

## Video reporting on missions using mobile phones

### Equipping your mobile phone to produce *fully adequate* video recording

Using a properly equipped mobile phone as a mission reporter, working as a *Citizen journalism* or *mobile journalists* (MOJO) has become an alternative to traditional DSLR/mirrorless cameras to produce quite a *decent viewing* experience for your viewers, while offering us great mobility and affordability. I present my own mobile phone rig accessories as an example.

*Citizen journalism* is known as someone who reports (newsworthy) events using consumer technologies such as mobile phones. Because journalists are professionals with proper degrees and accreditation, I prefer, by far, the expression of *citizen witnesses*.

*Mobile Journalists* (MOJO) are professionals who use mobile devices, such as mobile phones, to capture and distribute news content. Their goal is not to replace professional camera persons and equipment, but rather to always have the immediate ability to produce a report under any circumstances.

By *decent viewing* I mean, *more than satisfactory viewing experience* on a smartphone, a tablet, a computer and even for church projection.

#### Mobile phones small sensors issue

Note that, despite the small sensors of mobile phones (1/2.76" for mine), their manufacturers have made noticeable advancements in lower light performance, enabling us to capture *relative* good-

quality video footage in less-than-ideal lighting conditions.

#### First, choosing a phone

Without looking for the cheapest mobile phone, I looked for a budget-friendly phone (under \$ 500) offering the needed characteristics for my video productions.

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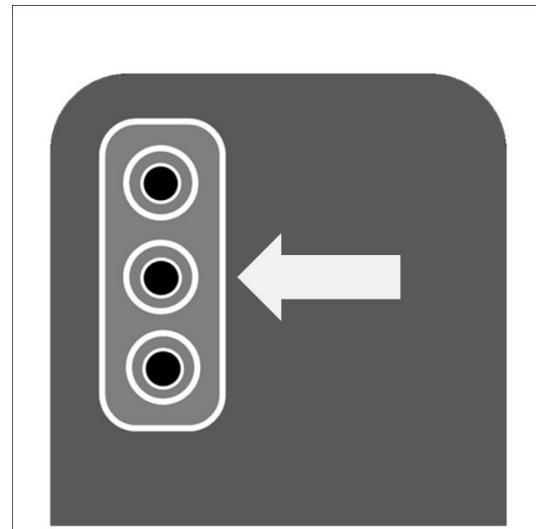
#### Good *Ingress Protection (IP)* rating

This metric indicates the level of resistance against water and dust. (Mine is IP54.) It is protected from limited dust and from water splashes, steam as well as condensation.) I also acquired a “rugged case” to protect my mobile phone.

#### Hotspot Feature

My phone offers the possibility of using it to connect another device, like a tablet or a computer, to the Internet via the 4G/5G cellular network. (The device connects to my phone via Wi-Fi.) Quite useful when Wi-Fi is not reliable or not available.

#### The camera (sensors) of my phone



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My phone cameras have those characteristics:

Back camera 1: 5 MP

Back camera 2: 50 MP \* f/1.8

27mm equiv.

Back camera 3: 2 MP

Front (selfie) camera: 13 MP f/2.0

The back camera 2 also offers OIS, optical image stabilization. OIS offers more natural videos, and slight shakes should be cancelled out.

\* By using a specific process, this camera offers a very good 2.5 MP image quality.

For video recording I use only this camera 2 (which is the default camera)

### Basic configuration for video recording

- 16:9 (Aspect Ratio)
- Full HD, 30 fps  
(resolution, frame rate)
- 1X (no digital zoom)

### Trimming video clips

It is essential to be able to trim the video clips you have recorded (to keep only the good content to be used).

### The smartphone rig

To create good-quality videos, acquiring a smartphone rig is essential, to provide not only stability but also enhance my capabilities in terms of ergonomic and accessory options.



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My Sennheiser MKE 200 Mobile Kit, which includes an external microphone.

### External microphone adaptor

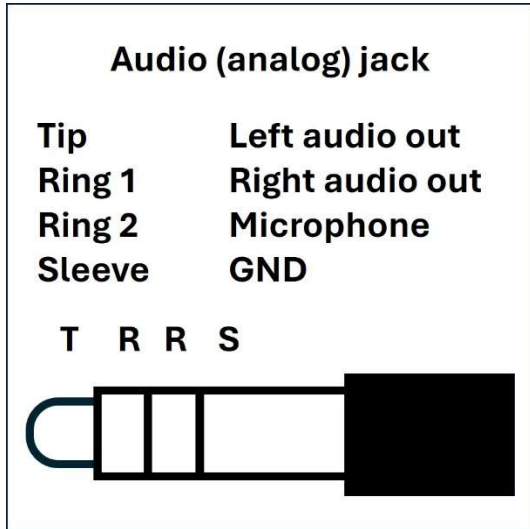


Since a mobile phone only offer a USB C connector, and microphones only have a 3.5 mm (analog) connector to connect my microphone, I needed a *dongle*: a 3.5 mm (analog) connector to a USB C (male) connector with a DAC \*.

