

# Technical Requirements – Snow Globe Shake

Challenge is accessible on Memberspot: <https://pl-coding.mymemberspot.io/library/jx3b7Qik9ip5qpNI8IF2/CAxRTS5yWwDcZ19gwHz0/zmNW7qCGGLX7MdeHHaie/details>

## Scenario

A festive mini-app where shaking the phone activates a snow globe animation.

## Figma Mockups

<https://www.figma.com/design/ILcf8BTbExJf1drvKksZ2O/Winter-Magic-Series?node-id=35-590>

## Font - [Montserrat](#)

## Feature Goal

Implement an interactive snow globe that reacts to device shaking (via accelerometer). Once motion is detected, a snowfall animation should start, showing snowflakes falling inside the globe for several seconds.

## Requirements

### Title

- Positioned above the globe.
- Text: “*Winter Magic*”.
- Centered horizontally.

### Snow Globe

- Positioned in the center of the screen.
- The globe element and the inner scene can be found in the provided Figma mockups.
- All visual parts are static.
- The only animated part is the snowfall occurring inside the globe.



## Interaction & Behavior

- Uses Accelerometer Sensor to detect the shake gesture.
- When the device is shaken:
  - A snowfall animation starts (isSnowing = true).
  - A collection of snowflakes is generated at the top area inside the globe.
  - Each snowflake falls vertically from top to bottom.
  - All snowflakes stay within the boundaries of the globe during the animation.
  - When all snowflakes reach the bottom, the animation ends (isSnowing = false).

## Snowflakes

- There are two types of snowflakes:
  - a. White circles (dots) — diameter from 1 dp to 6 dp.
  - b. Snowflake shapes — available for export in Figma.
- Total snowflake collection: **100 items**.
- Each snowflake's initial **X-position** is randomly generated within the globe's bounds.
- Each snowflake has a **random animation delay** between 0 and 3 seconds, so they start falling at slightly different times.
- The **falling duration** of each snowflake is **3 seconds** (top to bottom).
- Movement is strictly **vertical**.
- All snowflakes must remain **inside the globe area** throughout the animation.

## 🤔 What's Allowed?

- Standard Android / Jetpack libraries.
- Use Material 3 components or simple custom UI elements.
- No 3rd party libraries are allowed or would be required to complete this challenge

## ⚠️ What's not important

- Responsiveness across every device size or orientation is not mandatory.
- Realistic physics or turbulence of snowflakes.
- Interaction with objects inside the globe.
- Light/Dark mode support.

## 🔗 Useful Links for This Challenge

- [Sensors Overview](#)
- [Motion sensors](#)
- [Full Guide to Jetpack Compose Animations](#)
- [Quick Guide to Animations in Compose](#)
- [Value-based Animations](#)
- [Jetpack Compose Animation Codelab](#)

## Submission & Rewards

- Successfully submitting this challenge via the `/submit-challenge` command on Discord grants you **100 XP**.
- Your submission must include:
  - a. A **Gist link** with your implementation.
  - b. A **screen recording** (max 20 seconds) showing:
    - The idle state (no snow).
    - Device shaking triggering snowfall.
    - Snowflakes falling vertically inside the globe.
    - The globe returning to the calm state.