



Senior-Meal

Hiporexia. Problema de falta de apetito en los adultos mayores



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Trinidad Yáñez



Entrevistada

Rosa Eugenia Patri Merino

✓ 96 años

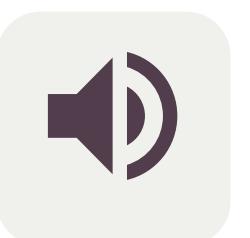
✓ Vive sola

✓ Locertan y pleascledine

✓ Presión Alta y Artrosis



Olvida Comer
El apetito no le
indica que debe
comer



El citófono
No lo escucha



Puerta Abierta
Peligro de intrusos

A close-up photograph of an elderly woman with short, light-colored hair. She is wearing a red t-shirt and has her right hand resting against her head, appearing to be in thought or distress. In her left hand, she holds a fork with a small amount of food on it, consisting of some green leaves and possibly a piece of fruit. A glass of water is visible in the lower-left foreground.

Hiporexia

pérdida gradual del apetito comúnmente en personas mayores

Causado por:

- Falta de ejercicio
- Sedentarismo
- Soledad
- Depresión
- Enfermedades comunes en la vejez



Desnutrición a falta de
nutrientes básicos
agravando más sus
problemas fisiológicos
como patológicos

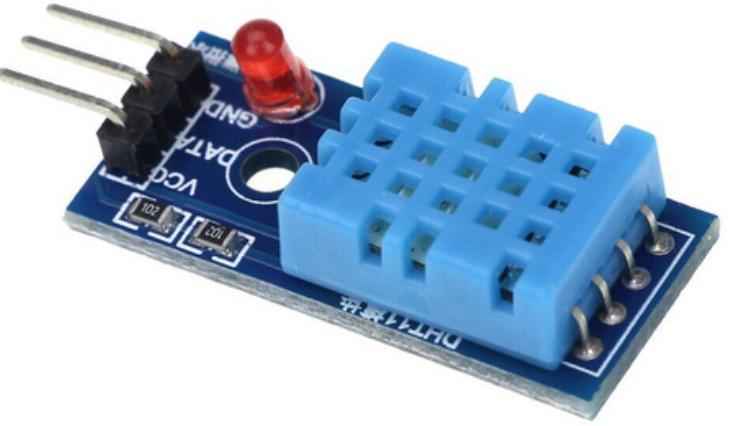
Los Sensores

¿Cómo lo medimos?



Despensa

Sensor Ultrasónico HC-SR04



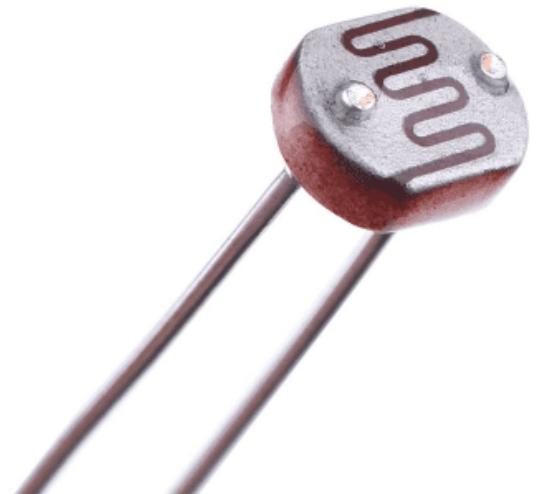
Cocina

SensorDHT11



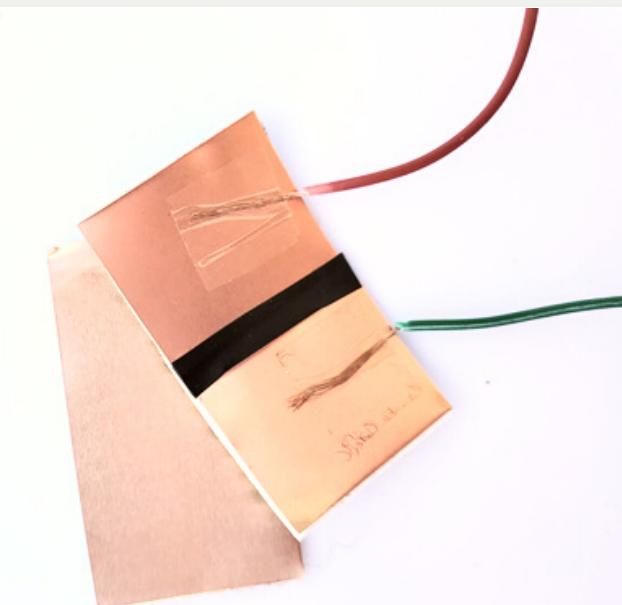
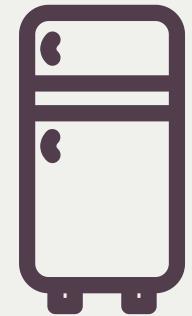
Cajón

Sensor de Contacto



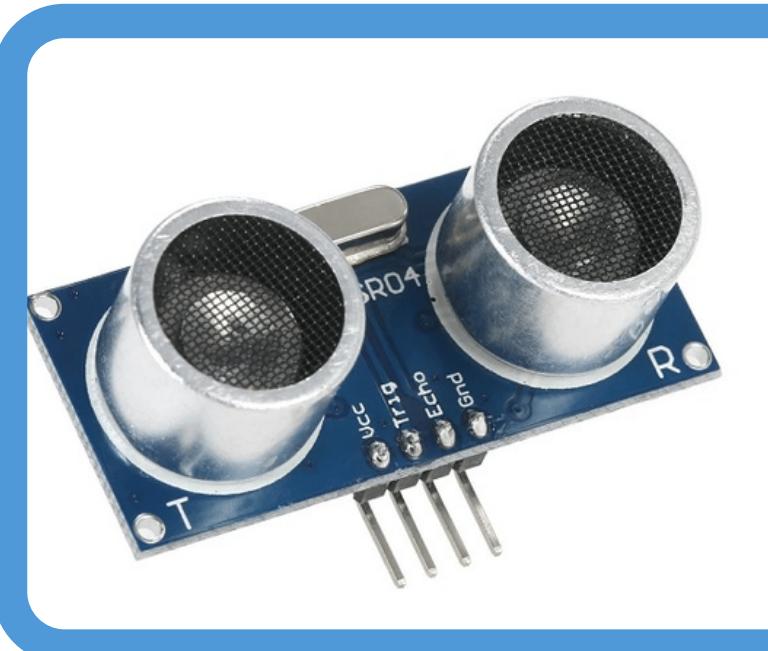
Refrigerador

Sensor de Contacto



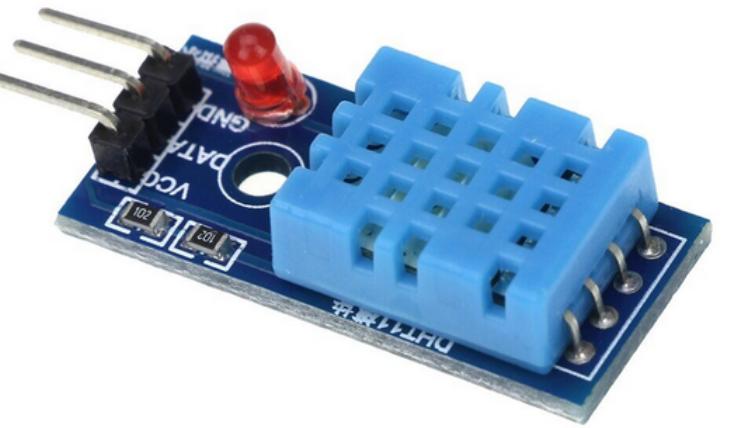
Los Sensores

¿Cómo lo medimos?



Despensa

Sensor Ultrasónico HC-SR04



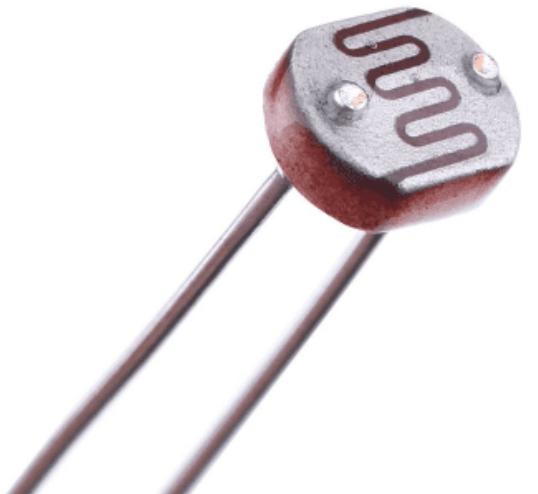
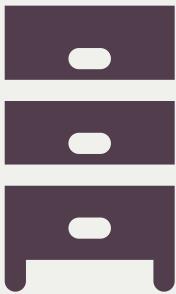
Cocina

SensorDHT11



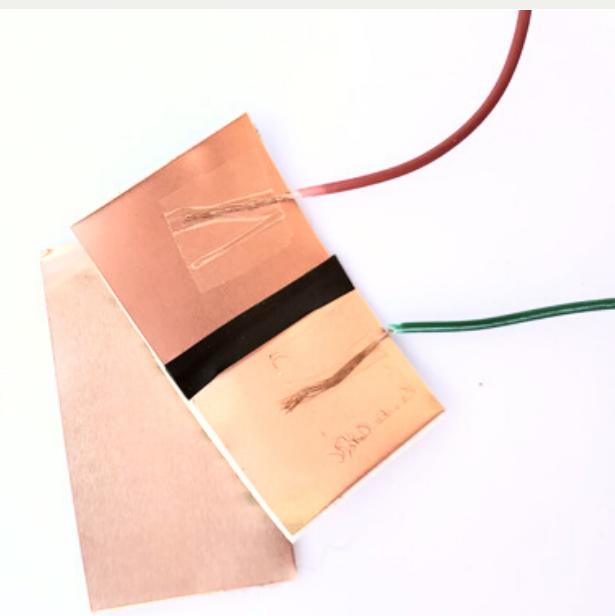
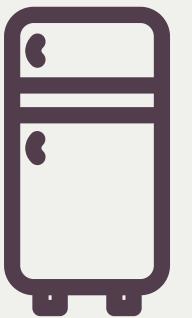
Cajón

Sensor de Contacto



Refrigerador

Sensor de Contacto

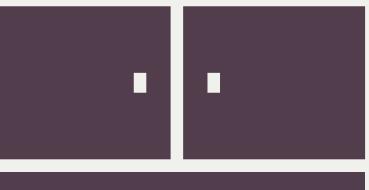


¿Cómo lo medimos?

