

Protocol of the data collection process for the project
Non-intrusive fall recognition using smart floor

First we want to thank you for participating at the data collection event for our project. With this short text we want to explain how the data collection process will be performed.

The first step is to fulfill a short anonymous survey which is given with this text.

Then each participant will be called one at a time to perform the test and return the fulfilled survey.

The test is composed of the following seven events:

1. A forward fall on the knees
2. A forward fall with forward arm protection
3. A forward fall ending lying flat
4. A forward fall on the knees with rotation, ending in the lateral position
5. A lateral fall ending lying flat
6. A lateral fall ending lying flat with recovery
7. A forward fall ending lying flat with recovery

The first five events will be registered during a time window of 5s, and after the fall, the participant must hold the ending position until the notification. The position must be maintained as if a real debilitating fall occurred.

The last two events will be registered during a time window of 10s, where the participant must fall on the floor, raise itself up and then walk from the floor.

The simulation of fall events is a serious process and must be conducted in the proper way to prevent injuries and as if a real dangerous fall occurred to ensure data quality. All the tests are supervised by our team members and shields for knees and elbows can be requested.