**Thermal Temp Sense Power Consumption**

|  |  |  |  |
| --- | --- | --- | --- |
| **Device** | **Amps** | **Voltage** | **Power** |
| Raspberry Pi 4 Model B | 3 (min)  2.5 (if power supply downstream consumes less than 500mA in total.) | 5 | 15W |
| Arducam 5MP Camera | 300mA (Peak Current) | 5 | 1.5W |
| Vilros RP fan | 150mA | 5 | 0.75W |
| MLX90640 Thermal Camera | <23mA | 3.3-5 | 0.11W(Max) |
| 4in HDMI LCD | 200mA | 5V | 1W |

Total consumption of components downstream is 3.36W.

**Power meter test**

**Peak Start Up**

* Consumed max 6.6 W

**System in Idle (No program running, only fan and LCD screen on)**

* Consumed 5.6 W

**Running Program for 2hrs**

* 8.6 W

Working on run time of LCD screen. If we can switch on and off the LCD using the Facial Recognition as an input, we could save power.

The LCD Technical Data says, “When working with a 5V input, the current is about 200mA with back light on and 30mA with back light off.

**Component Sources**

[**https://www.amazon.com/HDMI-LCD-Resolution-Resistive-Screen/dp/B07P5H2315/ref=sr\_1\_1\_sspa?keywords=4+inch+hdmi+lcd+ips+display+800x480&qid=1646589038&sprefix=4+inch+HDMI+LCD+IPS+Display+%2Caps%2C110&sr=8-1-spons&psc=1&smid=A2SA28G0M1VPHD&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEzRFUyWlU5VUhWMVgwJmVuY3J5cHRlZElkPUEwNzk1OTM1NTVVRklYQ0pGSDRNJmVuY3J5cHRlZEFkSWQ9QTAxODk1NzMyTzQ4MU1RWjE0WkRIJndpZGdldE5hbWU9c3BfYXRmJmFjdGlvbj1jbGlja1JlZGlyZWN0JmRvTm90TG9nQ2xpY2s9dHJ1ZQ==**](https://www.amazon.com/HDMI-LCD-Resolution-Resistive-Screen/dp/B07P5H2315/ref=sr_1_1_sspa?keywords=4+inch+hdmi+lcd+ips+display+800x480&qid=1646589038&sprefix=4+inch+HDMI+LCD+IPS+Display+%2Caps%2C110&sr=8-1-spons&psc=1&smid=A2SA28G0M1VPHD&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEzRFUyWlU5VUhWMVgwJmVuY3J5cHRlZElkPUEwNzk1OTM1NTVVRklYQ0pGSDRNJmVuY3J5cHRlZEFkSWQ9QTAxODk1NzMyTzQ4MU1RWjE0WkRIJndpZGdldE5hbWU9c3BfYXRmJmFjdGlvbj1jbGlja1JlZGlyZWN0JmRvTm90TG9nQ2xpY2s9dHJ1ZQ==)

[**https://www.raspberrypi.com/products/raspberry-pi-4-model-b/specifications/**](https://www.raspberrypi.com/products/raspberry-pi-4-model-b/specifications/)

[**https://www.adafruit.com/product/4407?gclid=CjwKCAiA1JGRBhBSEiwAxXblweQ8xXP0QJQuLMgudVfR5lM5nqk02d7hKvamLLGQpHTyfouc58VQRhoCx5YQAvD\_BwE**](https://www.adafruit.com/product/4407?gclid=CjwKCAiA1JGRBhBSEiwAxXblweQ8xXP0QJQuLMgudVfR5lM5nqk02d7hKvamLLGQpHTyfouc58VQRhoCx5YQAvD_BwE)

[**https://www.amazon.com/stores/page/18A2ABD7-B791-42A4-87AA-0CF0C968FF1B?ingress=0&visitId=404aa5ee-c4a8-42cb-b731-9bb1af77d997**](https://www.amazon.com/stores/page/18A2ABD7-B791-42A4-87AA-0CF0C968FF1B?ingress=0&visitId=404aa5ee-c4a8-42cb-b731-9bb1af77d997)

[**https://vilros.com/products/vilros-raspberry-pi-fan**](https://vilros.com/products/vilros-raspberry-pi-fan)