



Conhecendo a IDE do Arduino

Capacitação para Alunos do
Ensino Médio
PET ELÉTRICA UFPB



Download da IDE

Instruções

01

A IDE e suas funções

Manipulação e Configurações

02

Projetos

Exemplos e Configurações

03

IDE

Integrated Development Environment ou Ambiente

Integral de Desenvolvimento, é

um software criado com a finalidade de facilitar a nossa vida na hora de construir e executar um código. Nesse ambiente, estão presentes as funções necessárias para o desenvolvimento do programa e alguns recursos que diminuem a ocorrência de erros nas linhas de código.

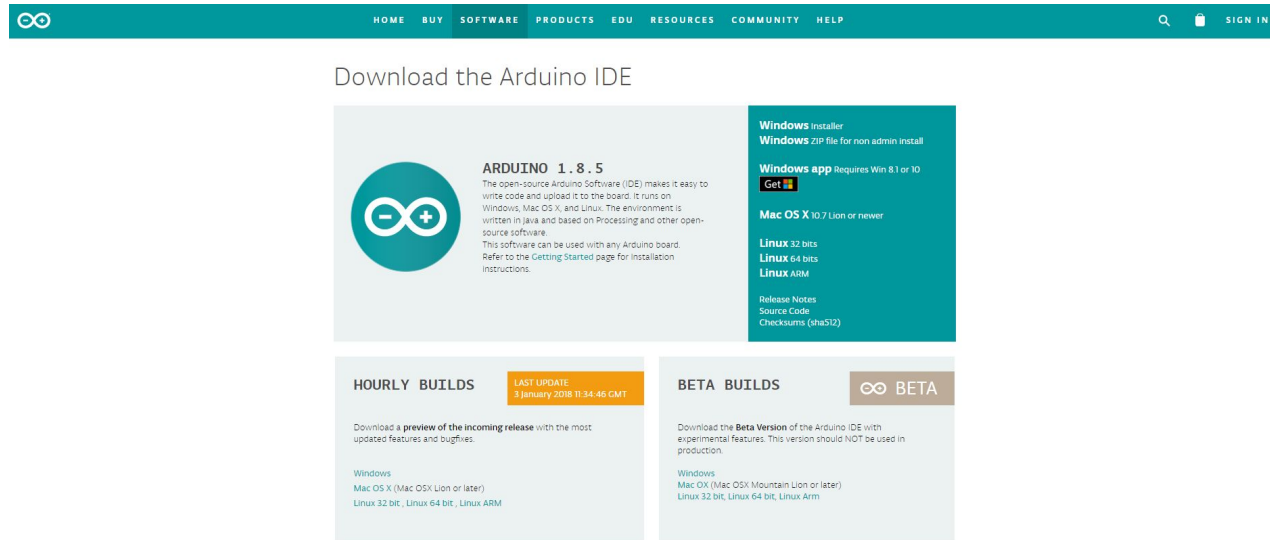


01

Download da IDE



Download IDE Arduino

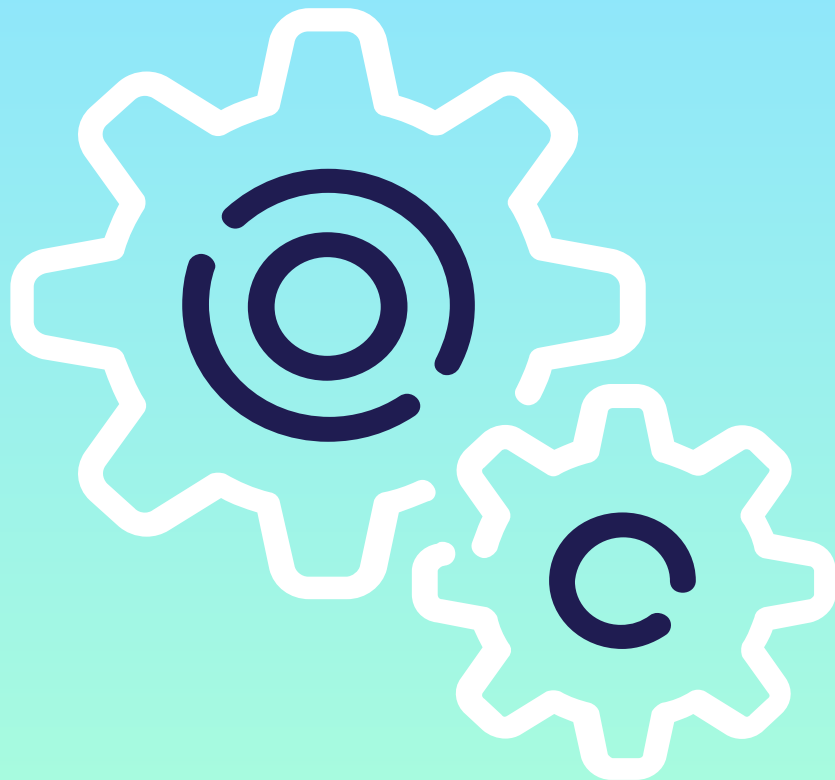


The screenshot shows the Arduino IDE download page. At the top is a navigation bar with links: HOME, BUY, SOFTWARE, PRODUCTS, EDU, RESOURCES, COMMUNITY, HELP. Below the navigation bar is the heading "Download the Arduino IDE". The main content area is divided into two columns. The left column features the Arduino logo and the text "ARDUINO 1.8.5", describing it as open-source software for writing code and uploading it to the board. The right column lists download options: "Windows installer" (a .zip file for non-admin install), "Windows app" (requires Win 8.1 or 10), "Mac OS X 10.7 Lion or newer", "Linux 32 bits", "Linux 64 bits", and "Linux ARM". Below these are links for "Release Notes", "Source Code", and "Checksums (sha512)". At the bottom, there are two sections: "HOURLY BUILDS" and "BETA BUILDS". The "HOURLY BUILDS" section includes a "LAST UPDATE" badge for "3 January 2018 11:54:46 GMT" and a description of the preview release. The "BETA BUILDS" section includes a "BETA" badge and a description of the beta version.

Link: <https://www.arduino.cc/en/Main/Software>

1– Instalação da Plataforma (Clicar em Next)

