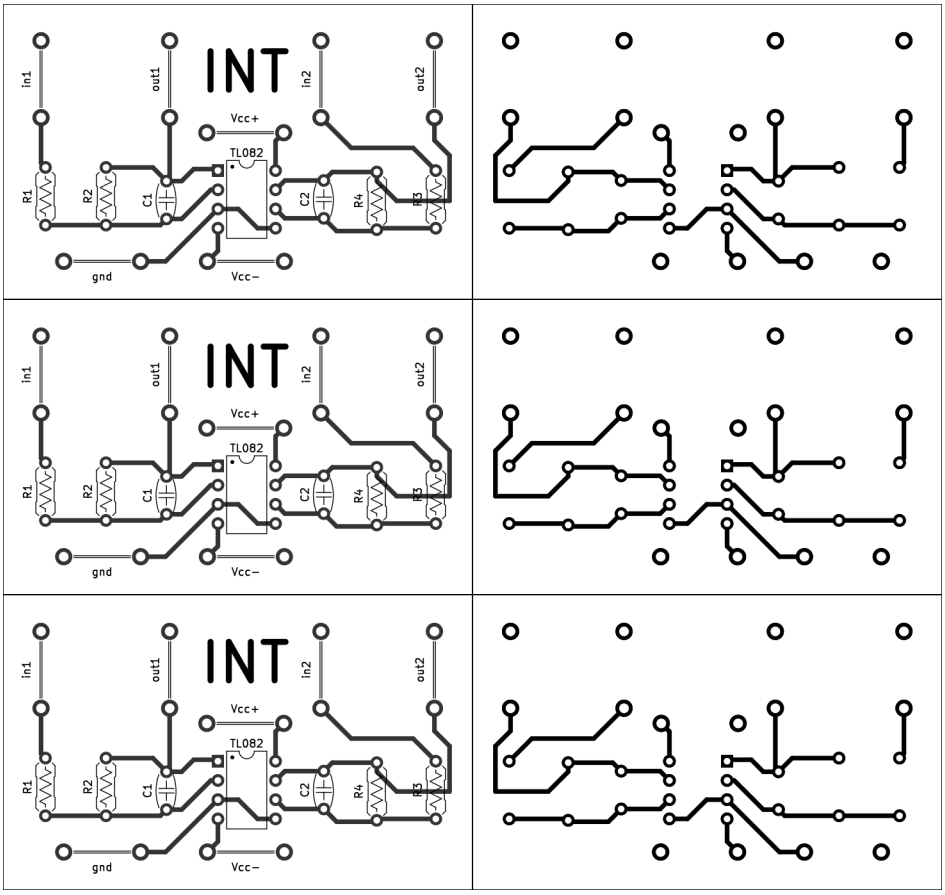

Integration Paper Circuit

Integrates the input signal.

$$V_{out} = -1/RC \int V_{in} dt$$

Recommended values:
R1&R3: 10kΩ
R2&R4: 1MΩ
C#: 8nF

Try to use low tolerance/leakage for R1, R3, C1, and C2.

R2 and R4 are just to prevent drift in feedback capacitors. Choose a high value for these.

Differentiation Paper Circuit

Differentiates the input signal.

$$V_{out} = -RC(dV_{in}/dt)$$

Recommended values:
R1&R3: 1kΩ
R2&R4: 100kΩ
C#: 1nF