A liquid coating device for coating a solution on a substrate to form a film includes a chuck for rotatably supporting the substrate, a nozzle for supplying the solution on the substrate, a heater provided in the nozzle for changing a temperature of the solution, a sensor for measuring a temperature of an ambient atmosphere of the substrate, and a controller for controlling the heater according to the measured temperature. Thus, a solution having a temperature corresponding to the temperature of the ambient atmosphere is supplied from the nozzle to the substrate.

8 Claims, 1 Drawing Sheet