

## IMPACT MAB LIB

### “MODEL1” BY DARWIN BIOMEDICAL

**For** people with impaired movement, such as Parkinson’s disease patients, people affected by TBI (traumatic brain injuries) or elder people due to simple aging, **it’s a challenge to** perform a safe gait and make safe displacements during their daily lives.

**Today, their best option is** to use mobility aids like canes, walkers, rollators or wheelchairs (or, in worst case scenarios, avoid walking) **which, because of** the high negative impact these diseases have in their stability and motion control, **yields** in general instability during their displacements that frequently makes them fall.

**Thus, there is a need** for identify how these diseases modify their gait, how it is translated to the mobility aid used and provide a proper response to the user **which, if solved, would have the impact of** allow a safe walking that develops a more active way of living, which translates in a high positive impact in physical and mental health.

**Solving this need can be achieved by** developing a device (a rollator, the MODEL1) that protects the users from falls and adapts to their needs in real time **and will be demonstrated by** evaluating the impact the device has in the users by comparing standardized gait parameters users generate between their daily mobility aid and the rollator. Also, we aim to prove the impact the device has in the user during the years of active use of it.