2– Abrir a IDE

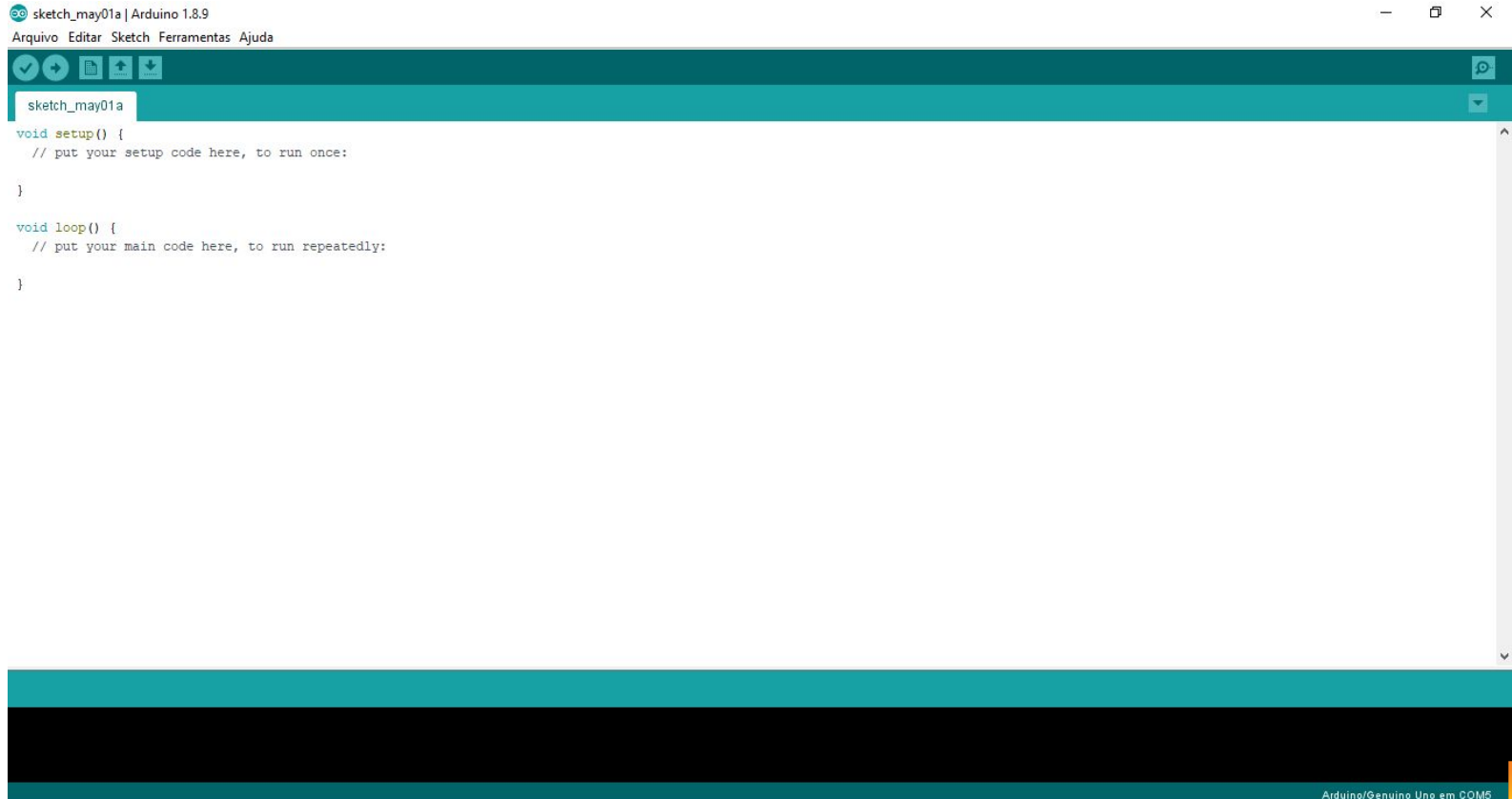


02

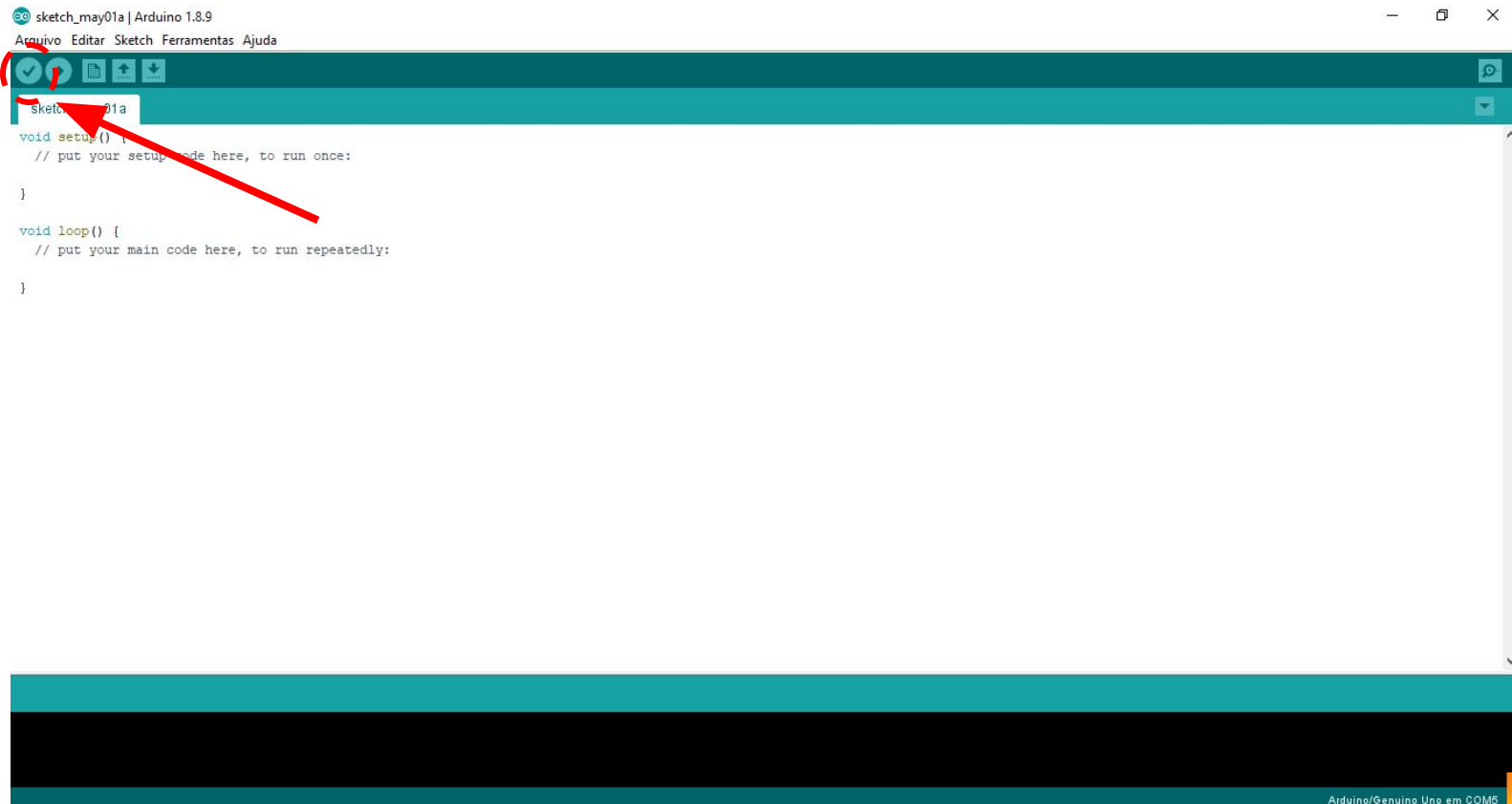
A IDE e suas funções

Entendendo as funções de manipulação e compilação da IDE