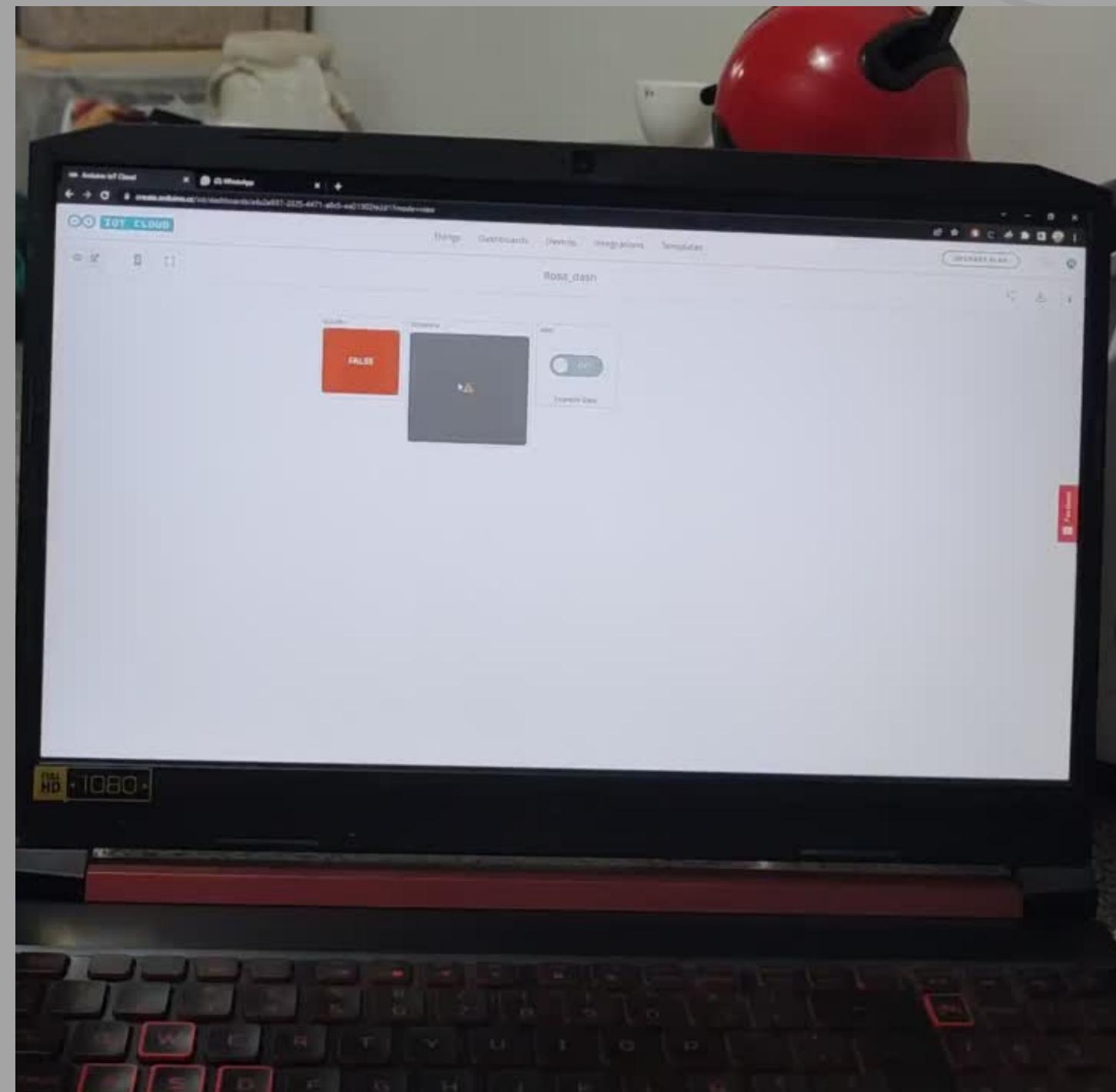


Despensa

Sensor Ultrasónico HC-SR04

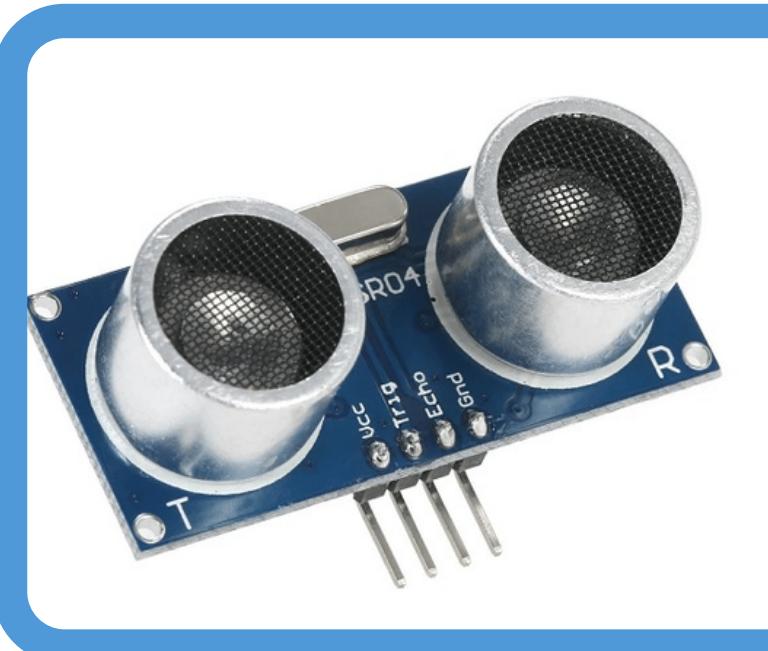


```
ArduinoCloud.update();
long t; //tiempo que demora en llegar el eco
long d; //distancia en centímetros
digitalWrite(Trigger, HIGH);
delayMicroseconds(10); //Enviamos un pulso de 10us
digitalWrite(Trigger, LOW);
t = pulseIn(Echo, HIGH); //obtenemos el ancho del pulso
d = t/59; //escalamos el tiempo a una distancia en cm
//s_movimiento = d;
if (d > param_dist) // Para guardar solo los valores cuando la puerta se abra
{
    estado = true;
}
else{
    Serial.println("Cerrado");
    estado = false;
}
```



Los Sensores

¿Cómo lo medimos?



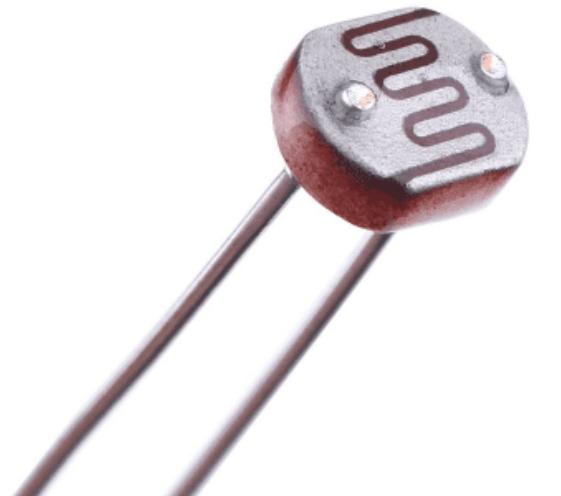
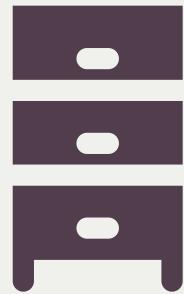
Despensa

