

### Installation

#### Linux & macOS

```
curl -LsSf https://astral.sh/uv/install.sh | sudo sh
```

#### Windows (PowerShell)

```
powershell -ExecutionPolicy ByPass -c "irm https://astral.sh/uv/install.ps1 | iex"
```

#### Homebrew (macOS)

```
brew install uv
```

### Basic Commands

#### Check Installed Version

```
uv version
```

#### Get Help

```
uv help uv --help
```

### Project Initialization

#### Create a New Project

```
uv init projec t-name # Basic project  
t
```

### Project Management

uv init — initialize project (creates pyproject.toml, .venv)

uv add [pkg], --dev — add dependencies

uv lock, uv sync — lock & sync to universal  
uv.lock file gist.github.com docs.astral.sh +3  
horoscopo-astral.com +3 docs.astral.sh +3  
docs.astral.sh +1 docs.astral.sh +1

### Virtual Environments

uv venv [--python X.Y] — create venv  
(downloads Python if missing)

uv python install ..., uv python pin X.Y —  
install and pin Python versions

### Script Support

Inline script metadata (# /// script ...) for  
dependencies & Python version

uv run --script ..., uv add --script ..., uv lock  
--script ... for isolated script execution

### Tool Execution

uvx <tool> ... – run tools in ephemeral envs

uv tool install <tool> – globally install tools  
like pipx

### pip-Compatible Interface

uv pip install, sync, compile, freeze, show,  
tree, etc. — speedier, pip-compatible

### Lockfiles

uv.lock (universal) captures exact package  
versions across platforms

.lock next to script for script-specific  
dependencies

### Extras & Utilities

uv self update, uv cache clean/prune, uv  
python dir, uv tool dir, shell completions

### Typical Workflow

```
uv init myproj # start project  
uv add requests --dev # add dependencies  
uv lock # generate uv.lock  
uv sync # sync venv  
uv run pytest # run tests in environment  
uv tool install black # globally install tools  
uv pip compile reqs.in # generate platform-  
independent reqs  
uv pip sync reqs.txt # sync environments
```

### If you're migrating from a requirements.txt file

```
# Add all dependencies from requirements.txt.  
uv add -r requirements.txt -c constraints.txt
```

### Updating Dependencies To upgrade a package

```
uv lock --upgrade-package requests
```

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