VISION ANALYSIS · FOR THE FIELD TEAM

Basketball Match Filming Guide



The system tracks the match from a fixed camera and calculates each player's court position, running distance and speed. For this, the camera must not move at all and the entire court must be visible. If the camera pans, zooms or has an obstruction in front of it, the analysis cannot be performed.

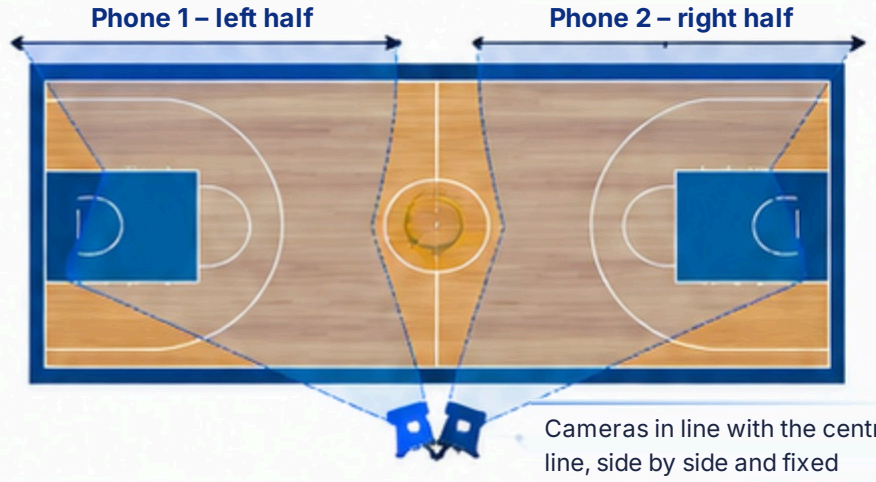
Quick summary: high vantage point + single wide shot (full court) or two fixed phones (left/right half) + 4K 30 fps + focus lock + no touching + stop/start between periods and breaks.

1 Location (most important)

- In the stands, choose the highest and furthest-back point from which the whole court can be seen.
- Be at least **10–15 m back** from the court and **elevated**.
- No railings, glass, poles, nets, spectators etc. in front. Footage filmed through glass cannot be used.
- All court lines (baselines, sidelines, centre line, 3-point lines, baskets) must be clearly visible in the frame.
- If they are not visible, move further back/higher.
- A portable platform or the top rows of the stands are ideal.

2 Camera setup

- The full court can be filmed in a single frame with one phone (preferred).
- **Alternatively, two phones can be used:**
  - Phone 1 → left half of the court
  - **Phone 2** → right half of the court
- Each frame: the two corners of its own half + basket + centre line. The centre circle must appear in both shots.
- The phone does not face the court head-on; it is angled slightly to cover the whole court.
- With two phones: same height, side by side, on fixed tripods.



Cameras in line with the centre line, side by side and fixed

3 Phone settings (before filming)

- **Landscape** recording.
- Use the **1x lens**; no wide angle (0.5x) – it distorts the edges.
- Resolution **4K 30 fps** (if unavailable, 1080p 60 fps). Turn image stabilisation **off**.
- Once framed, long-press to enable **focus/exposure lock (AE/AF lock)**; then do not touch the screen.
- Airplane mode, low brightness, long screen timeout, power bank connected.
- Storage: 1 match in 4K ≈ 20–30 GB. **Keep ≥ 100 GB free.**

4 Filming workflow

- **Start recording at least 5 minutes before** the match; from then on the tripod and frame are not touched at all.
- Throughout the match the camera is not touched, the ball is not followed, no zooming.
- Stop recording between periods (quarters) and restart for the next one (usually 4 periods → 4 files; with two phones, 8 files). Do not move the tripod.
- When the match ends, stop recording and check that the files have been saved.

5 What to send us

- **Video files** (MP4), named by phone and period:

left_period1.mp4	**right_period2.mp4**
left_period3.mp4	**right_period4.mp4**

- Jersey colours of both teams and the **referee(s)'** colour.
- **Starting five**, jersey numbers; substitutions + minutes.
- Score, **period scores** and **key-minute notes** (foul trouble, overtime, etc.).
- **Initial attacking direction** of each team (left/right).
- Match start time (by the phone clock; to the minute is enough).

! Don'ts

- Following the ball, panning/tilting the camera
- Zooming or adjusting the frame
- Holding the phone in your hand
- Filming through glass, netting, poles or railings
- Filming from ground level
- Using the wide-angle **(0.5x)** lens or image stabilisation
- Changing the camera position during the match
- Moving the tripod between periods