Sensor Ultrasónico HC-SR04



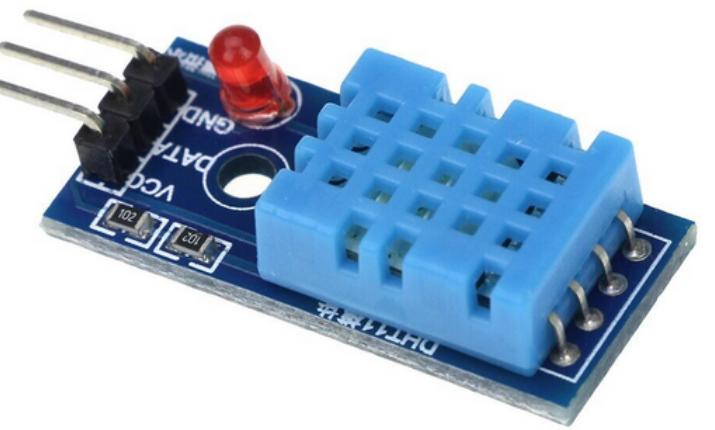
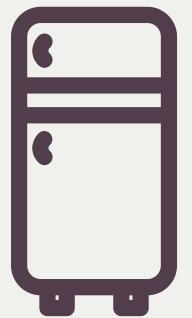
Cajón

Sensor de Contacto



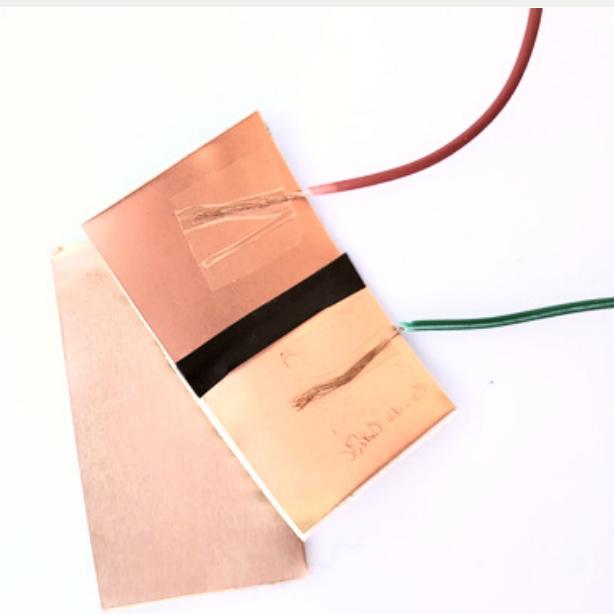
Refrigerador

Sensor de Contacto



Cocina

SensorDHT11



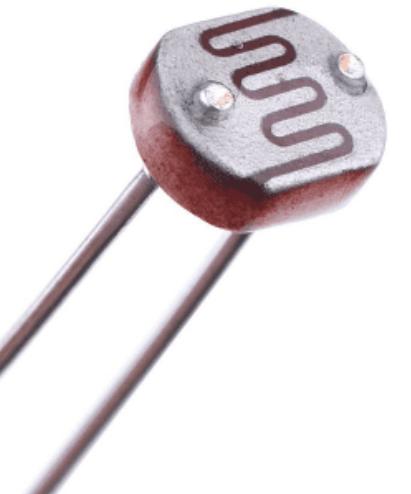
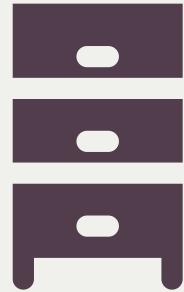
Los Sensores

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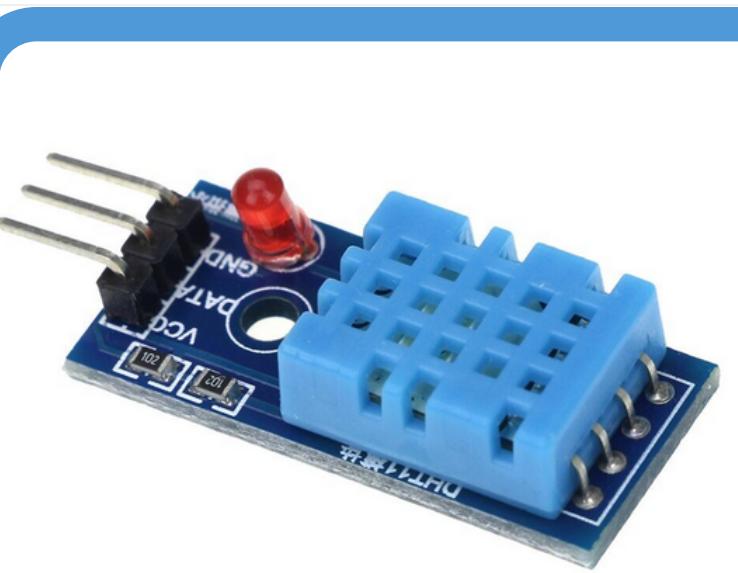
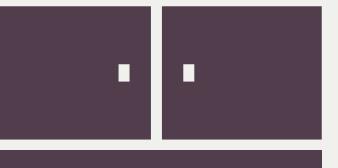
Cajón

LDR



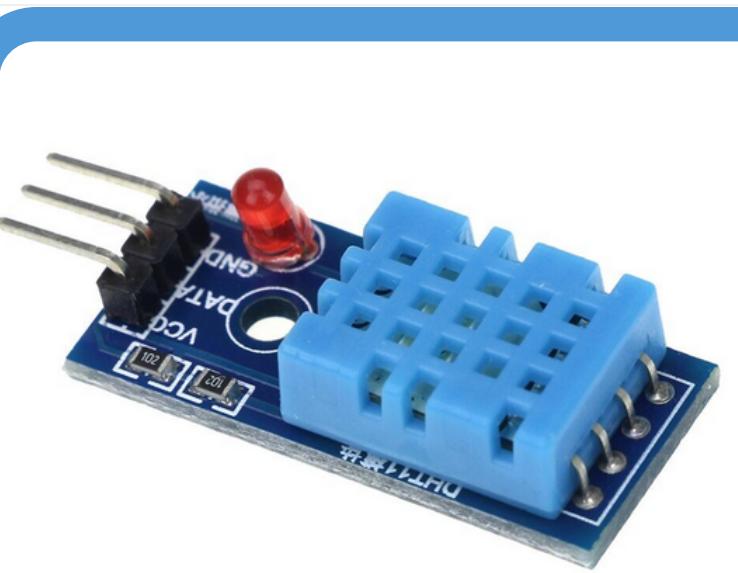
Despensa

Sensor Ultrasónico HC-SR04



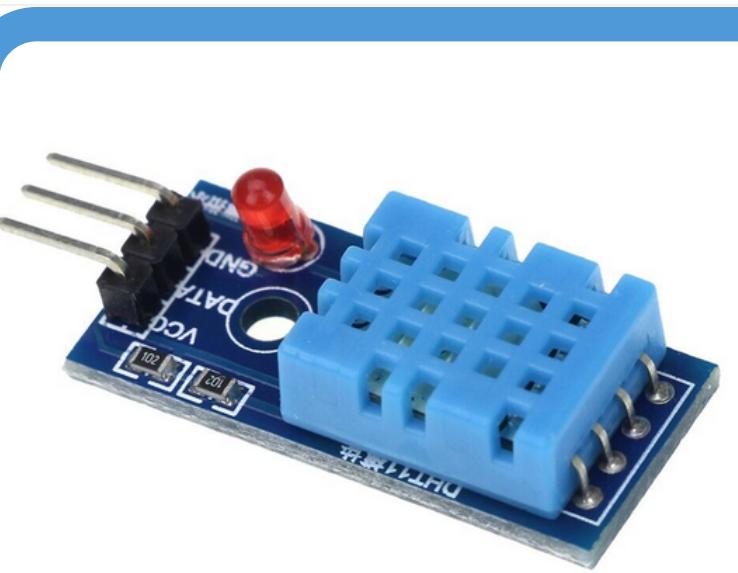
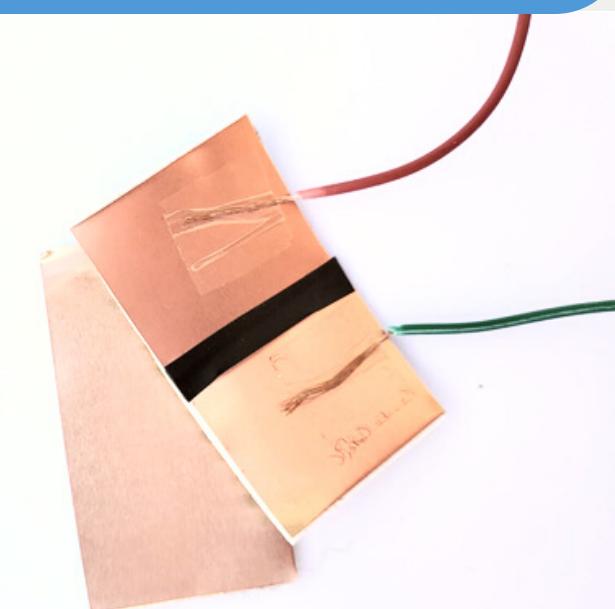
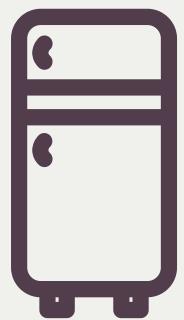
Cocina

