

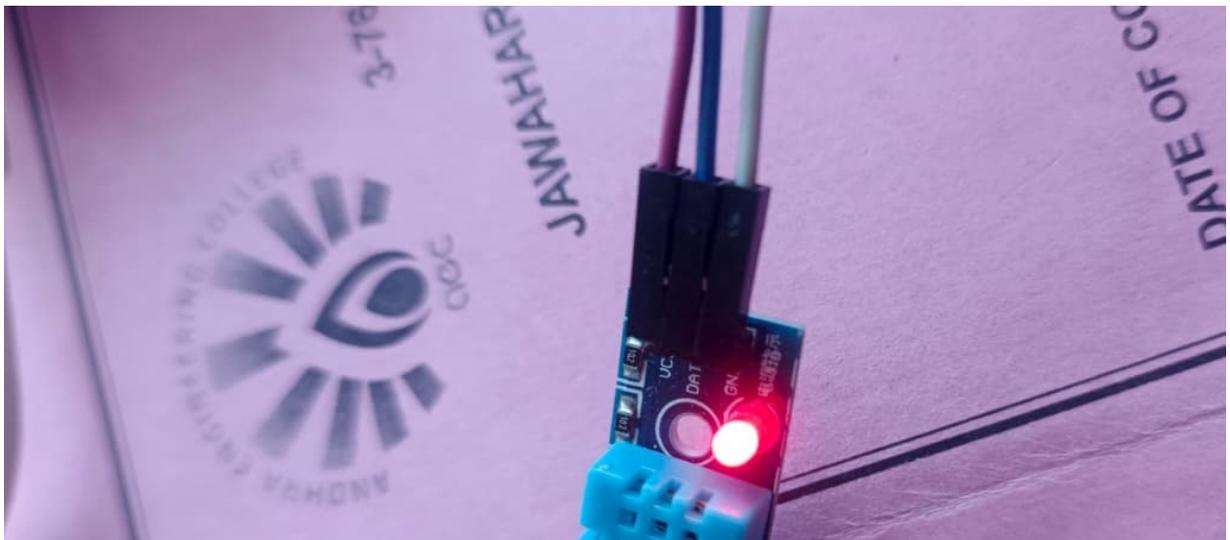
Lab: EDGE COMPUTING LAB (23A39605)

College: **Andhra**
Engineering College

2. Data Acquisition from Sensors or Reading data from temperature, motion, and environmental sensors

PI to Sensor and Giving 5V Power from Powerbackup or else





Connect Via Jupiter Notebook Over Network


```
print("Reading error:", error)
```

```
time.sleep(2)
```

Output:

Temp=27.1°C Humidity=83%

Temp=27.1°C Humidity=83%

Temp=27.2°C Humidity=84%

Reading error: DHT sensor not found, check wiring

Reading error: DHT sensor not found, check wiring

Temp=27.4°C Humidity=87%

GPIO Change Example

If you change GPIO pin:

GPIO Change code

```
GPIO17 board.D17
```

```
GPIO18 board.D18
```

Important Hardware Notes

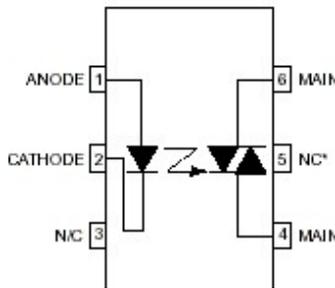
- Use **3.3V**, not 5V
- Use **10kΩ pull-up resistor** if your DHT11 module doesn't have one
- DHT11 is **slow** → 2 seconds delay is correct

Final Connections: DC to AC – Actionable Events

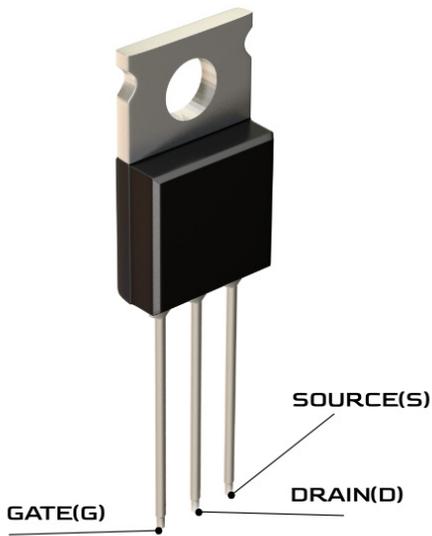
Used to **isolate low-voltage control from high-voltage power**

Examples:

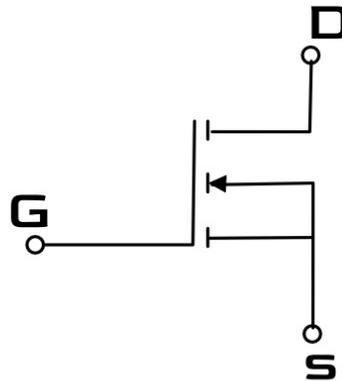
- PC817
- MOC3021 (TRIAC optocoupler)



- MOC3041 (Zero-cross optocoupler)
- 4N35
- TLP250 (MOSFET/IGBT gate drive)



MOSFET



SYMBOL OF MOSFET

- HCPL-3120

Check Bellow AC to DC Circuit Abstraction

Final Connections: DC to AC – Actionable Events PCB Flow

