In the present work, OSQAR experiment at CERN is being introduced. The goal of this rather small experiment is a search for a hypothetical particle called axion, which could play an important role in modern physical theories. It is necessary to say, that the experimental setup as well as particular devices are still being developed or calibrated and measurement modes optimized. That is why desired functionality and reliability of the presently used equipment with a variety of different operating procedures are discussed. Preliminary results, simulations and estimation of sensitivity limitations of the current setup are also presented.