SensorDHT11

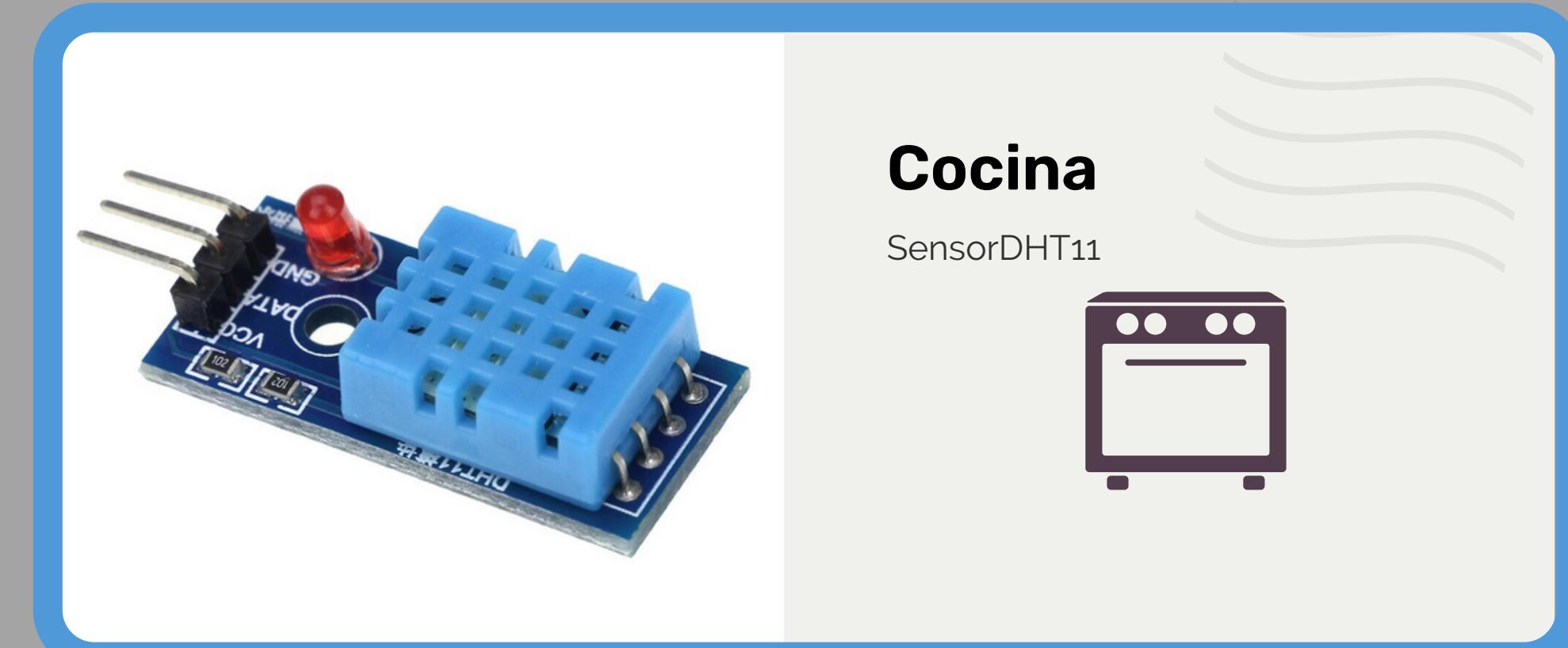
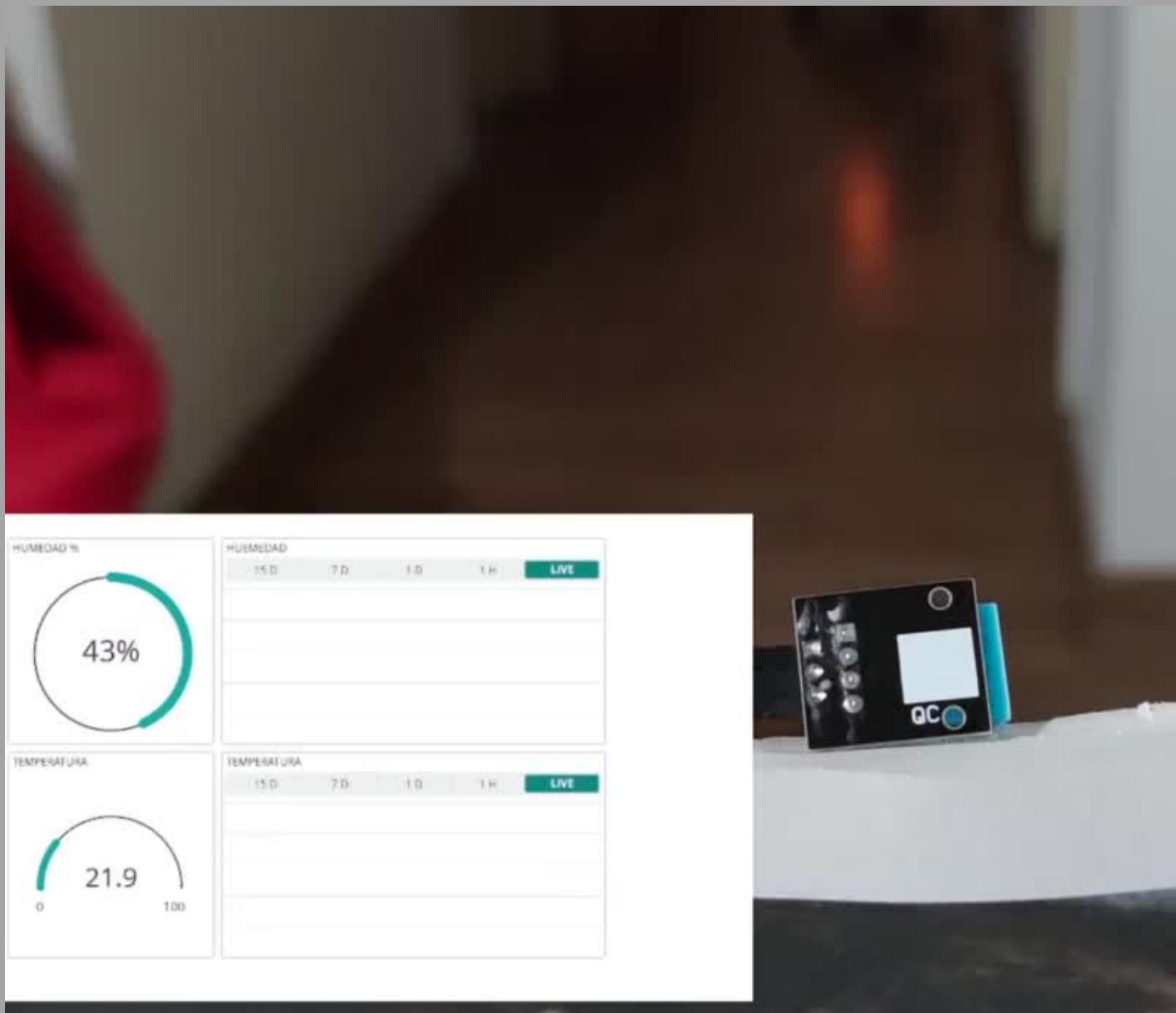


Refrigerador

Sensor de Contacto



¿Cómo lo medimos?



Cocina

SensorDHT11



```
humedad = dht.readHumidity();
temperatura = dht.readTemperature();
temp = temperatura;
// Check if any reads failed and exit early (to try again)
if (isnan(humedad) || isnan(temp)) {
    Serial.println(F("Failed to read from DHT sensor!"));
    return;
}
```

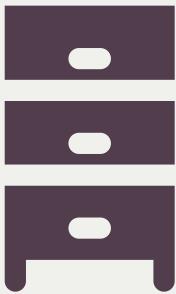
Los Sensores

¿Cómo lo medimos?



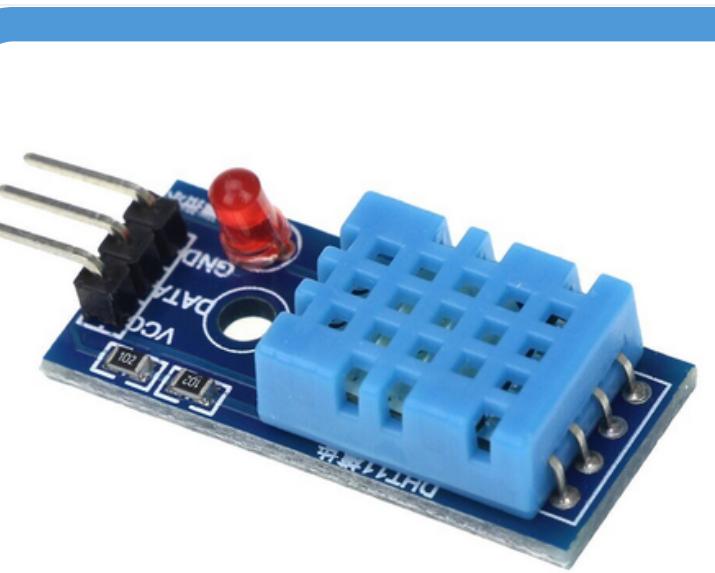
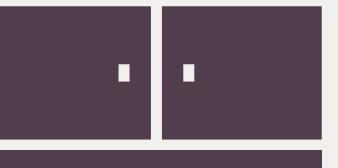
Cajón