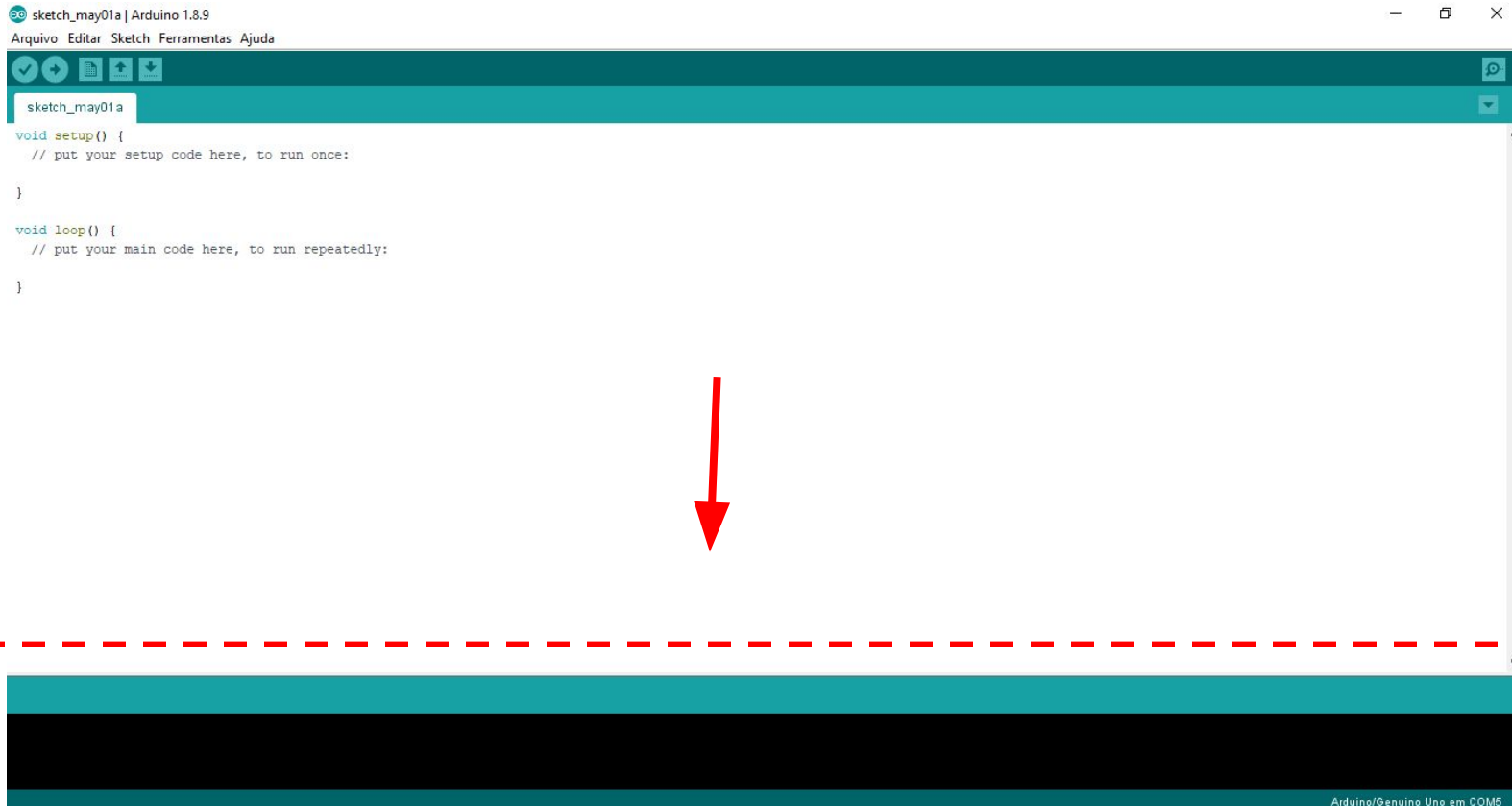
IDE



Validar Código



Informações sobre código executado



sketch_may01a | Arduino 1.8.9

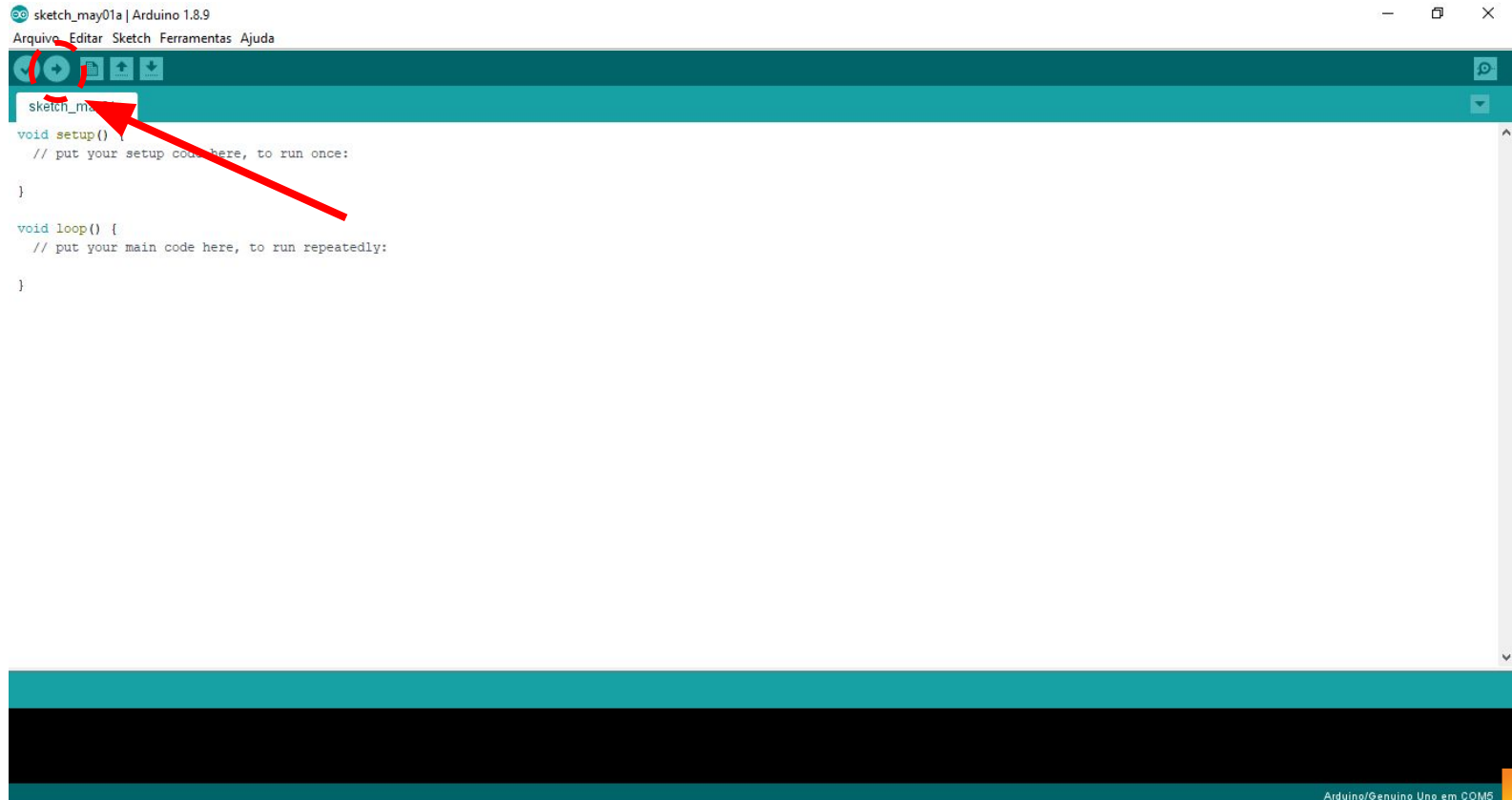
Arquivo Editar Sketch Ferramentas Ajuda

