# «Script» Master

+ conf: ConfigParser

+ app: Flask

+ control: Control

+ static file(filename: PathLike[str] | str) -> Response

+ index() -> str

+ time(time: int) -> str

+ overviewZip() -> str

+ usb\_copy(filename: str) -> str

+ overview() -> str

+ search\_html() -> str

+ photo\_html(id: str = "") -> str

+ stack html(id: str = "") -> str

+ capture html(action: Literal['photo', 'stack'] = "photo", id: str = "") -> str

+ preview() -> str

+ focus(val: float = -1) -> str

+ shutdown\_html() -> NoReturn

+ reboot html() -> NoReturn

+ restart() -> str

+ pause() -> str

+ resume() -> str

+ proxy(host: str, path: str) -> bytes

+ update() -> str

+ aruco() -> str

+ aruco\_erg() -> str

+ test() -> str

+ photo\_light\_html(val: int = 0) -> str

+ status led html(val: int = 0) -> str

+ marker\_get() -> str

+ marker\_post()

+ config\_get() -> str

+ config\_post() -> str

## Control + \_\_init\_\_(self, app: Flask) -> None + start(self)

+ search cameras(self, send search: bool = True) -> None

+ capture\_photo(self, action: Literal['photo', 'stack'] = "photo",

+ sync\_exposure(self)

+ send\_to\_desktop(self, message: str) -> None

+ send to all(self, msg str: str) -> None

+ found camera(self, hostname: str, ip: str) -> None

+ receive photo(self, ip: str, id lens: str, filename: str) -> None

+ all\_images\_downloaded(self, id, folder)

+ zip\_and\_send\_folder(self, id, folder)

+ check\_and\_copy\_usb(self, file)

+ find aruco(self)

+ receive aruco(self, data: str) -> None

+ set\_marker\_from\_csv(self, file, save=True) -> None

+ switch\_pause\_resume(self, )

+ pause(self.)

+ resume(self, )

+ set time(self, time: int) -> str

+ system\_control(self, action: Literal['shutdown', 'reboot']) -> NoReturn

**ButtonControl** 

+ update(self, )

+ restart(self.)

+ set config from web(self, config: dict) -> None

+ get\_config\_for\_web(self, ) -> dict

+ get\_hostnames(self, ) -> dict[str, str]

+ get\_cams\_started(self) -> bool

+ get\_leds(self) -> LedControl

+ get\_marker(self)

+ is\_system\_stopping(self)

+ get cameras(self)

+ get\_detected\_markers(self)

### CameraControlThread StoppableThread \_init\_\_(self, control: Control) \_\_init\_\_(self, \*args, \*\*kwargs run(self) stop(self) stopped(self): boolean DesktopControlThread init (self, control: Control) run(self) MarkerCheck + \_\_init\_\_(self, marker\_coords: dict[int, ArucoMarkerCorners], marker\_pos: dict[str, list[ArucoMarkerPos]], metadata: dict[str, Metadata], cameras: d+ CameraExterior] = {}) + check(self) -> None + recalculate coordinates(self, cameras: dict[str, dict[str, np.ndarray]],

## t: pd.DataFrame) -> bool

+ get\_corrected\_coordinates(self) -> dict[int, ArucoMarkerCorners]

+ get\_filtered\_positions(self) -> dict[str, list[ArucoMarkerPos]]

+ get\_cameras(self) -> dict[str, CameraExterior]

+ rotationMatrixToEuler(self, R: np.ndarray) -> np.ndarray

+ isRotationMatrix(self, R: np.ndarray) -> bool

#### FocusStack

+ findHomography(image\_1\_kp, image\_2\_kp, matches) -> npt.NDArray[np.float32] + align\_images(images: list[npt.NDArray[np.uint8]]) -> list[npt.NDArray[np.uint8]]

+ doLap(image: npt.NDArray[np.uint8]) -> npt.NDArray[np.uint8]

+ focus\_stack(unimages: list[npt.NDArray[np.uint8]]) -> npt.NDArray[np.uint8]

#### LedControl

+ \_\_init\_\_(self, control: 'Control')

+ switch off(self)

+ starting(self)

+ waiting(self)

+ status led(self, val: float = 0) -> None

+ photo\_light(self, val: float = 0) -> None

+ running\_light(self)

+ get\_photo\_light\_color(self)

+ set photo light color(self, color)