Motivation:

Peak Power and Energy (PP-ER) Requirements in a Powered ankle Prosthesis is a challenging issue

There is a need for new actuation concepts

Goal:

1. We prepare a matlab program, and include Parallel Springs and Uni-directional parallel springs to an SEA concept and investigate on PP-ER of the SEA+PS and SEA+UPS

2. We search for the cases ‚if' and ‚How' it would be possible to have an actuation concept that could require less PP and ER at the same time w.r.t an SEA

3. If these concepts are not promising, what could be other alternative actuation concepts? (e.g. The possibility for inclusion of a damper element)