# EasyDyn problem: 2 wheels connected by a spring on a circular path

O. Verlinden, G. Kouroussis

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## 1 Description of the system

The considered system is represented in figure 1 and consists of 2 wheels rolling without sliding on a circular path, and connected by a spring. The system owns two degrees of freedom corresponding to the angles of segments OC and OC2 with respect to the vertical. The dimensional and inertial parameters are given on the figure.
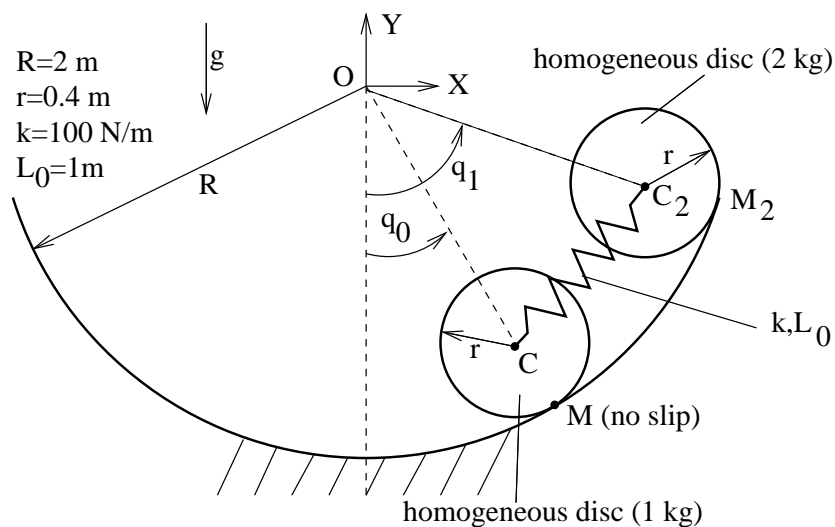


Figure 1: Wheels connected by a spring on a circular path

## 2 Requested results

It is asked to determine the equilibrium position of the system.

## 3 Typical results

The equilibrium configuration corresponds to $q_0$=0.4088 rad and $q_1$=-0.2001 rad