sketch_may01a

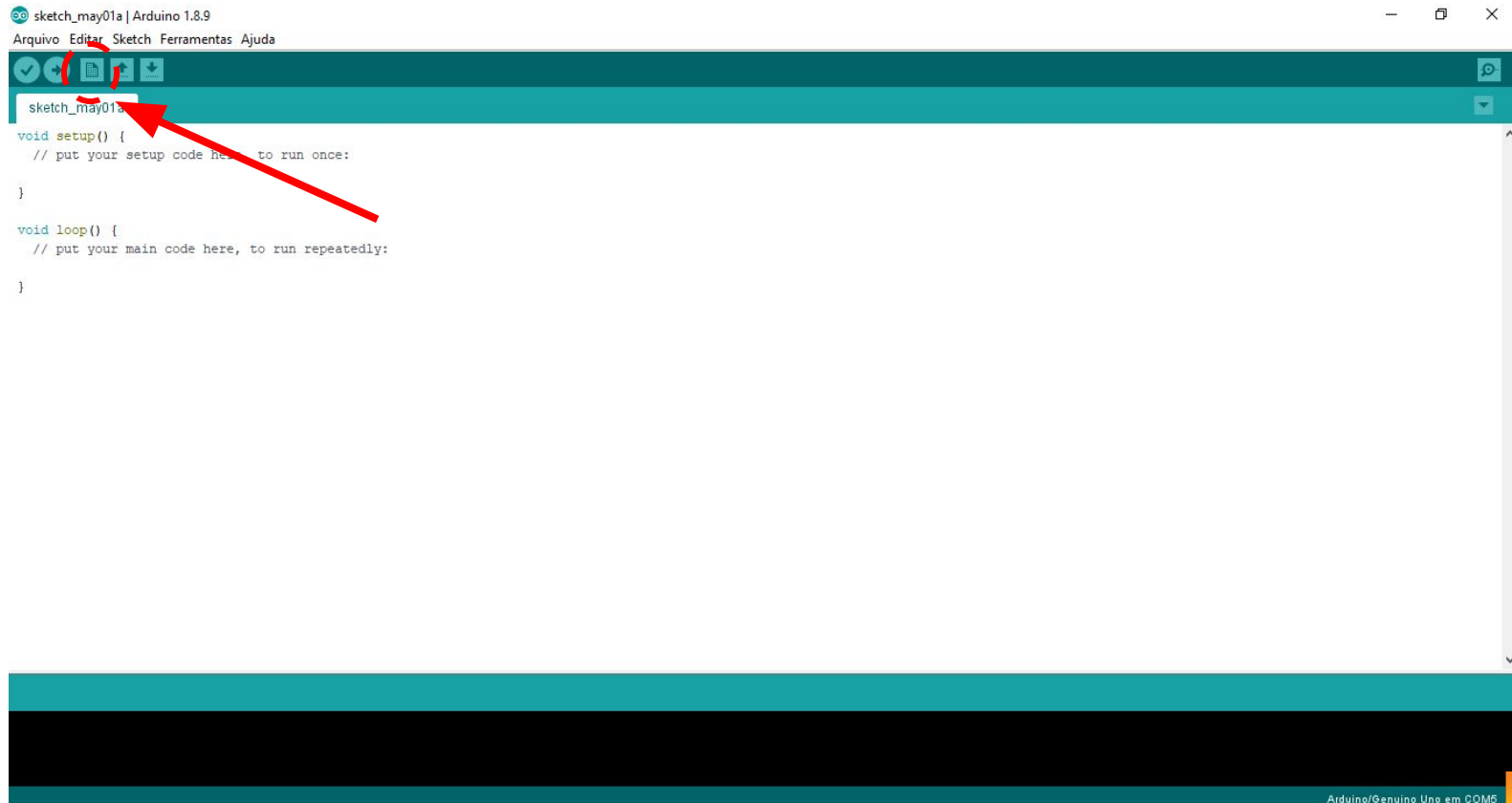
```
void setup() {  
  // put your setup code here, to run once:  
  
}  
  
void loop() {  
  // put your main code here, to run repeatedly:  
  
}
```

