Dataset Description: FMCW Radar Raw Data for One and Two Persons taken by LITIV Research team of Polytechnique Montreal

This folder contains FMCW radar raw data collected for three different persons in two laboratory environments.

Folder structure:

1. The folder `1_one_person_raw_fmcw_data/` contains FMCW radar raw signals for three persons individually.

- Person 1 is indicated as `1person`.
- Person 2 is indicated in the folder name with `v2`.
- Person 3 is indicated in the folder name with `v3`.
- If the folder name contains `LAB2`, this means the data was recorded in Lab 2.
- Otherwise, the data corresponds to Lab 1.

2. The folder `2_persons_raw_fmcw_data/` contains data collected in two different laboratory environments for 2 persons at the same time in the LAB1 and LAB2.

3. There are also additional folders containing in the folder `other_positions`
- FMCW radar data for two persons at the same time (for testing multi-person detection capability).
- Intermediate positions between target points to test the generalization capability of the model.

Structure of each data folder:

- Each data folder corresponds to a specific scenario, and its name indicates the ground truth information (target angle and distance).
- Each folder contains 18 files:
  - 9 `.cf32` files for the 9 receive antennas.
  - These `.cf32` files store the complex FMCW radar raw signals.

Naming convention:

- The folder name includes the ground truth values:
  - Angle of the target.
  - Distance of the target.

Usage:

- This dataset is designed to evaluate the capability of models in various challenging scenarios, including:
  - Single-person detection.
  - 2-person detection.
  - Testing in different lab environments (Lab1 and Lab2).
  - Intermediate positions to assess model generalization.