\* Because the USB C input/output of the smartphone is digital only and the microphone is analog (only), I needed an adaptor (dongle) with a DAC, being a Digital to Analog Converter.

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A TRRS audio jack is required from the microphone to connect to the adaptor.

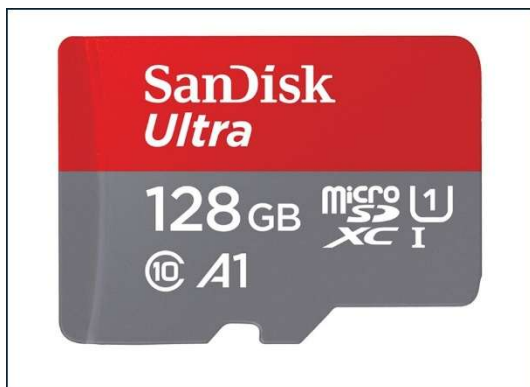


Important: before buying, you have to check if the device is compatible with your phone.

Note: It is understood that mobile phone microphones do not offer sufficient quality for acceptable video recordings.

### Optional additional photo/video file storage

The camera will save photo and video files to the DCIM (Digital Camera Images) folder.



Some would like to transfer those files to a specific folder to an additional storage micro-SD card.

Because I do not have a “large volume” of recordings (and photos) I did not acquire this extra storage capability at this time.

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### Selfie Light

These lights unable to have sufficient lighting, at ± arm length, for good video capture (with enough midtones).



### A dual cold shoe accessory

This accessory enables having the mic and light at the top of the (video) rig.



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### Travel tripod or monopod with a video head

Because of the type of video capture (short *point and shoot, run and gun*, recordings), I chose a monopod and a video head. Note that a tripod would be more stable.



### Additional baseplate (quick release)

For the tabletop tripod of the MKE 200 Mobile Kit (compliant with the one included with the video head)



### Headphones

To listen and validate audio quality after each video recording.



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### Very optional external lenses

Mobile phones offer digital zoom, which seriously reduces image quality, whereas an add-on lens may bring you closer to the subject without sacrificing image quality. 3 types of mounts are available:



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Clip-on: I am reluctant to use one of those because of the pressure that can be applied on the screen. Thread lens case: This would be the best solution but it is not available for all phones (not available for mine). Thread lens adaptor: This would be the only solution available for my phone. There are good products available, but at this point I did not decide to acquire an external lens (for my specific use).

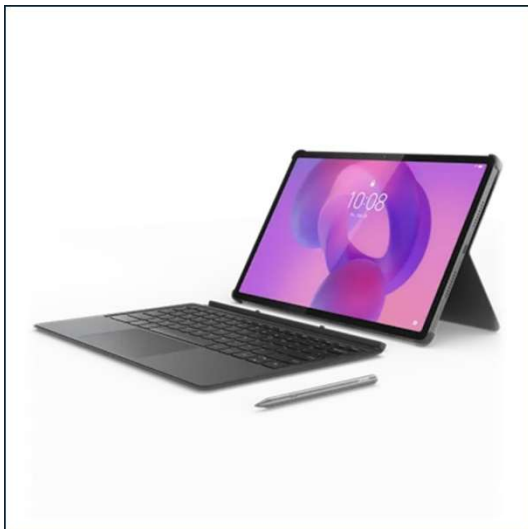
### Travel AC adaptor

To be determined for specific destinations.

### Carrying bag

I use a leather briefcase that I already have to bring all the accessories for my mobile phone along with my tablet and documents.

### My tablet (under \$ 500)



Some specifications:

- 8Gb RAM
- 128 GB storage

- Camera: 13 megapixels f/2.2 with AF
- Can produce acceptable FHD at 30 fps

Beside being used to write reports (offline), access Google applications (such as my Gmail account, Google Docs, Sheets, Slides, Drive and Meet (just to name a few), my tablet can record videos as a backup of my mobile phone rig.

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USB C microphones, USB C memory sticks and tablet support devices for tripods (or monopods) are also offered on the market.

### The final decision should be yours

The accessories presented are only here for practical purposes. You should do your own investigation to suit needs.

### Brands (presented as examples)

- Apelex
- JBL
- Neewer
- SanDisk

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- Sennheiser
- VidPro
- Ugreen
- Rode

### Some costs of my mobile phone rig

- Mobile phone I already have
- Mobile kit + mic. \$ 130
- Cold shoe accessory \$ 27
- Mic (USB/TRRS) adaptor \$ 16
- Selfie light \$ 36
- Monopod \$ 60
- Video head \$ 40
- Additional baseplate \$ 28
- Headphones I already have
- a carrying bag I already have
- a Travel AC adaptor, to be determined

**TOTAL \$ 337**

These items make a very affordable set of accessories that allow me to produce *decent* videos with my mobile phone for my target viewership.

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In the service of our Lord,

*Pierre*

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« ... how can they believe in the one of whom they have not heard... ».

Romans 10:14