

# Full-Body Motion Capture Workflow with Intel RealSense Viewer

## 1. Equipment and Setup

- **Required Equipment:** Intel RealSense depth camera, tripod (optional).
- **Setup:** Mount the camera on a stable surface or tripod, positioned to capture the user's full body within a five-meter range.
- **Environment:** Ensure the background is clear and well-lit to optimize sensor performance.

## 2. RealSense Viewer Configuration

- **Open RealSense Viewer:** Launch the Intel RealSense Viewer application.
- **Device Selection:** Connect the Intel RealSense camera and select it from the device list.
- **Streaming Mode:** Set up for RGB(640x320@60fps) and Depth(640x320@60fps) streaming.
- **Recording Format:** Choose the BAG format for recording.

## 3. Positioning and Range Check

- **Distance Check:** Stand within five meters of the camera. Adjust position until full body is clearly visible in the frame.
- **Angle Check:** Ensure the camera captures a straight view of the body (front or side profile as needed).

## 4. Action Recording (8 VR Game Actions)

Perform each action three times, recording each action separately:

### Actions to Perform

1. **In-Place Walking**(原地行走) :Simulate walking on the spot.
2. **One-Legged Balance**(金雞獨立): Stand on one leg and balance.
3. **Kicking**(踢球): Perform a gentle forward kick.
4. **Power Kick** (奮力踢球): Perform a forceful kick, as if aiming at a target.
5. **Dodging** (閃躲): Quickly lean or step to the side.
6. **Touching/Reaching** (觸摸): Extend a hand to touch or reach for an object.
7. **Single-Hand Block** (單手格擋): Lift one hand as if blocking.
8. **Bend Down to Pick Up**(彎腰撿拾): Bend and reach down as if picking up an object.

## 5. Recording Process

- **Start Recording:** Begin recording for each action by clicking the "Record" button.
- **Perform Action:** Execute the action three times.

- **Stop Recording:** After completing three repetitions, stop the recording and save the file.
- **Save File:** Name each BAG file according to the action performed and number (e.g., "InPlaceWalk\_1.bag").