

# Golden Rules

## Student Group

First Name	Surname	Matrikel Nr.

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## Golden Rules

Explain the Golden Rules of the operational amplifier.

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### Op-Amp zero adjustment without feedback

Build the following circuit in [figure 1](#) with the power supply and a multimeter.



Fig. 1: Zero adjustment

$U_{DD} = 10\text{V}$ ,  $U_{SS} = -10\text{V}$ ,  $R_1 = 10\text{k}\Omega$ ,  $R_2 = 220\text{k}\Omega$

Adjust the output of the Op-Amp to zero. Describe your results and explain them.

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How can the circuit be improved? Draw an improved version and explain it.

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