Instruction for the drone operator:

1. Ensure that operation you are about to perform is safe and create no threats to infrastructure or your UAV.
2. Walk around the building you are about to take pictures of and make sure that there are no power lines, trees or other obstacles that you can collide with. If some obstacles are present, make sure to take that into consideration during flight!
3. It is advised to use between 100 and 400 images – depending on structure size. Generally, the more the better, however using more than 400 images requires about 60GB of memory (RAM+SWAP). Make sure that images do overlap!
4. After checking the surroundings and performing other legally required actions, start mapping chosen structure as described below:

* Fly on at least three different heights of the building creating “orbits” around it.
* Take pictures every second or so (during movement) to ensure that there is plenty of overlapping points on images.
* If it is not possible to fly on a certain level, but some areas are not visible from other perspectives, use your drone as handheld camera and take pictures in the same manner as if you were flying. Using other camera (mixing devices in dataset) can lead to errors.
* It’s useful to have somebody looking for other dangers (cars, etc.) while you are performing mapping.
* Wath out for birds! Even the smaller ones can damage your drone and harm themselves.

1. Run the application using images you have just taken. Optionally, you can check images for useless ones (accidentally made, blurred, only sky visible, etc.).