LDR



Despensa

Sensor Ultrasónico HC-SR04



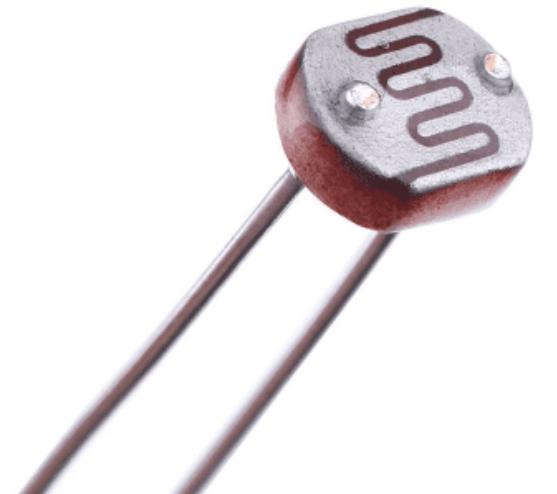
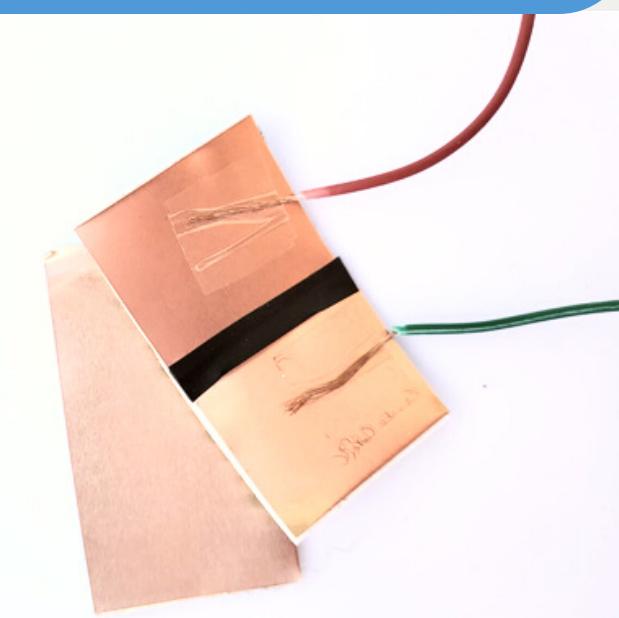
Cocina

SensorDHT11



Refrigerador

Sensor de Contacto



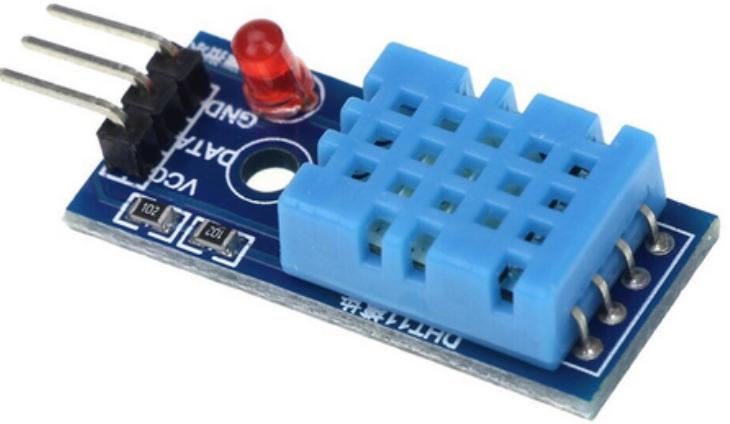
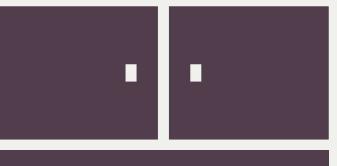
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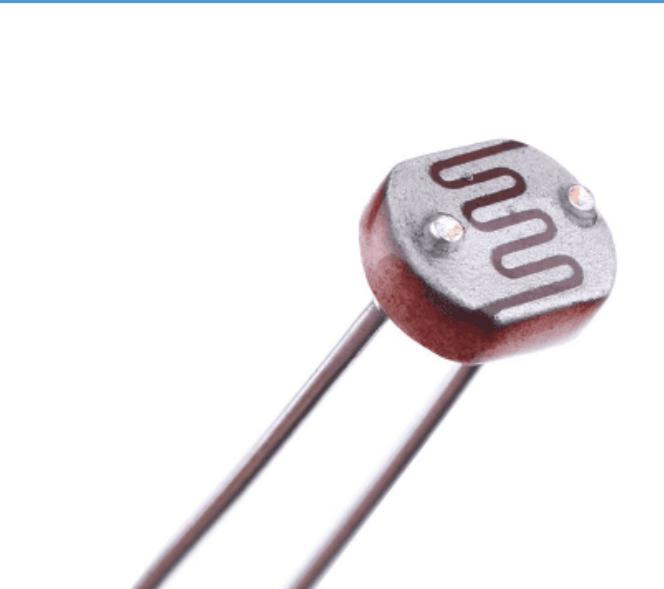
Cocina

