

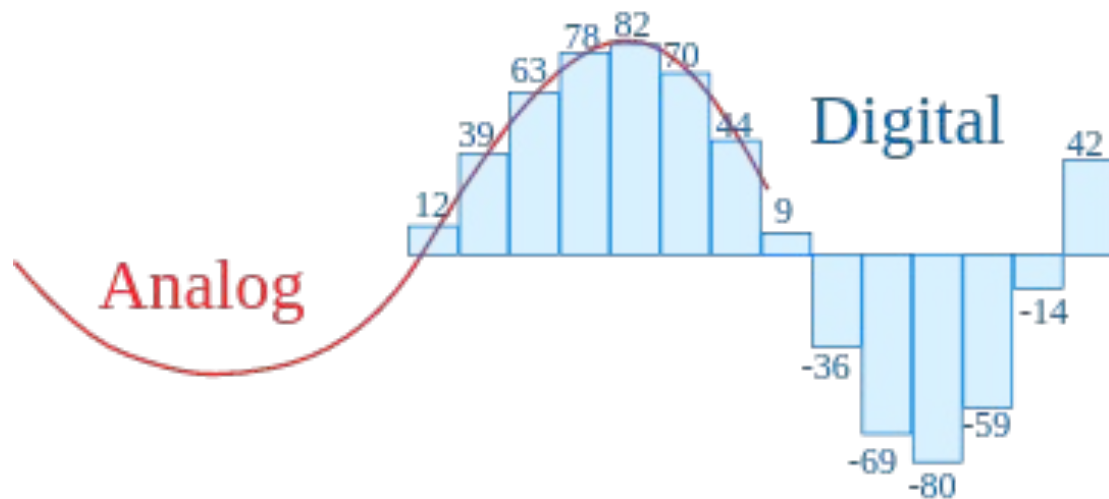


Básico Programação II

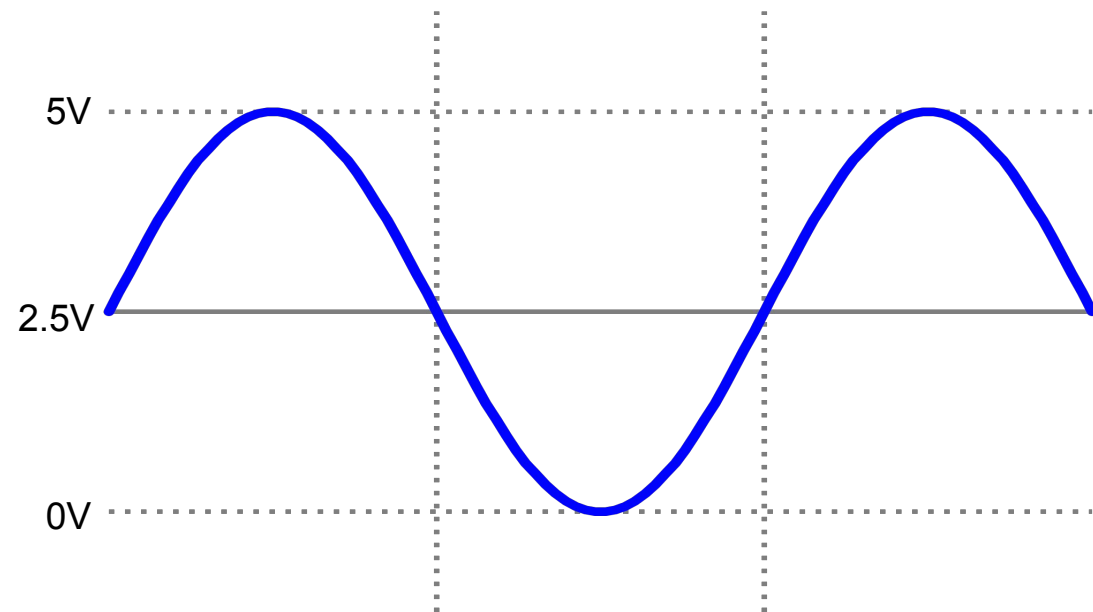
Leitura Analógica

Hardware Livre
USP

Analógico e Digital

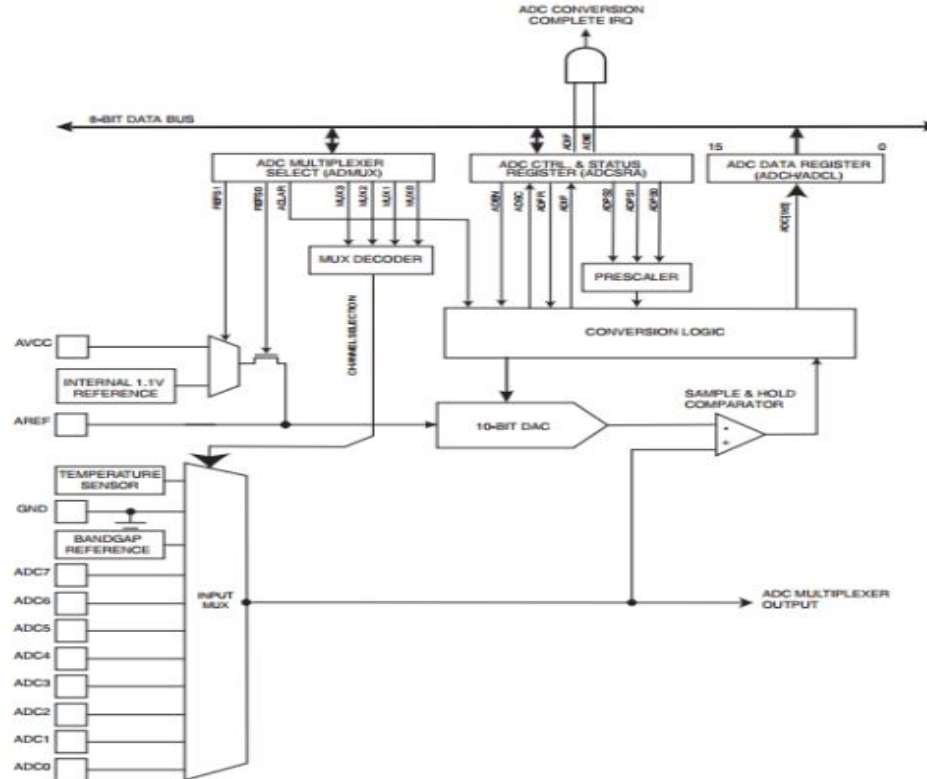


A leitura analógica

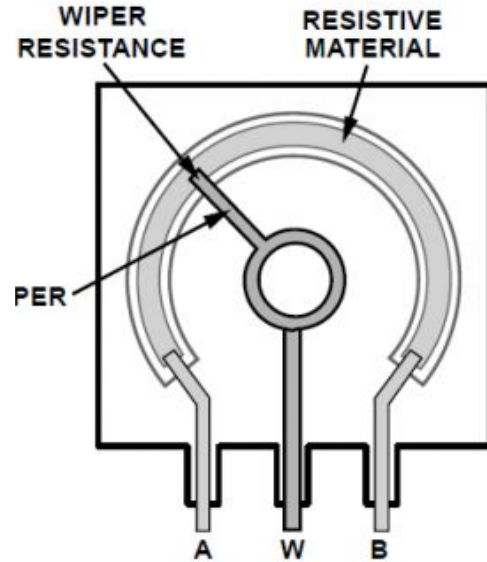


$$\text{Rep}_{\text{Digital}} = \frac{V_{\text{Lida}} * 1023}{5}$$

O circuito interno do ADC

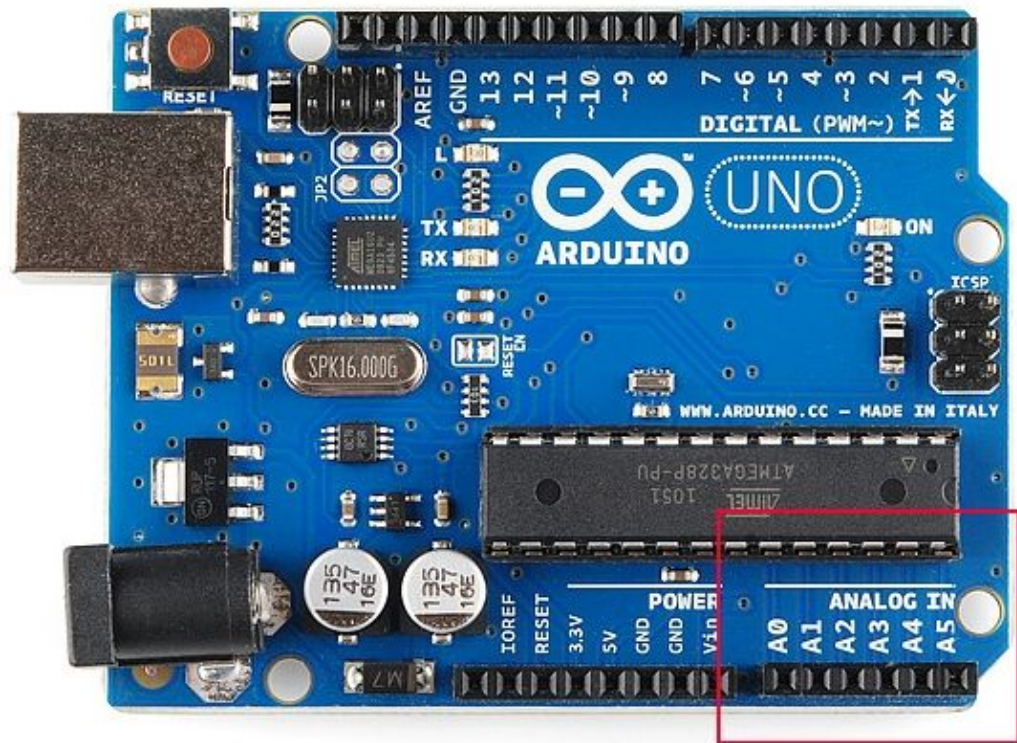


Potenciômetro



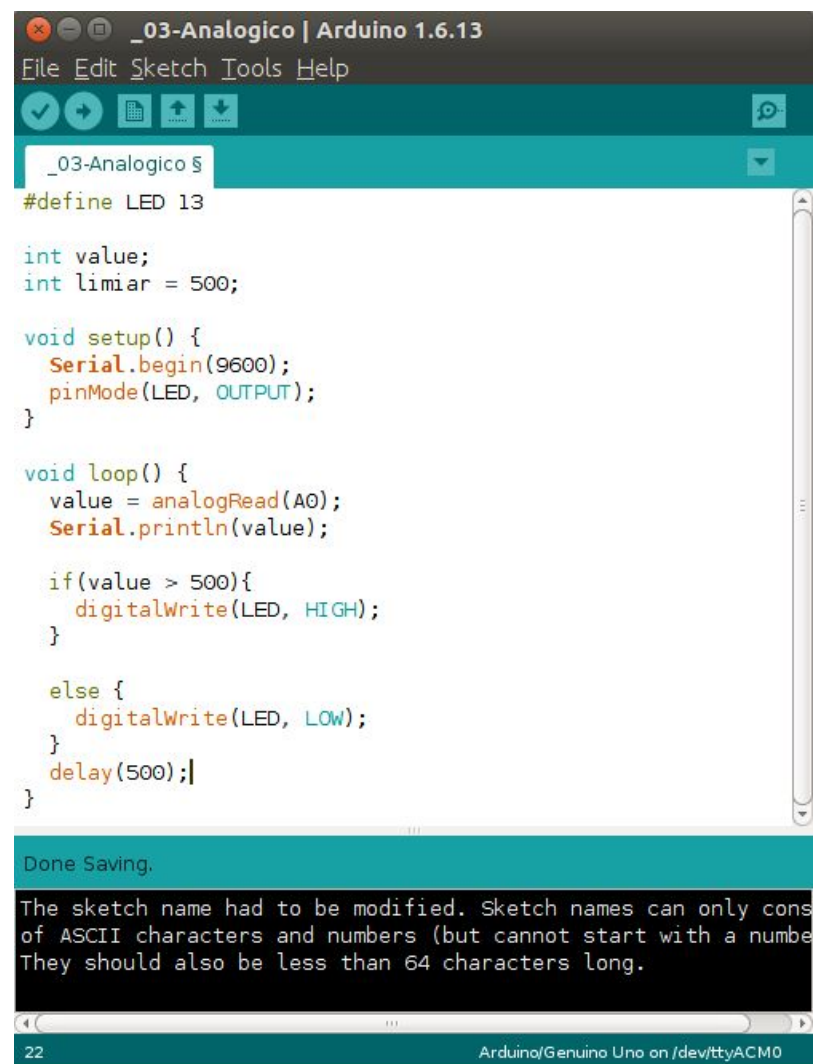
Lendo um potenciômetro

analogRead(A0)



O código

- 1- Acessar:
- 2- Clicar em “File”;
- 3- Selecionar “Open”;
- 4- Enviar o código para a placa
- 5- Abrir o Monitor Serial;



The screenshot shows the Arduino IDE interface. The title bar reads "_03-Analogico | Arduino 1.6.13". The menu bar includes "File", "Edit", "Sketch", "Tools", and "Help". The toolbar contains icons for saving, running, and other functions. The sketch name in the top right is "_03-Analogico 5". The code editor displays the following code:

```
#define LED 13

int value;
int limiar = 500;

void setup() {
  Serial.begin(9600);
  pinMode(LED, OUTPUT);
}

void loop() {
  value = analogRead(A0);
  Serial.println(value);

  if(value > 500){
    digitalWrite(LED, HIGH);
  }

  else {
    digitalWrite(LED, LOW);
  }
  delay(500);
}
```

Below the code editor, a status bar shows "Done Saving." and a message box with the text: "The sketch name had to be modified. Sketch names can only consist of ASCII characters and numbers (but cannot start with a number). They should also be less than 64 characters long." The bottom status bar indicates "22" and "Arduino/Genuino Uno on /dev/ttyACM0".

Desafio

Fazer um voltímetro para medir tensão de 0 a 5.0 V

CHALLENGE ACCEPTED