Arduíno/Genuíno Uno em COM5

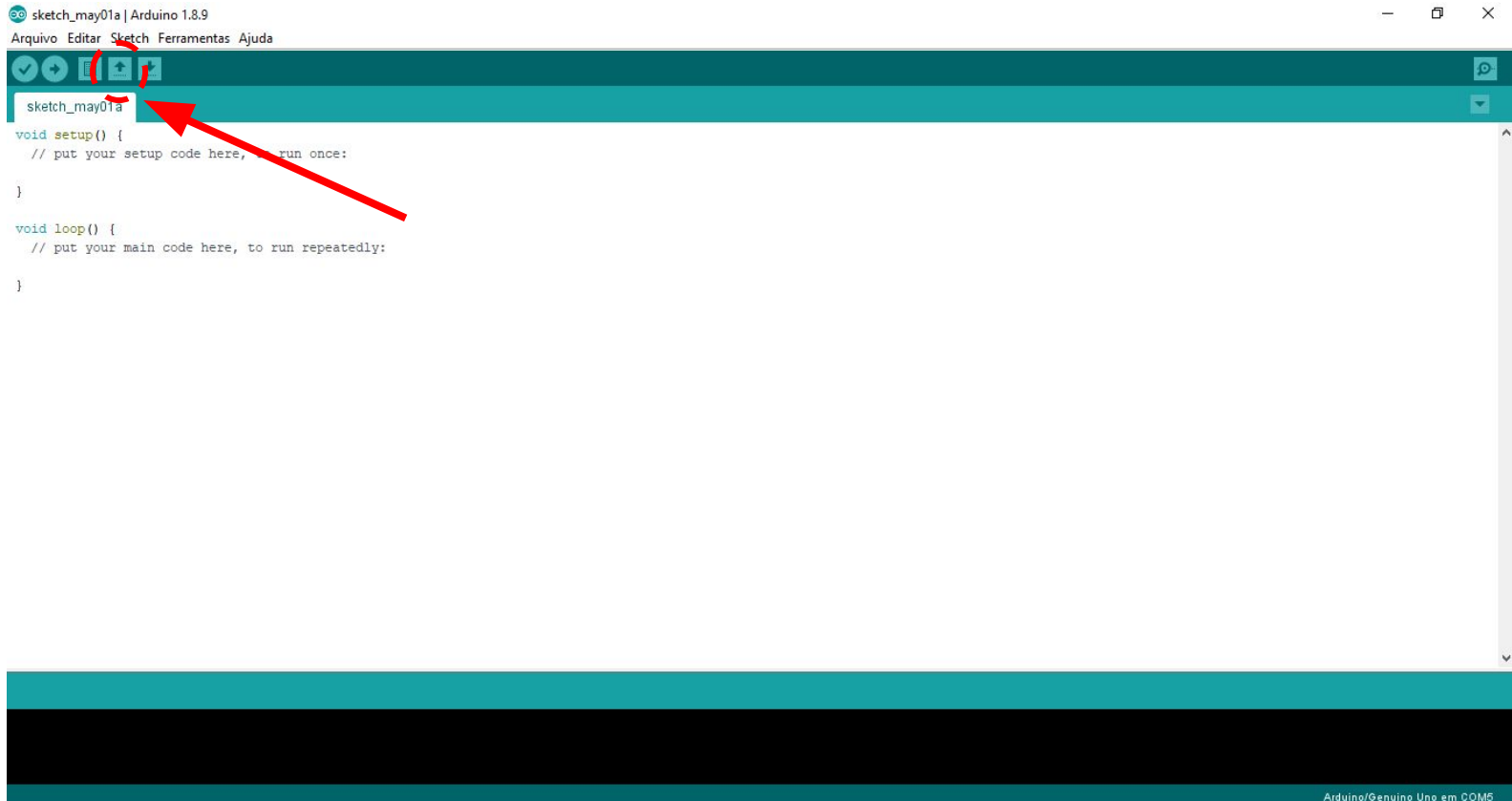
Upload do Projeto



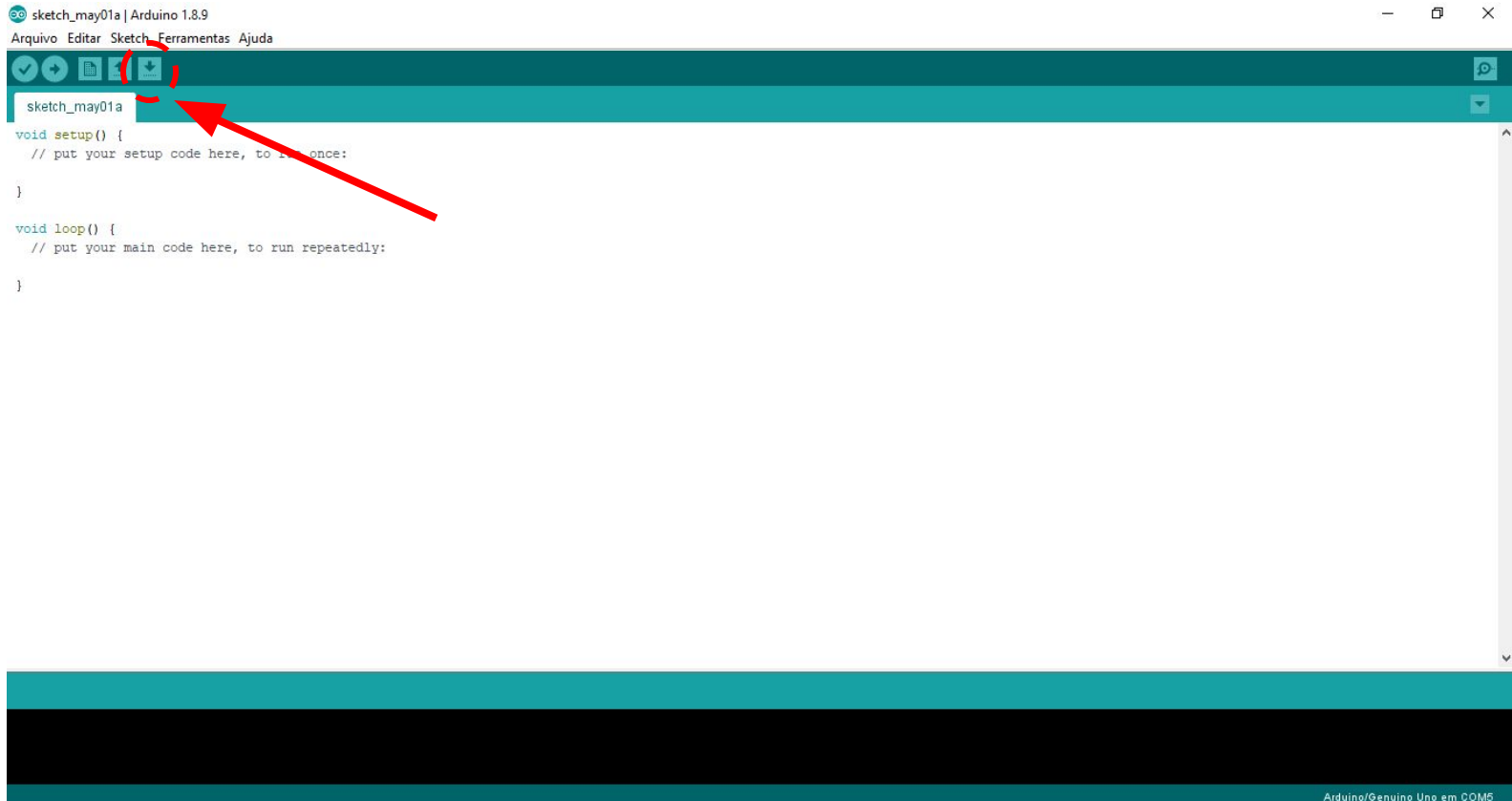
Novo Projeto



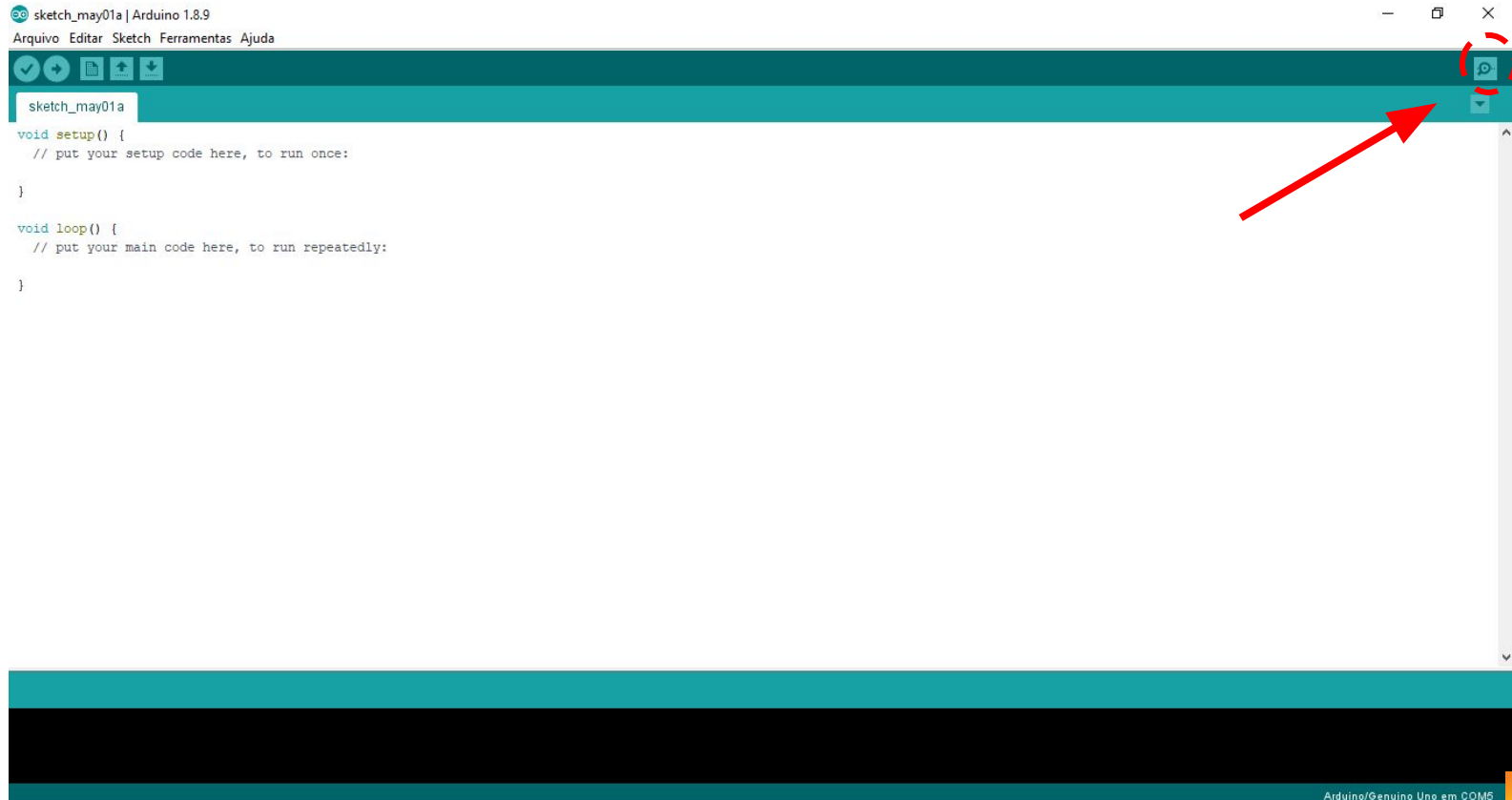
Abrir Projeto



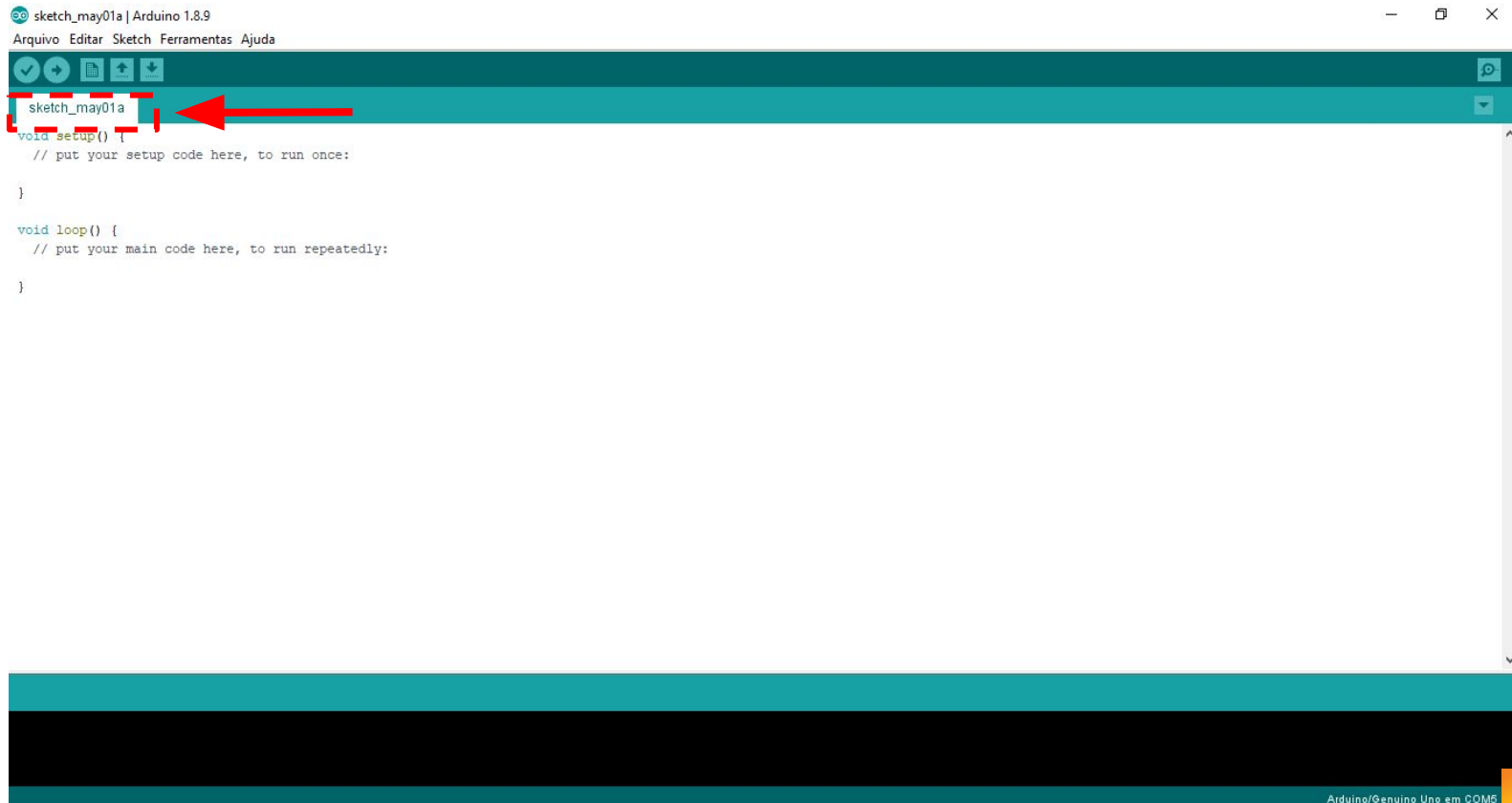
Salvar Projeto



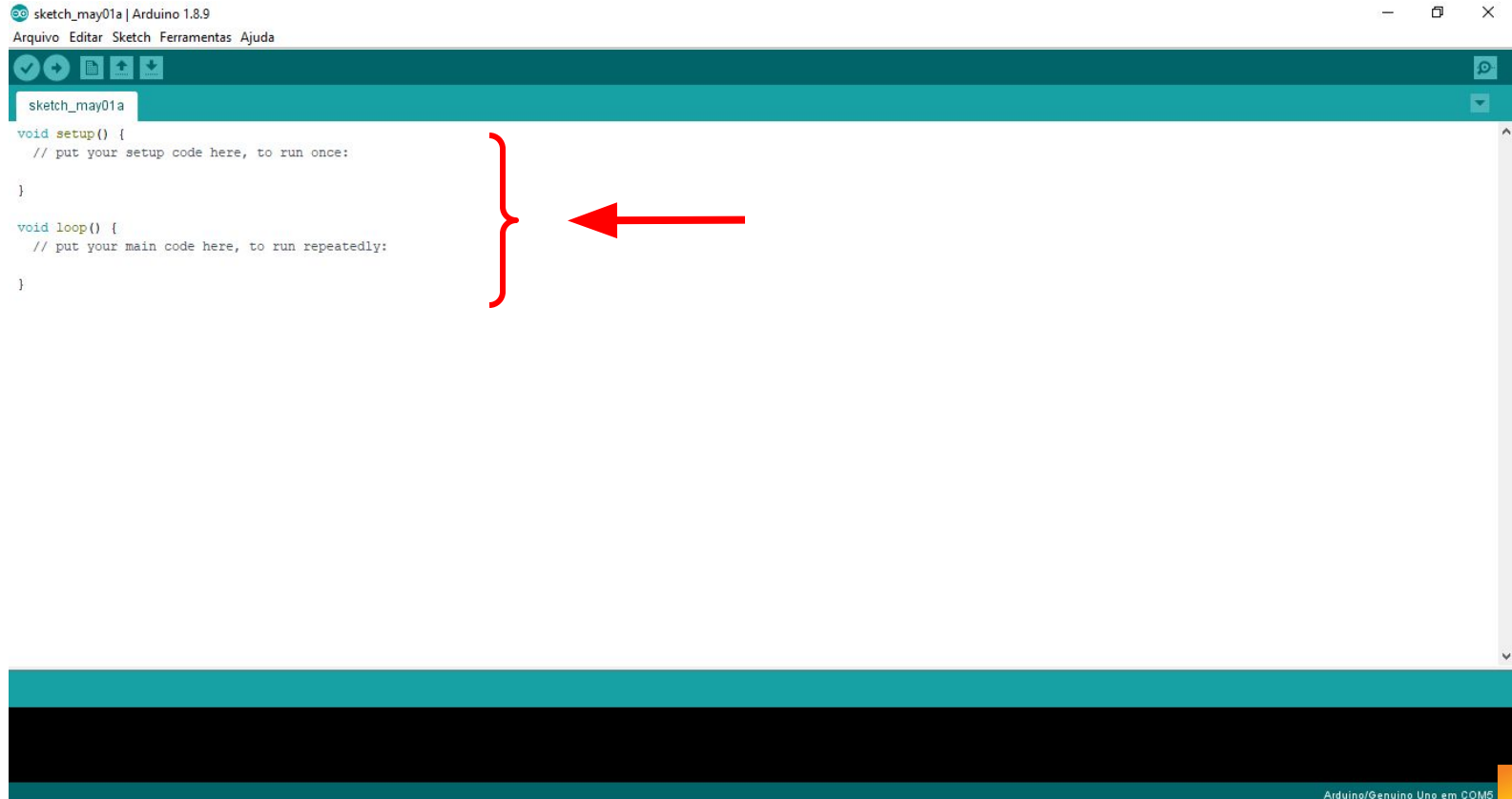
