

THE 741 OPERATIONAL AMPLIFIER

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On behalf of The World Association of Technology Teachers

W.A.T.T.



World Association of Technology Teachers

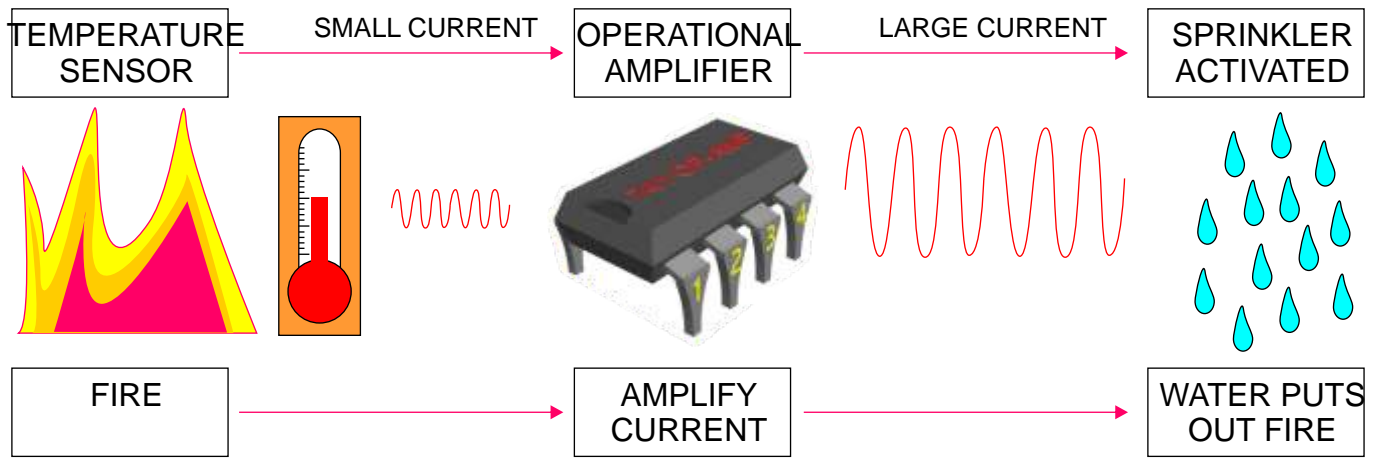
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1. The systems diagram below shows a temperature sensor, an operational amplifier and a sprinkler system. They work together to produce an affective fire prevention system. Explain how the three subsystems work together. In particular explain the role of the operational amplifier and the concept of GAIN.



2. The incomplete systems diagram below, shows how a small current (sometimes called a signal) is amplified by an Operational Amplifier to produce a larger current (signal). Draw an accurate diagram representing the operational amplifier, in the PROCESS section of the systems diagram.



3. Name five different sensors and explain how each one could be used. For example, a temperature sensor could be used to detect a fire in a fire prevention system.

A. SENSOR NAME: _____

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EXPLANATION: _____

B. SENSOR NAME: _____

EXPLANATION: _____

C. SENSOR NAME: _____

EXPLANATION: _____

D. SENSOR NAME: _____

EXPLANATION: _____

E. SENSOR NAME: _____

EXPLANATION: _____

