

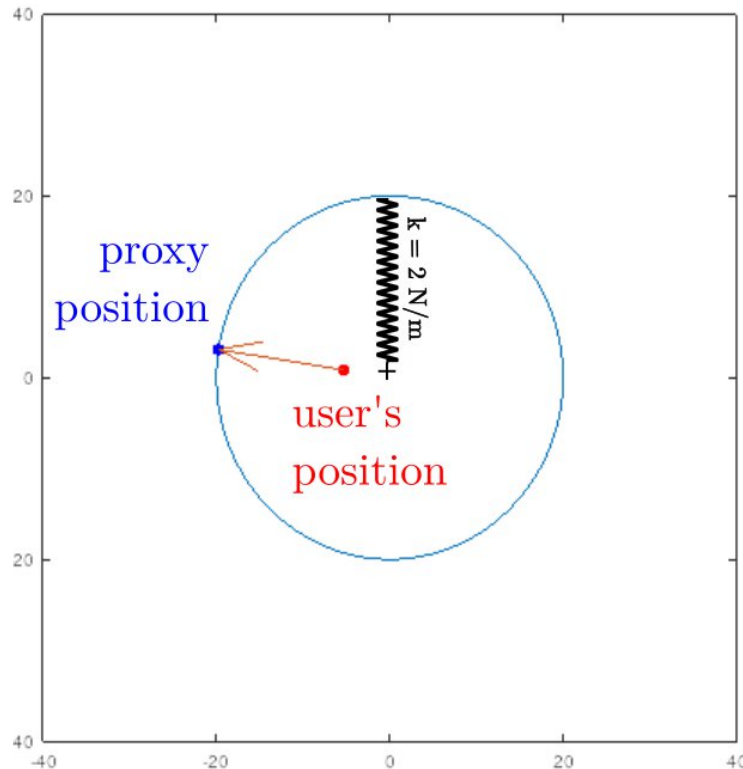
INF644 : Virtual/Augmented Reality & 3D Interactions

Travail pratique

Design an interaction between the user and a virtual disk using the haptic proxy paradigm. The disk has radius 20 and it is centered in $[0, 0]$ m.

Starting from the template code TPX_template.m, the algorithm should

- show the position of the proxy whenever different from that of the user,
- calculate the force applied on the user, modelling the disk as a spring with elastic constant of 2 N/m.



Then, in the remaining time, consider three extensions of the work:

- calculate the force applied on the user, modelling the disk as a spring with a *variable* elastic constant: from 1 N/m at the external circle to 10 N/m at its center.
- extend the interaction to consider a 3-dimensional sphere.