

ECE 411- Team 11

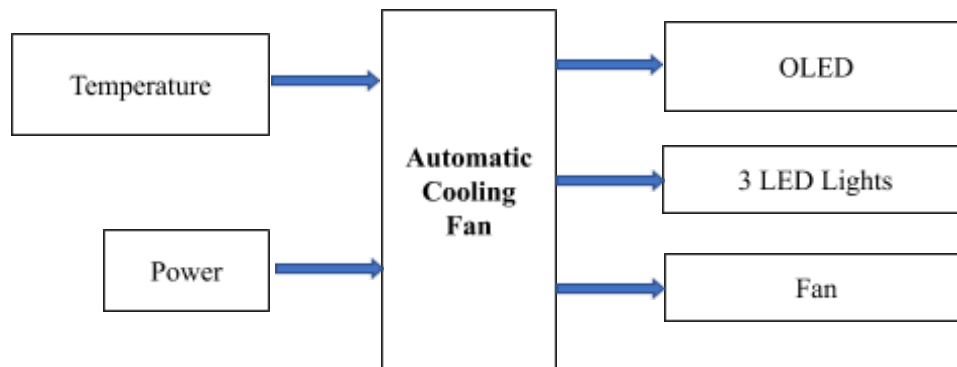
Qingchuan Hou

Brandon Garcia

Yudi Bao

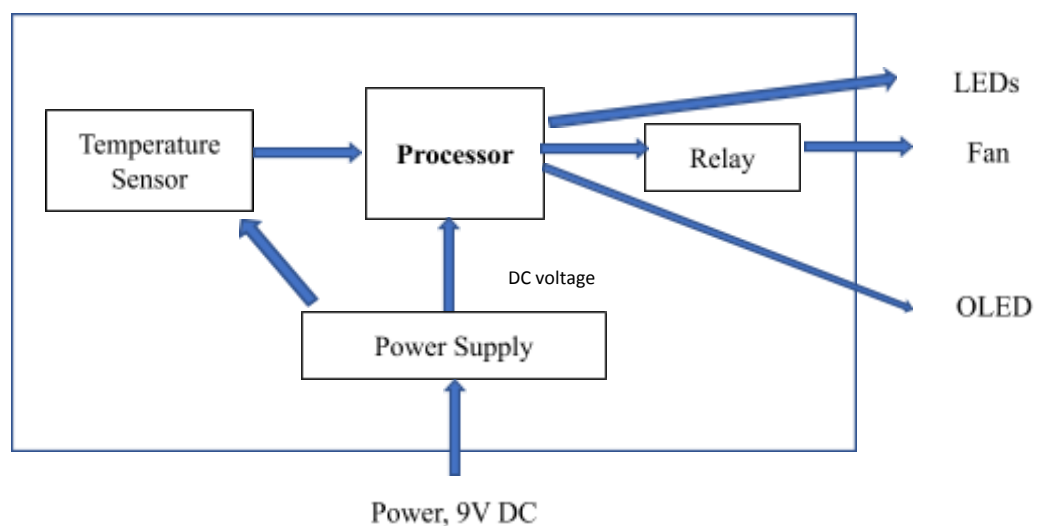
Yikun Wang

### Automatic Cooling Fan: Level 0

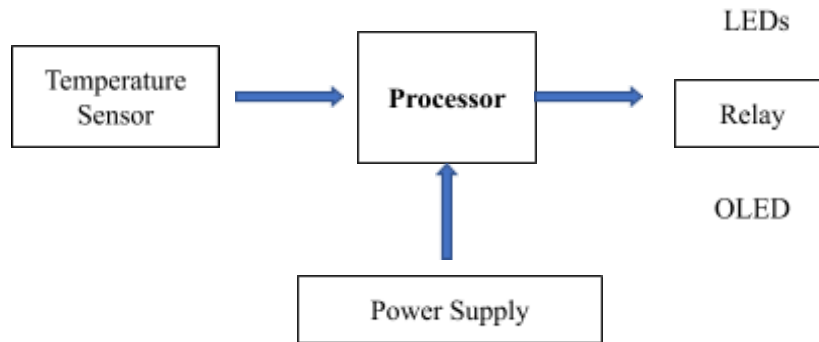


Module	Automatic Cooling Fan
Inputs	Temperature sensor signal Power: 9V DC
Outputs	OLED output signal LED output signal Relay
Functionality	

### Automatic Cooling Fan: Level 1

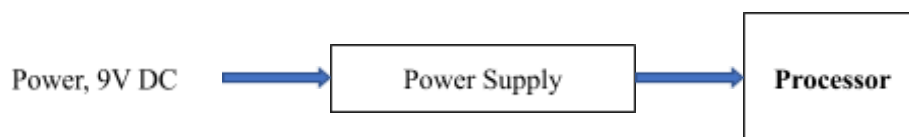


### Processor: Level 1



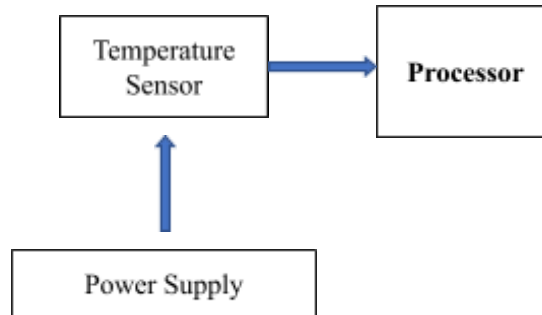
Module	Processor
Inputs	Temperature sensor signal
Outputs	Relay 3LED OLED
Functionality	The processor will receive input from the temperature sensor and output the LED color and temperature, which will send signal to Relay for fan power.

### Power Supply: Level 1



Module	Power Supply
Inputs	Power: 9VDC
Outputs	Processor: 3.3V
Functionality	This will input the voltage and convert it to the operating processor voltage of 3.3V.

### Temperature Sensor: Level 1



Module	<b>Temperature Sensor</b>
Inputs	Power supply: 2.7-5.5V
Outputs	Processor: 0.1V-2.0V
Functionality	The temperature sensor is powered by 3.3V and depending on the temperature outputs a voltage from 0.1V-2.0V, which converts to degrees.

### Relay: Level 1



Module	<b>Relay</b>
Inputs	Input Signal: 0.3VDC- 125VDC Power: 3.3VDC
Outputs	Fan: 9VDC
Functionality	The goal is to switch to a higher voltage(9VDC) when getting an input signal between 0.3to 125VDC and power the fan with 9V.