SensorDHT11



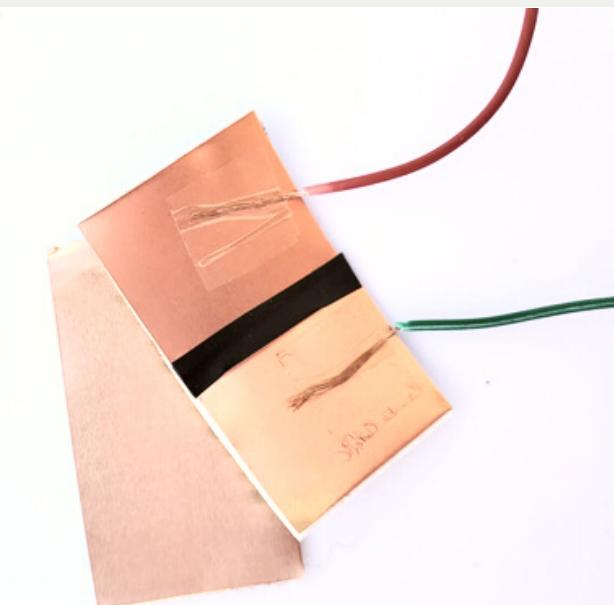
Cajón

LDR



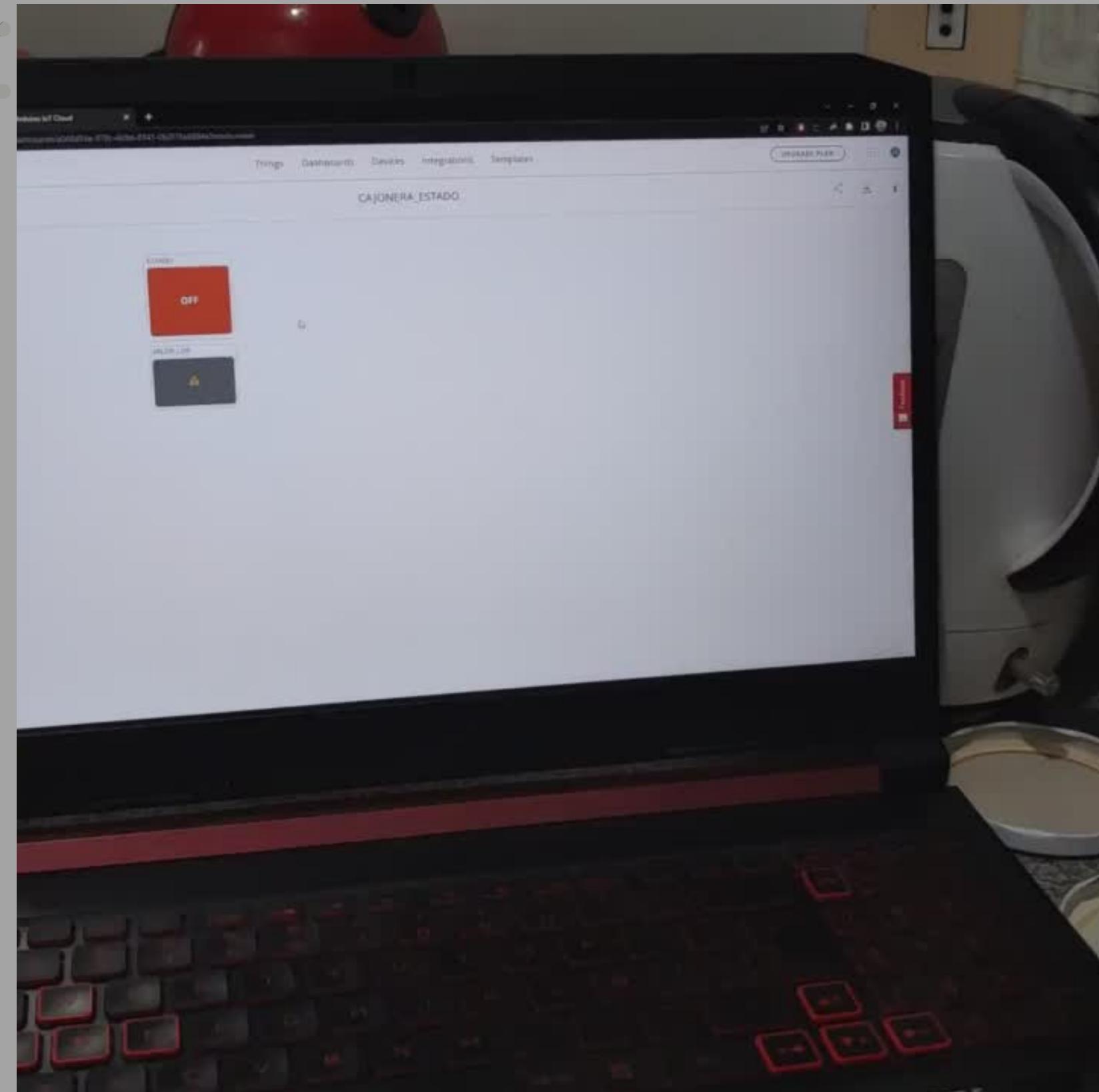
Refrigerador

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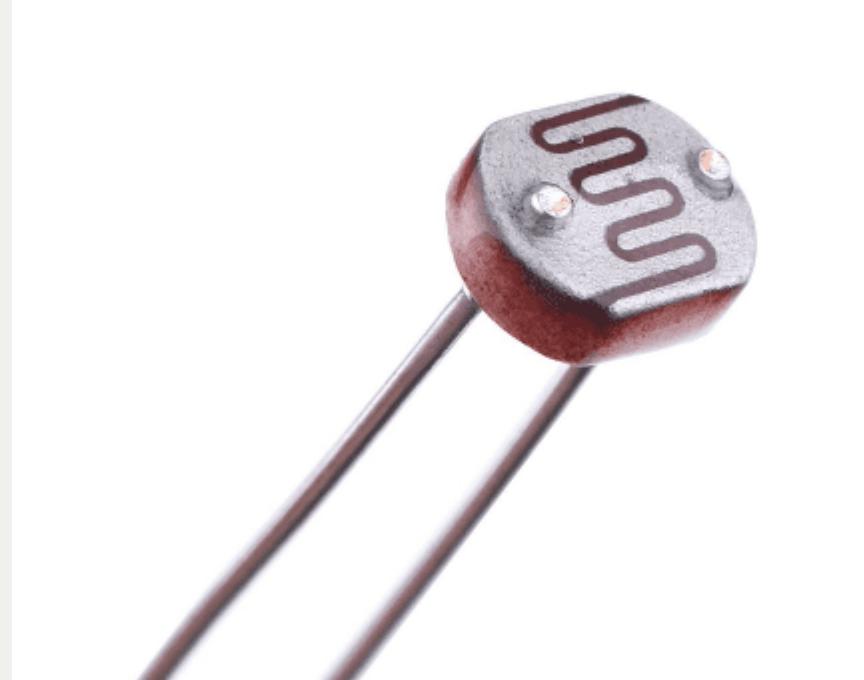
¿Cómo lo medimos?

```
ldr = analogRead(A0);
Serial.println(ldr);
if (ldr > 900)
{
estado = true;
Serial.println("Abierto");
digitalWrite(4,LOW);
}
else {
estado = false;
Serial.println("Cerrado");
```



Cajón

LDR



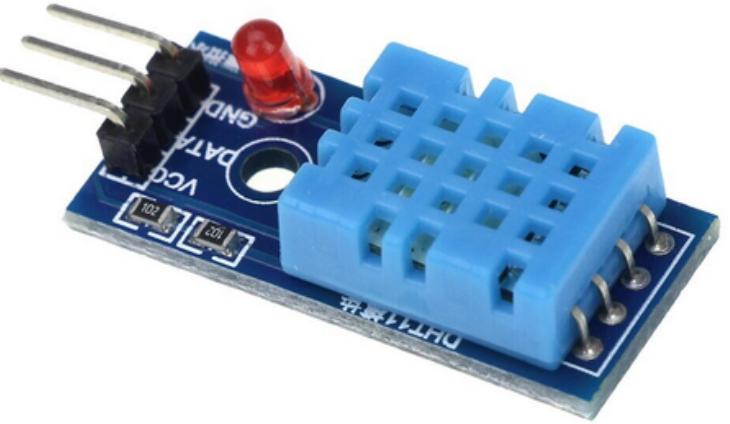
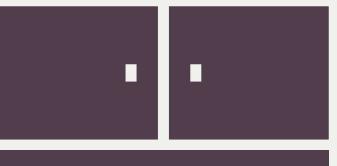
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Despensa

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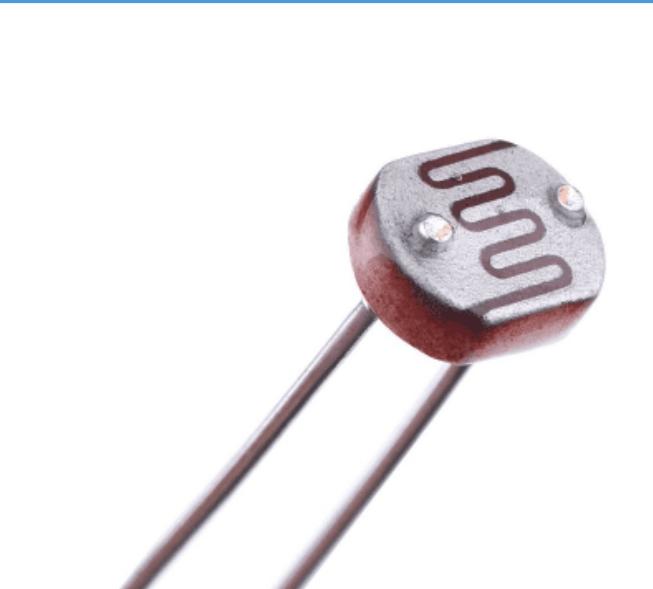
Cocina

SensorDHT11



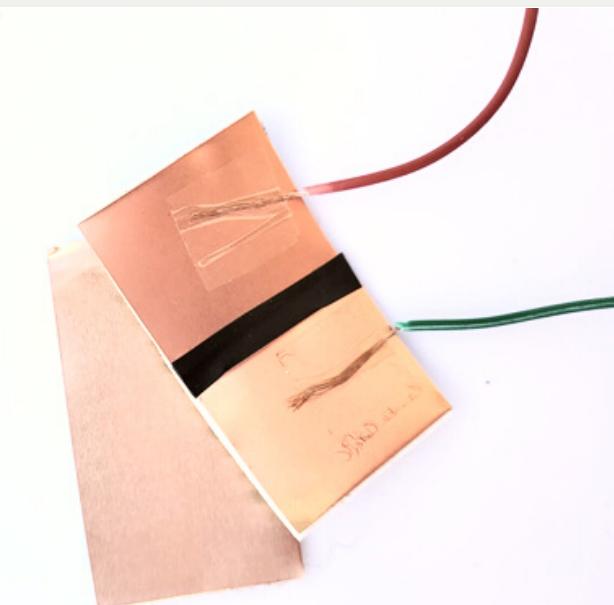
Cajón

LDR



Refrigerador

Sensor de Contacto



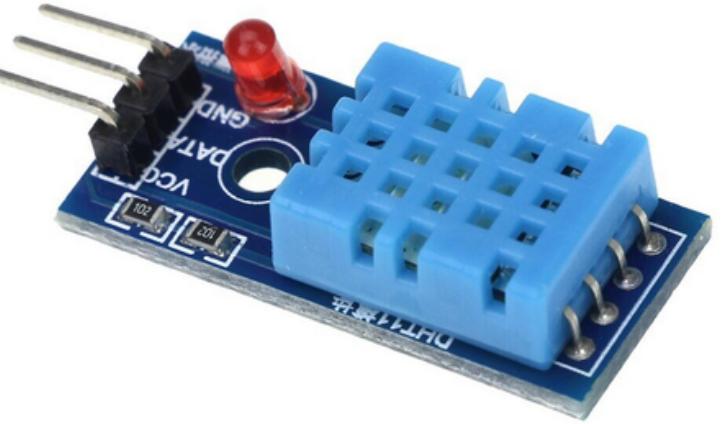
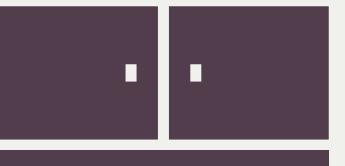
Los Sensores

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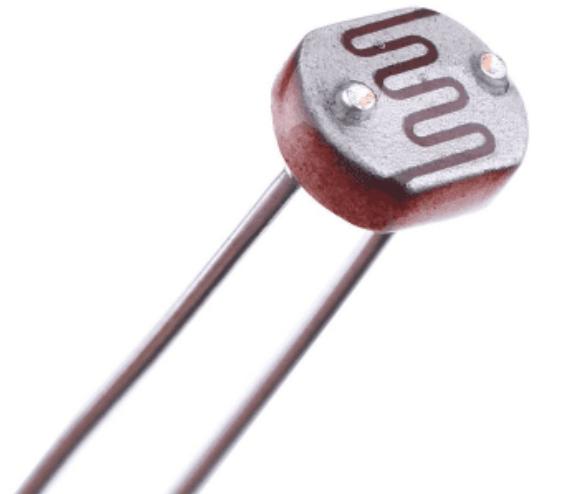
Cocina

