

MM27 PROTOCOL DIY MICROSCOPY

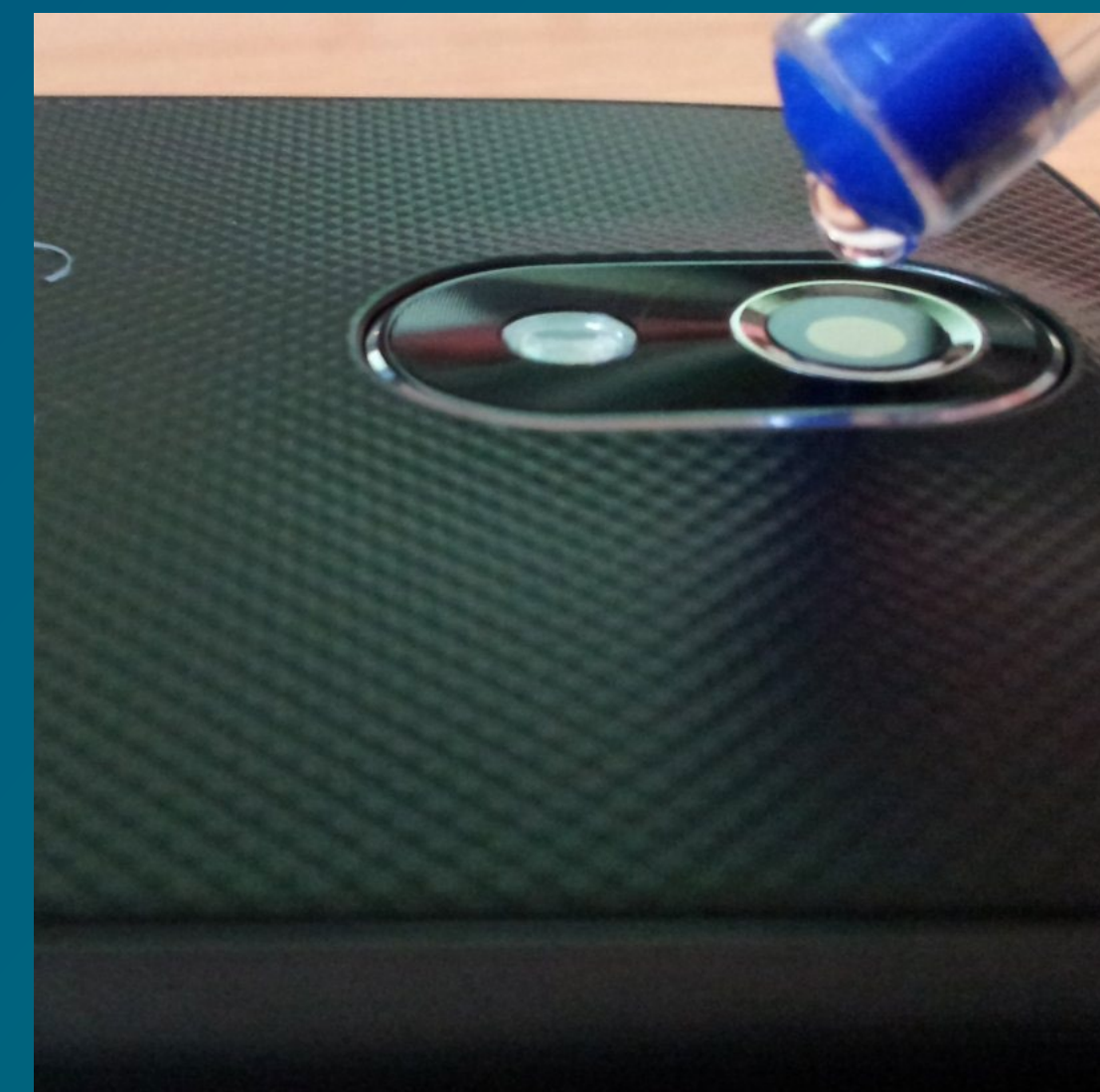
MM27 PROTOCOLE DIY MICROSCOPY

The MM27 protocol is deployed when an operational team needs help to manufacture a microscope in a frugal way.

Hardware: a smartphone and some water.

Objective: provide the operational team with a simple and robust protocol that allows a smartphone to be used as a microscope by placing a drop of water on its camera.