Monitor Serial



Nome do Projeto



Estrutura básica de código



```
sketch_may01a | Arduino 1.8.9
Arquivo Editar Sketch Ferramentas Ajuda

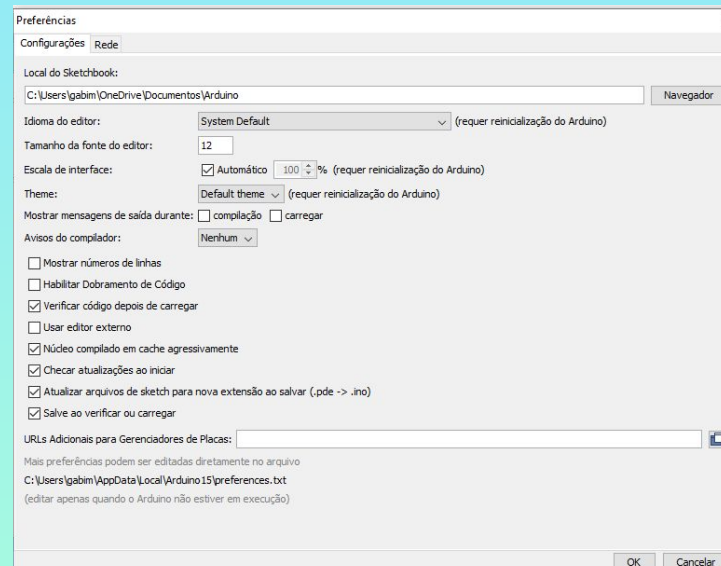
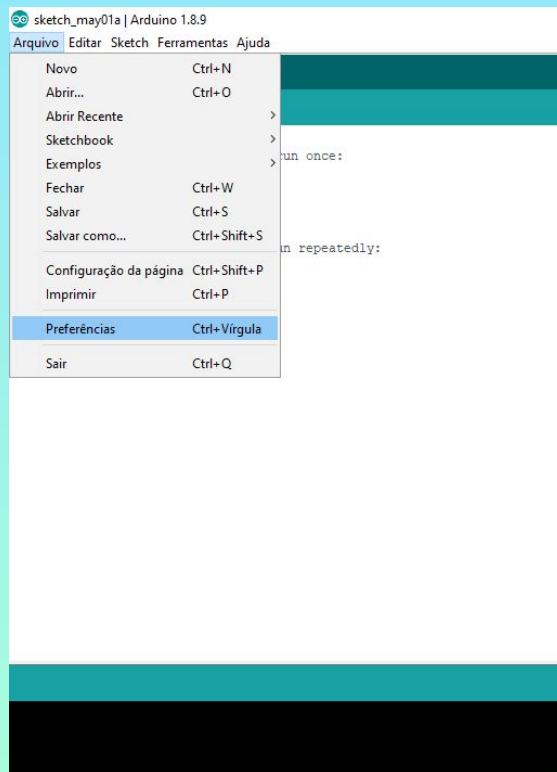
sketch_may01a

void setup() {
  // put your setup code here, to run once:
}

void loop() {
  // put your main code here, to run repeatedly:
}
```

The image shows the Arduino IDE interface with a sketch named 'sketch_may01a'. The code is written in the main editor area. A red bracket and arrow highlight the 'void loop()' function, indicating its role in running repeatedly.

