMake detect and use the host CPU's full instruction set (TRUE) instead of the defaults (FALSE). On Windows the default is a conservative SSE4/AVX-limited build; on Unix/macOS CMake's own defaults apply. Setting this to TRUE produces a faster binary on the build machine but the result may not run on other hardware.
modules	A character vector of OpenCV modules to compile. Defaults to the full set supported by ROpenCVLite. Specify a subset to reduce compilation time when only specific functionality is needed.

### Value

A boolean.

### Author(s)

Simon Garnier, <garnier@njit.edu>

**Examples**

```
## Not run:  
installOpenCV()  
  
## End(Not run)
```

---

`isCmakeInstalled`      *Check Cmake Installation*

---

**Description**

This function checks that Cmake is installed on the system.

**Usage**

```
isCmakeInstalled()
```

**Value**

A boolean.

**Author(s)**

Simon Garnier, <garnier@njit.edu>

**Examples**

```
isCmakeInstalled()
```

---

`isOpenCVInstalled`      *Check OpenCV Installation*

---

**Description**

This function checks that OpenCV is installed and accessible.

**Usage**

```
isOpenCVInstalled()
```

**Value**

A boolean.

**Author(s)**

Simon Garnier, <garnier@njit.edu>

**Examples**

```
isOpenCVInstalled()
```

---

opencvConfig	<i>C/C++ configuration options</i>
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---

**Description**

This function returns the configuration options for compiling C/C++-based packages against OpenCV installed by [ROpenCVLite](#).

**Usage**

```
opencvConfig(output = "libs", arch = NULL)
```

**Arguments**

output	Either 'libs' for library configuration options or 'cflags' for C/C++ configuration flags.
arch	architecture relevant for Windows. If NULL, then R.version\$arch will be used.

**Value**

A concatenated character string (with [cat](#)) of the configuration options.

**Author(s)**

Simon Garnier, <garnier@njit.edu>

**Examples**

```
## Not run:
if (isOpenCVInstalled()) {
  opencvConfig()
  opencvConfig(output = "cflags")
  opencvConfig(arch = R.version$arch)
}

## End(Not run)
```

OpenCVPath

*Install Location of OpenCV*

---

**Description**

This function returns the location at which OpenCV is installed.

**Usage**

```
OpenCVPath()
```

**Value**

A character string.

**Author(s)**

Simon Garnier, <garnier@njit.edu>

**Examples**

```
## Not run:  
OpenCVPath()  
  
## End(Not run)
```

---

opencvVersion*OpenCV Version*

---

**Description**

This function determines the version of OpenCV installed within R.

**Usage**

```
opencvVersion()
```

**Value**

A character string.

**Author(s)**

Simon Garnier, <garnier@njit.edu>

### Examples

```
if (isOpenCVInstalled()) {  
    opencvVersion()  
}
```

---

removeOpenCV

*Remove OpenCV*

---

### Description

This function removes OpenCV from the system.

### Usage

```
removeOpenCV()
```

### Value

A boolean.

### Author(s)

Simon Garnier, <garnier@njit.edu>

### Examples

```
## Not run:  
installOpenCV()  
  
## End(Not run)
```

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