Sensor DHT11



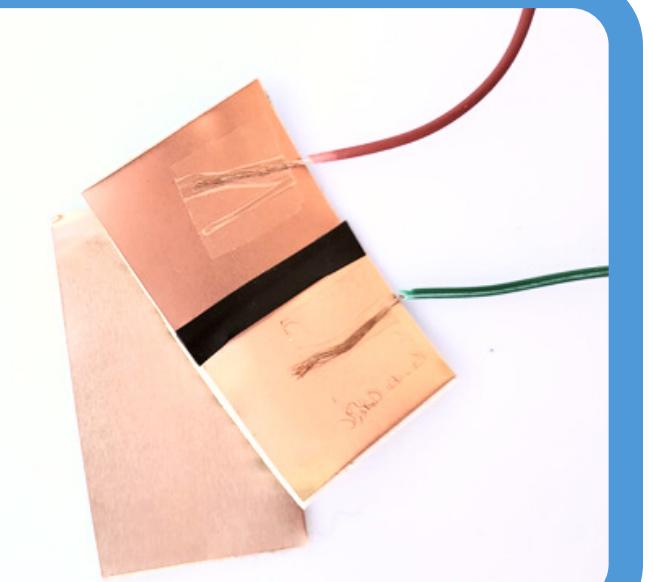
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LDR

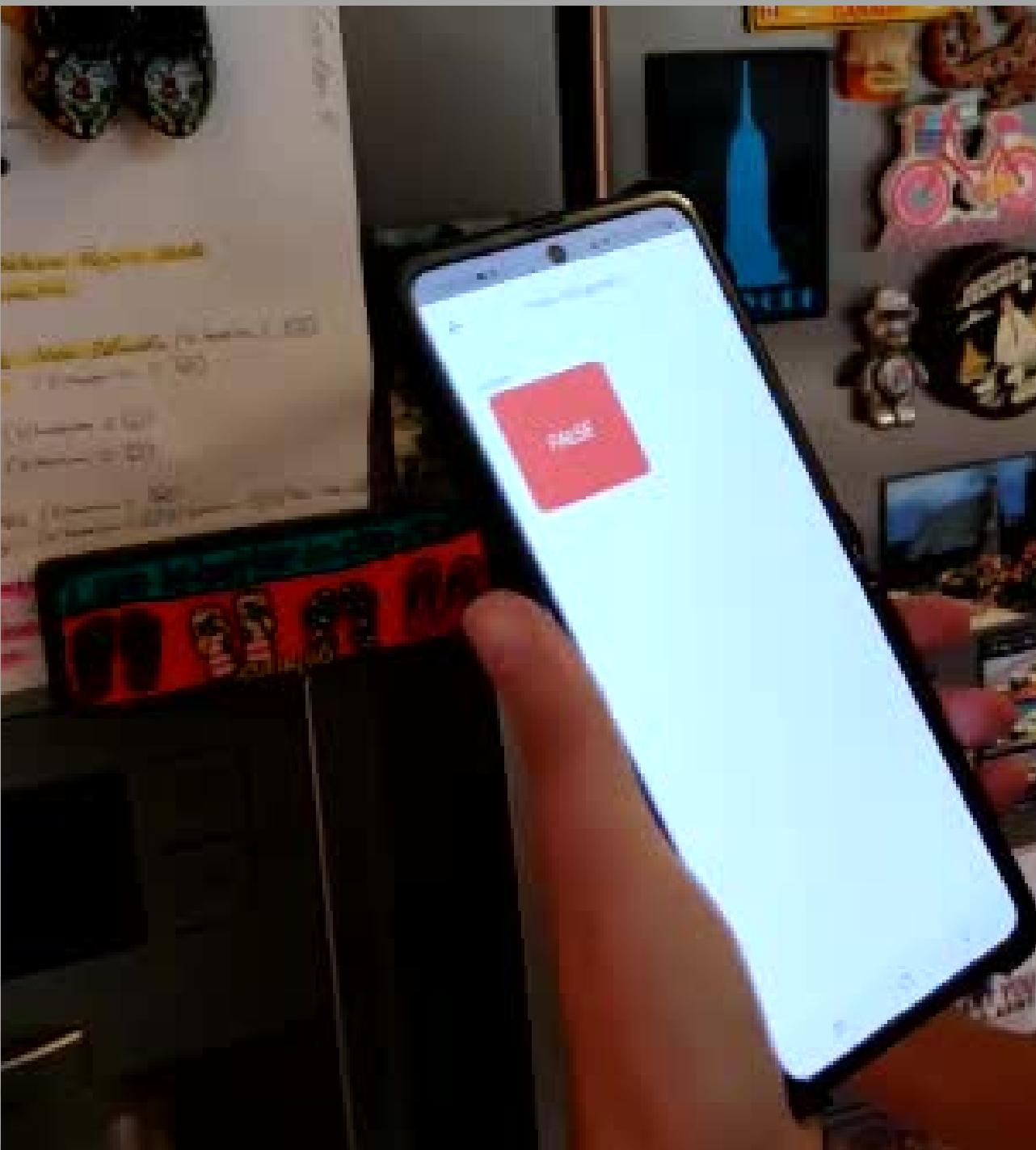


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Sensor de Contacto



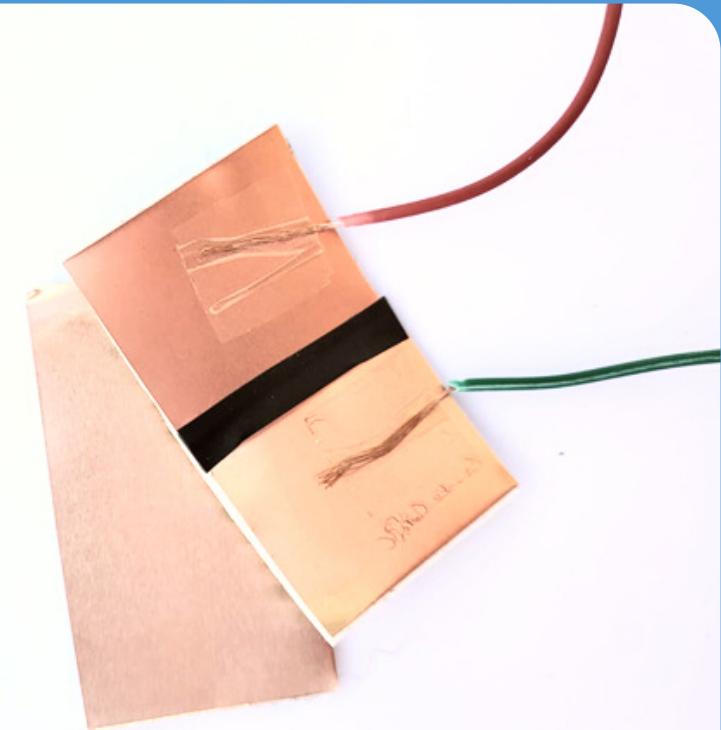
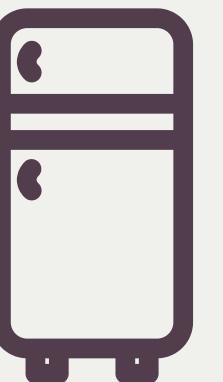
¿Cómo lo medimos?



```
void loop() {  
    ArduinoCloud.update();  
    ArduinoCloud.update();  
    estado_refri = digitalRead(0);  
}
```

