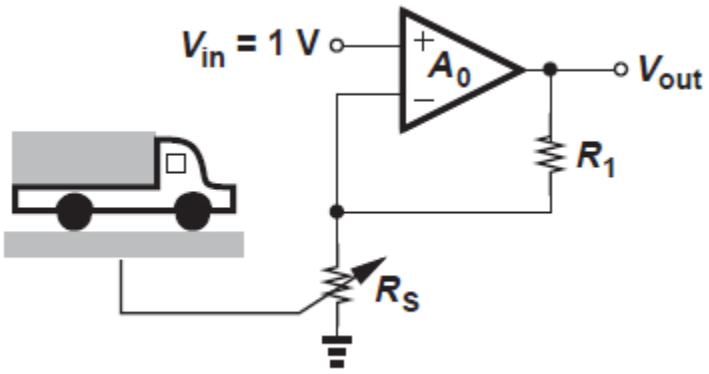
Teach. Assist. Melih BİLMEZ

EHB 262E: ELECTRONICS II
Homework 4
Due date: June 13, 2021 23.59



A truck weighing station incorporates a sensor whose resistance varies linearly with the weight: $R_S = R_0 + \alpha W$. Here R_0 is a constant value, α a proportionality factor, and W the weight of each truck. Suppose R_S plays the role of R_2 in the noninverting amplifier as shown in the figure. Also, Vin = 1 V. Determine the gain of the system, defined as the change in Vout divided by the change in W. (Assume that A_0 is very large.)