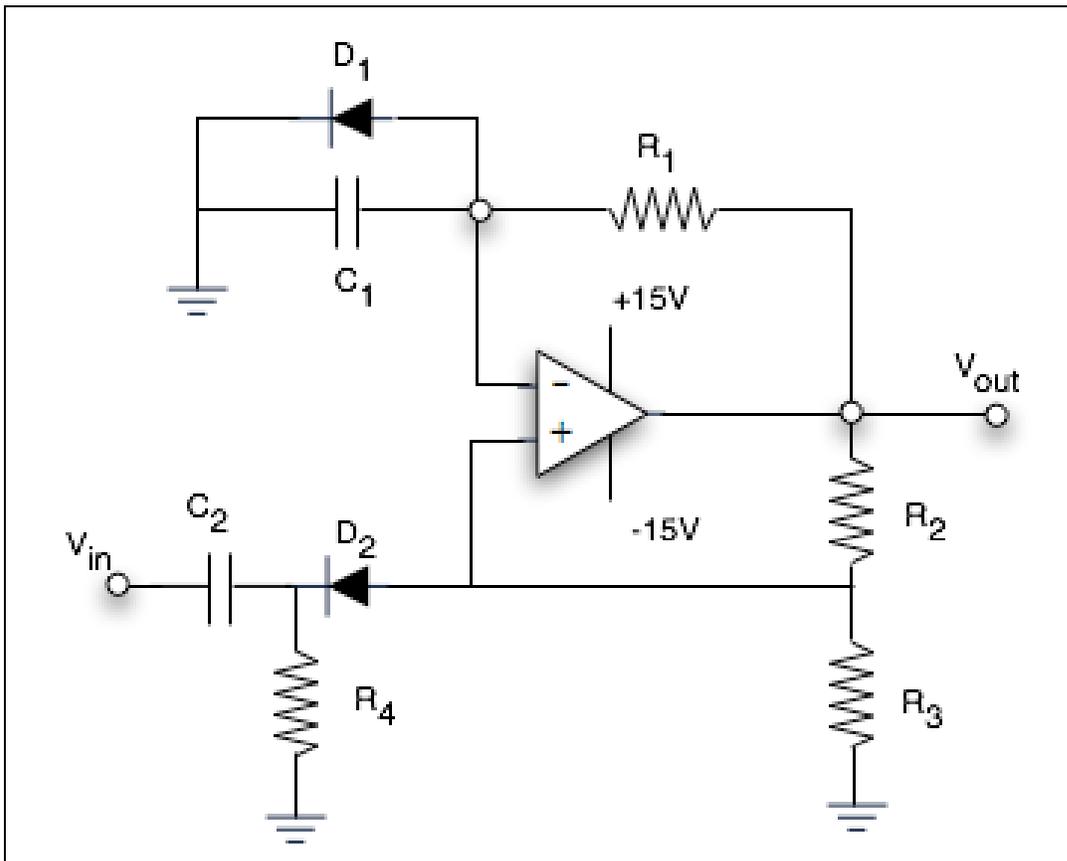


The schematic bellow is for a monostable vibrator (one-shot). Such a circuit is stable in one output state (monostable).

- Analyze the circuit operation and find out which state is stable for $V_{in} = \text{const}$.
- If V_{in} changes abruptly, is the rise or fall of V_{in} producing a pulse at the output?
- What is the nature of the output pulse?
- Which components in the circuit determine the pulse duration ?



Use the following component values: $R_1 = 100k$, $R_2 = 27k$, $R_3 = 47k$, $R_4 = 470k$, $C_1 = 0.01\mu F$ and $C_2 = 1000pF$.