Refrigerador

Sensor de Contacto



Datos Recopilados

Apertura refrigerador

09:38PM
10:57PM
10:58PM
10:42AM
10:43AM
10:45AM
11:07AM
12:16PM

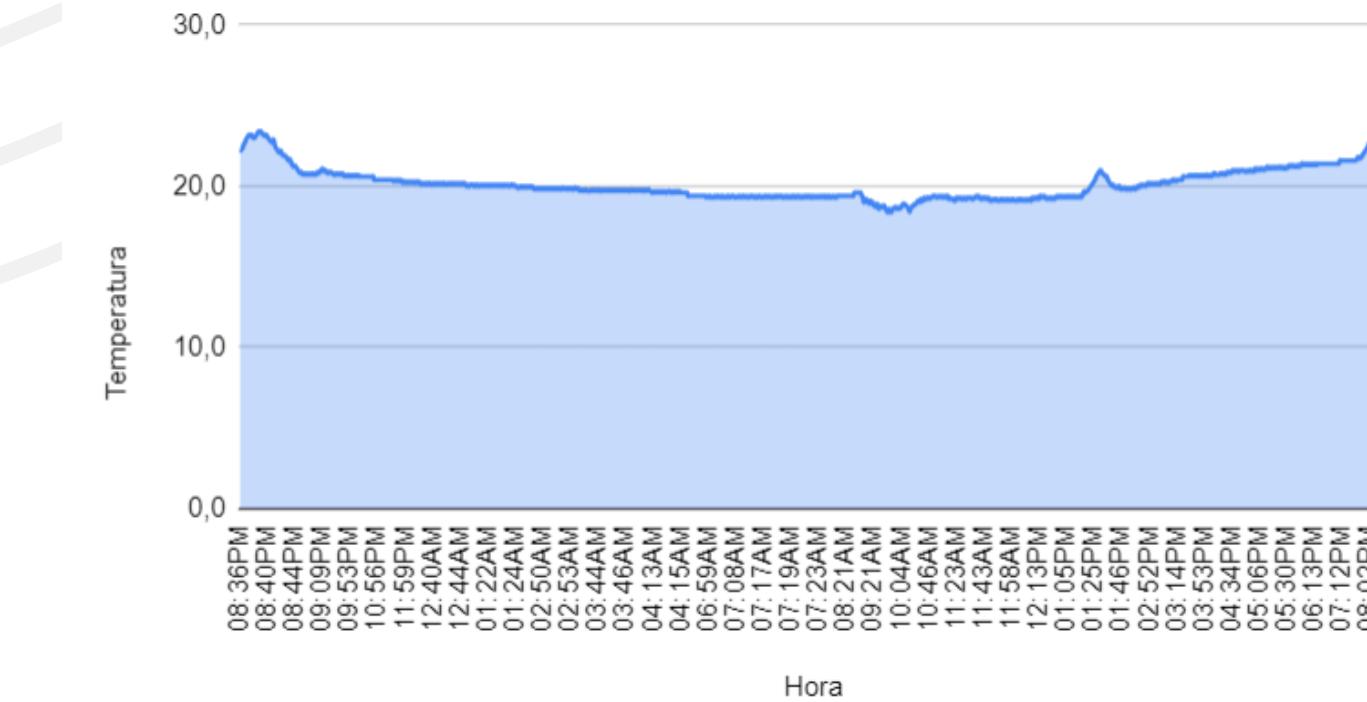
Apertura despensa

10:12PM
09:09AM
10:49AM
11:37AM
07:53PM
08:29PM
08:30PM
08:31PM

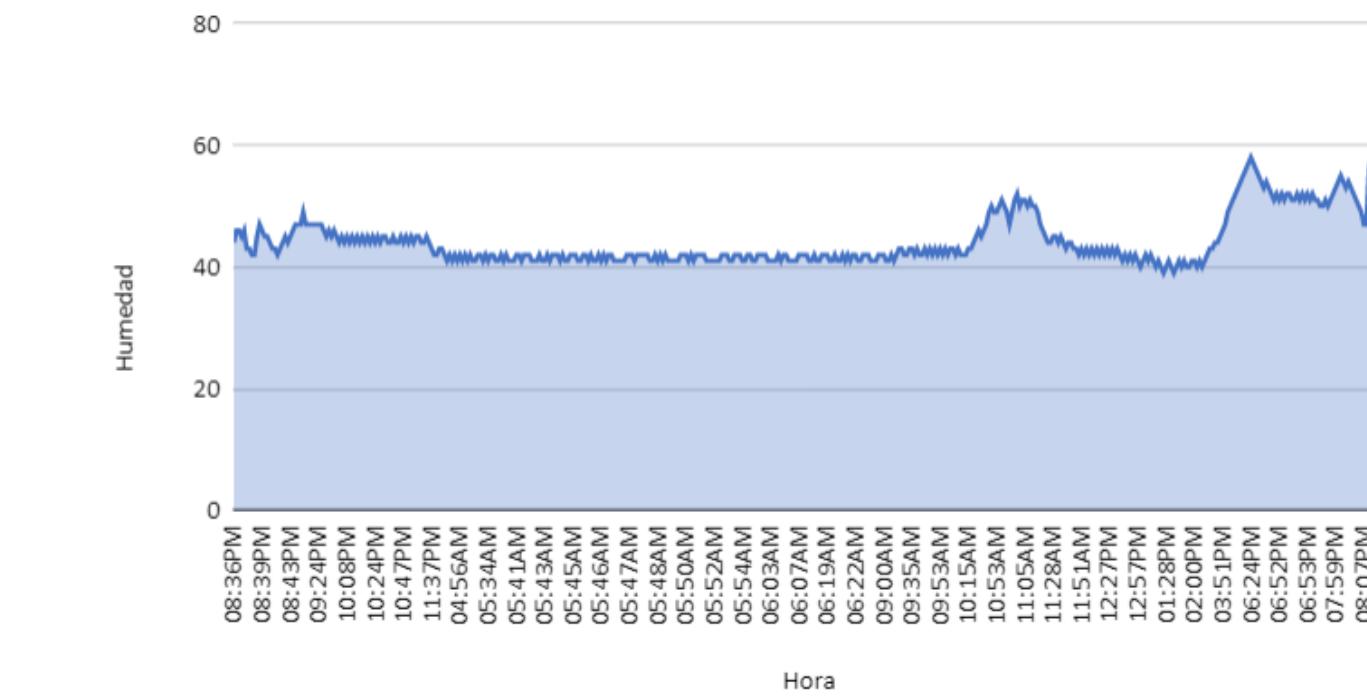
Apertura cajon

10:11PM
10:48AM
10:51AM
11:05AM
11:31AM
01:00PM
01:19PM
02:30PM
06:24PM
07:47PM
07:53PM
08:13PM

Variación Temperatura

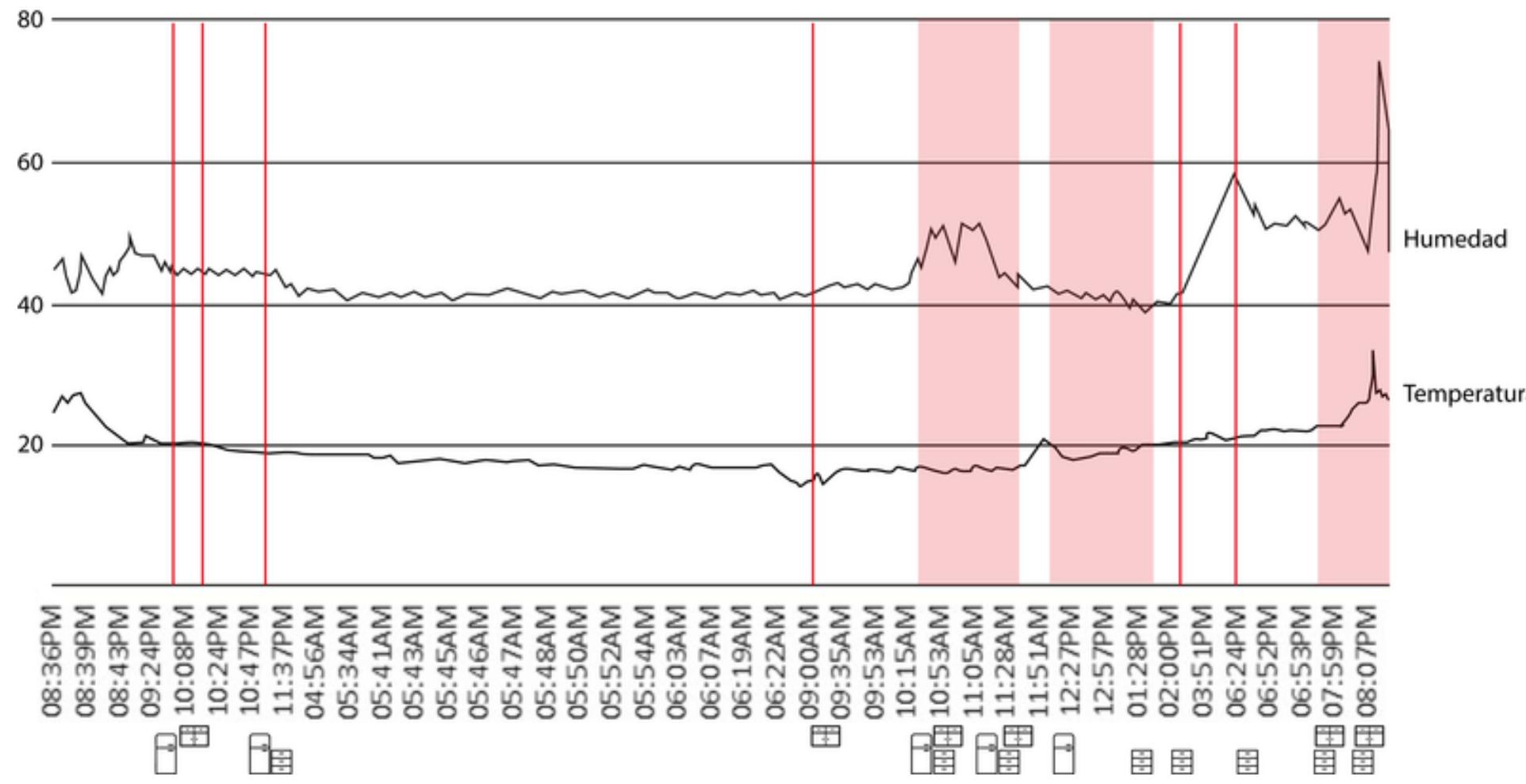


Variación Humedad



Datos en conjunto

Análisis de Datos



Horario	Variables	Suposición
21:38	Refrigerador	Hidratación
22:11 - 22:12	Despensa - cajón	Snack
22:57 - 22:58	Refrigerador	Hidratación
9:09	Despensa	Medicamentos
10:42 - 11:07	Refrigerador, despensa, cajón, humedad	Desayuno
12:16 - 13:46	Refrigerador, cajón, temperatura	Preparación almuerzo
14:30	Cajón	Guardar cosas
18:24	Cajón, temperatura humedad	Once
19:47 - 20:31	Despensa, cajón, temperatura, humedad	Preparación cena

Conclusiones

- Hay que tener más días de estudio, ya que la Sra. Rosita podría ser muy consciente del estudio alterando su comportamiento habitual.
- La combinación de las variables escogidas nos permitió un análisis acertado de las comidas durante el día.
- En base a las 24 hrs analizadas, podemos concluir que la Sra. Rosa se alimenta adecuadamente.