Mudanças básicas: layout



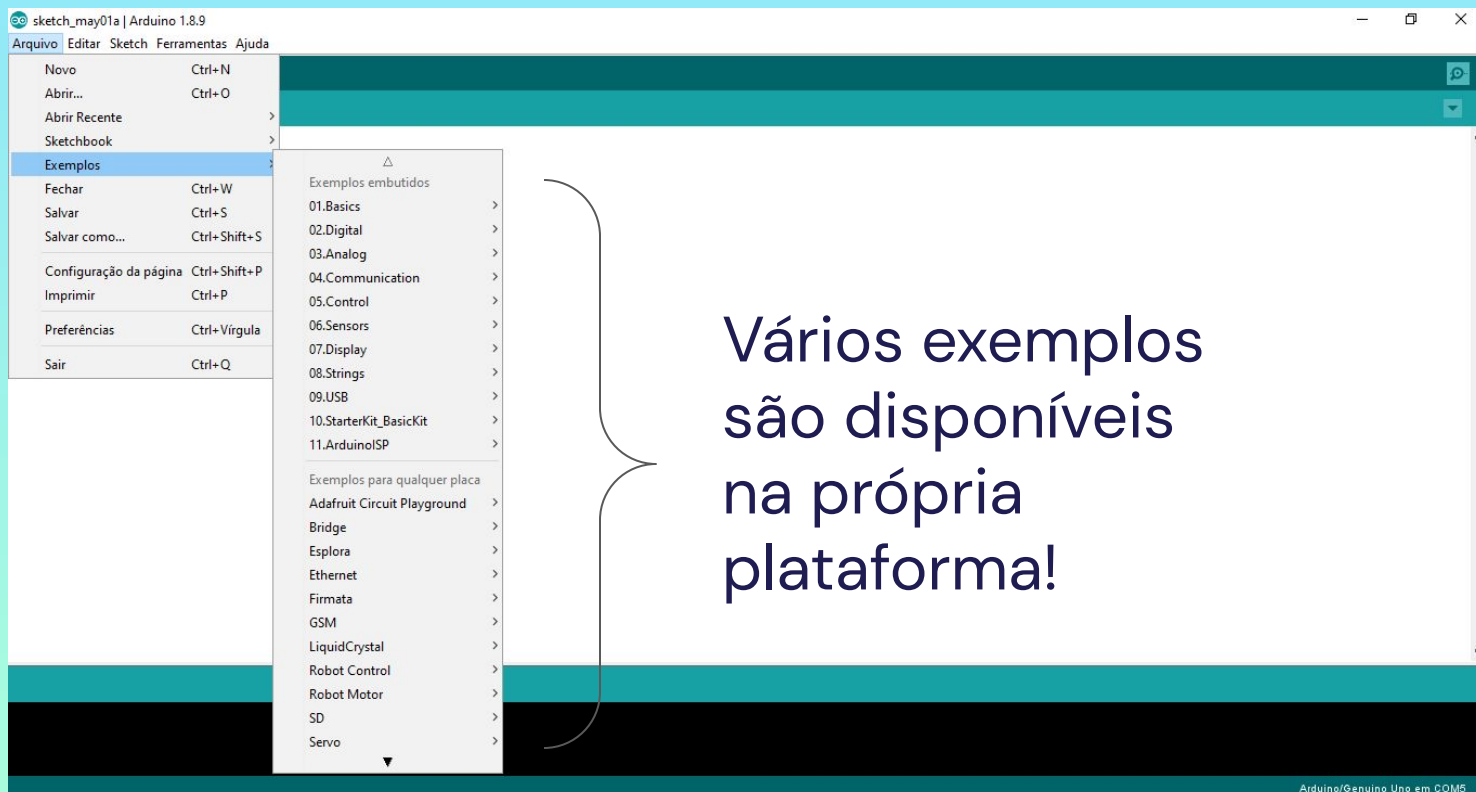
03

Projetos

Exemplos e Configurações



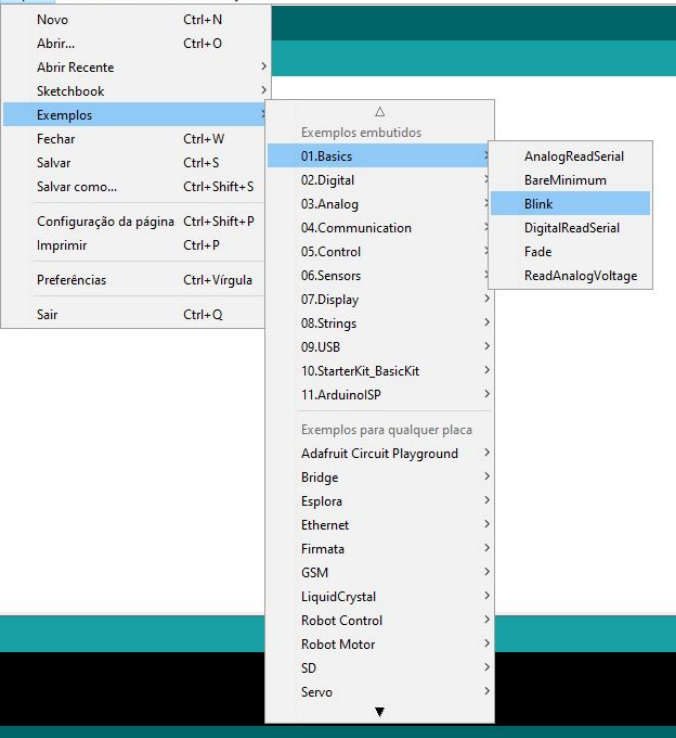
Exemplos



Exemplo: Blink

sketch_may01a | Arduino 1.8.9

Arquivo Editar Sketch Ferramentas Ajuda

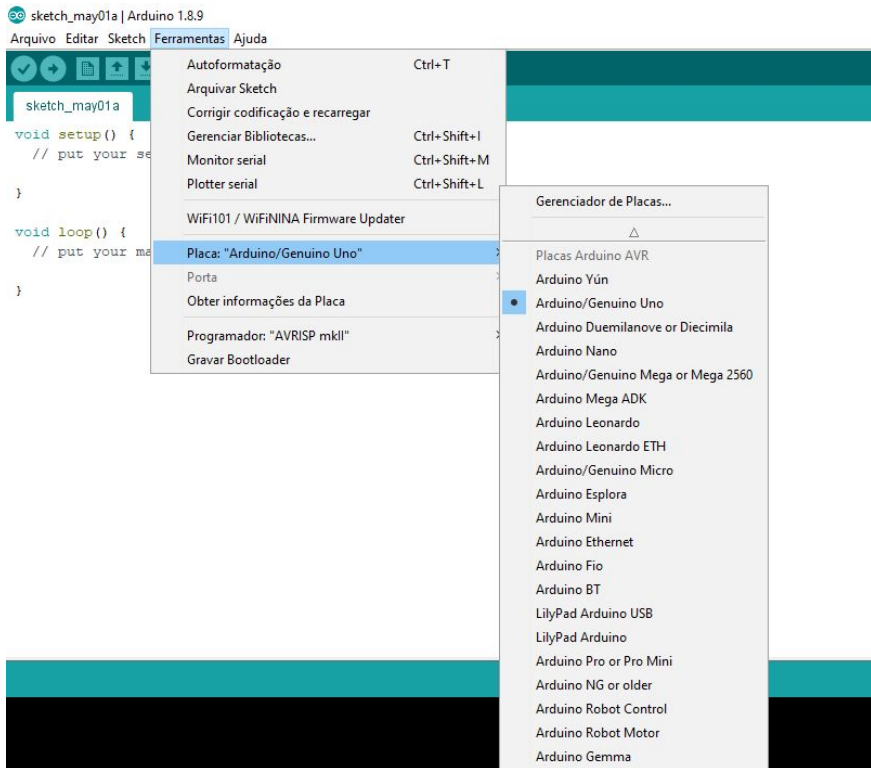


```
// the setup function runs once when you press reset or power the board
void setup() {
  // initialize digital pin LED_BUILTIN as an output.
  pinMode(LED_BUILTIN, OUTPUT);
}

// the loop function runs over and over again forever
void loop() {
  digitalWrite(LED_BUILTIN, HIGH); // turn the LED on (HIGH is the voltage level)
  delay(1000);                     // wait for a second
  digitalWrite(LED_BUILTIN, LOW);  // turn the LED off by making the voltage LOW
  delay(1000);                     // wait for a second
}
```

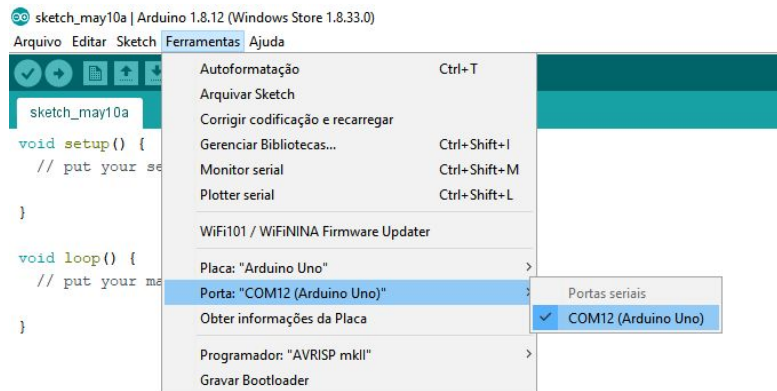
Pisca o LED do Arduino!

Configurando entrada do Arduino



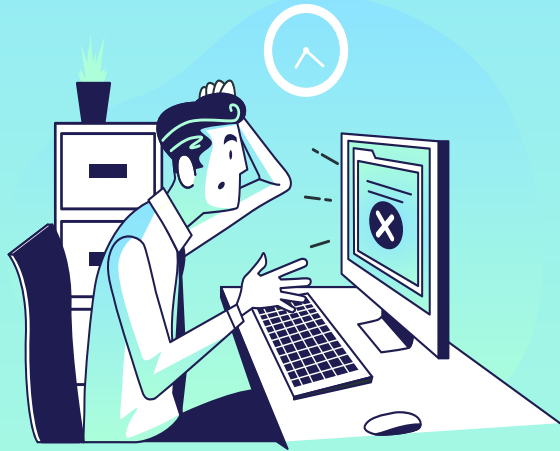
01- Selecionar o Arduino Utilizado

Configurando entrada do Arduino



02- Selecionar a Porta Utilizada

Dúvidas?



Fale conosco!

Obrigado!

Como forma de atender a todas as dúvidas, segue abaixo o e-mail dos envolvidos no desenvolvimento desse vídeo:

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- lucas.fernandes@cear.ufpb.br

Créditos:

- Modelo de Apresentação por Slidego
- Ícones por Flaticon
- Infográficos e Imagens por Freepik
- Conteúdo por Gabriela de Moura

