**Procedure:**

* **LM35 takes the surrounding temperature as analogue input.**
* **It sends the data to Arduino UNOs analog input (A0 pin).**
* **Arduino UNO, depending on the temperature can perform the following action:**

1. **FAN OFF: Power off the fan when temperature is below or equal to 20C. Show “Fan OFF” in LCD display. Power off the Bi-polar LED.**
2. **SPEED-1: Set the power of the fan to speed 1 when temperature is above 20C. Show “SPEED 1” in LCD display. Power the Bi-polar LED so that it glows Yellow.**
3. **SPEED-2: Set the power of the fan to speed 2 when temperature is above 30C. Show “SPEED 2” in LCD display. Power the Bi-polar LED so that it glows Yellow.**
4. **SPEED-3: Set the power of the fan to speed 3 when temperature is above 35C. Show “SPEED 3” in LCD display. Power the Bi-polar LED so that it glows Red.**

* **Arduino UNO sends the speed data to LM293D motor driver IC. The IC then powers the 12V motor using data provided by the microcontroller. Here, the IC is used because Arduino can provide a maximum of 5v power supply which is not enough to power the 12v DC motor.**