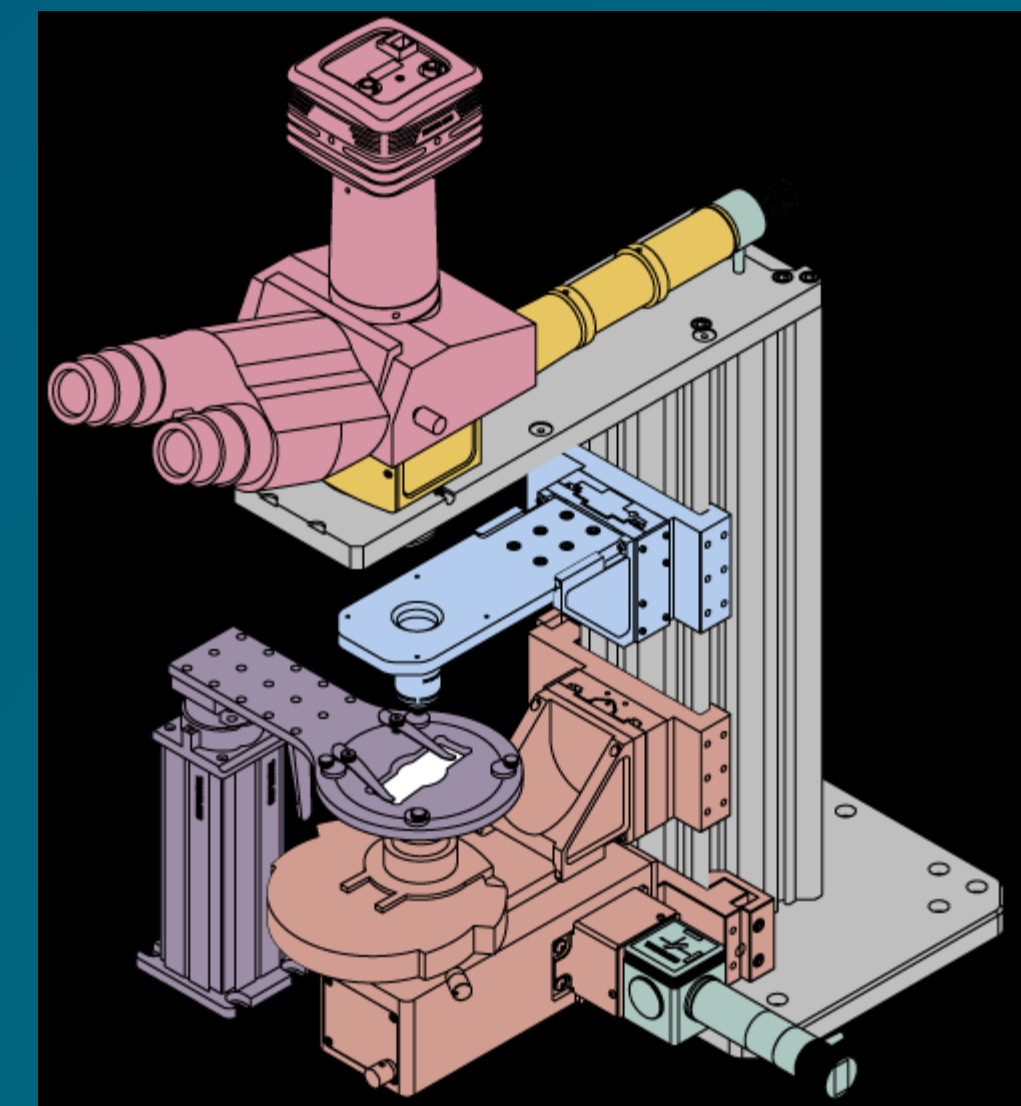
Criteria: the devices must be as reliable as possible.



MM27 PROTOCOLE DIY MICROSCOPY

Before proposing the protocol to the field agent, it is necessary to characterize a few different commercial smartphone models. For this, it will be necessary:

- measure the magnification due to the drop (by finding the same way to measure it on the different smartphones, for example by magnifying an object of known size)
- measure the effect of the size of the drop of water as precisely as possible
- develop the most efficient sample holder possible with frugal means
- make an illustrated instruction manual



MM27 PROTOCOLE DIY MICROSCOPY

The support team will follow a "collaborative mode" procedure by working in multiple teams :

1. The teams agree on how to measure the magnification of their device, in order to have a common criterion. Then they move in parallel.
2. An official test of the devices is then organised. For this, the teams agree on an object to photograph (a detail of a banknote for example), and have a limited time to take the photo..
3. The protocols and instructions for use and photos taken are sent to the operational team, who can choose.

