Arduino IDE on Ubuntu LTS 22.04

9/16/2023

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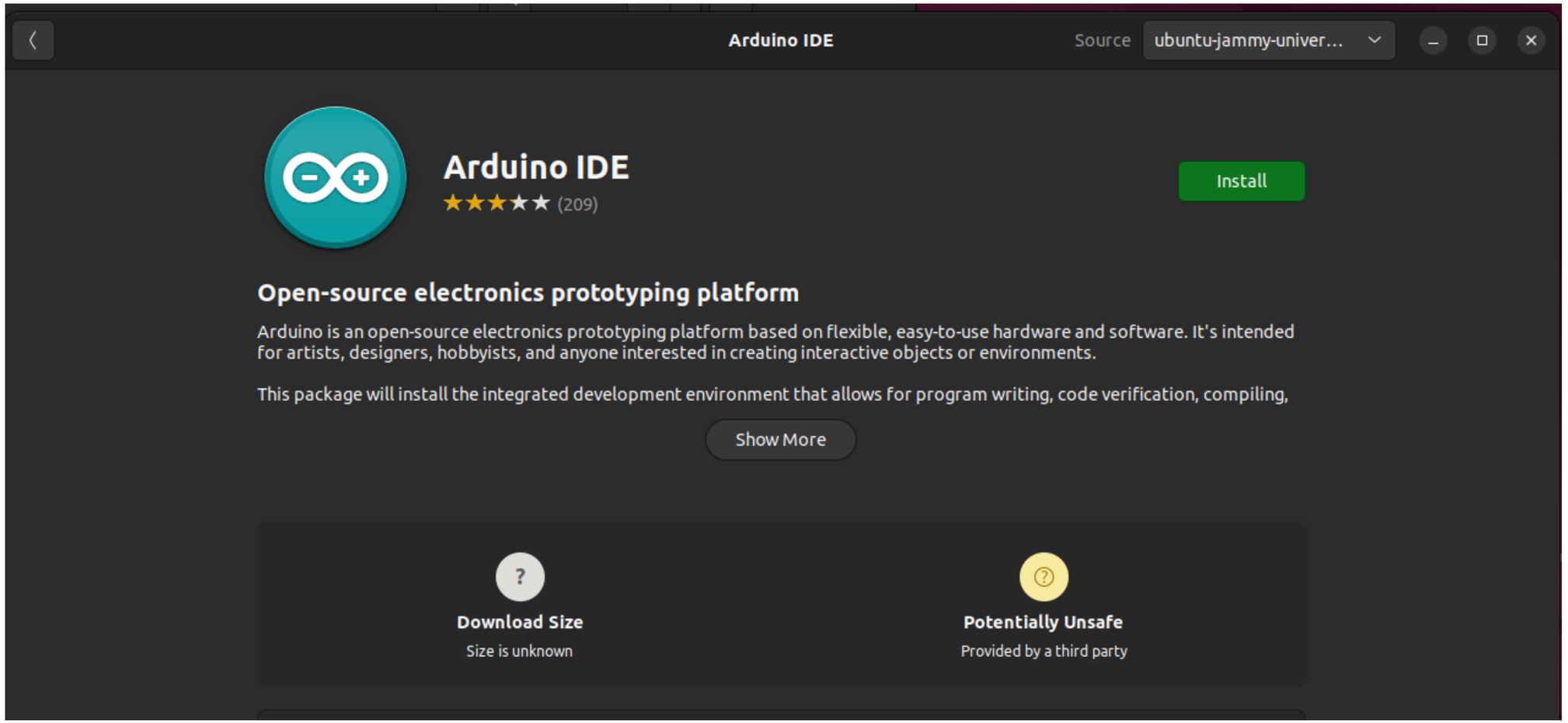
- ❑ Installation of Arduino IDE with script typing at Console
- ❑ Arduino IDE installation by snap-store
- ❑ Board Manager and Include Library
- ❑ Publisher Example “Hello ros2arduino 01”

Installation of Arduino IDE

- Installation of Arduino IDE with script typing at Terminal

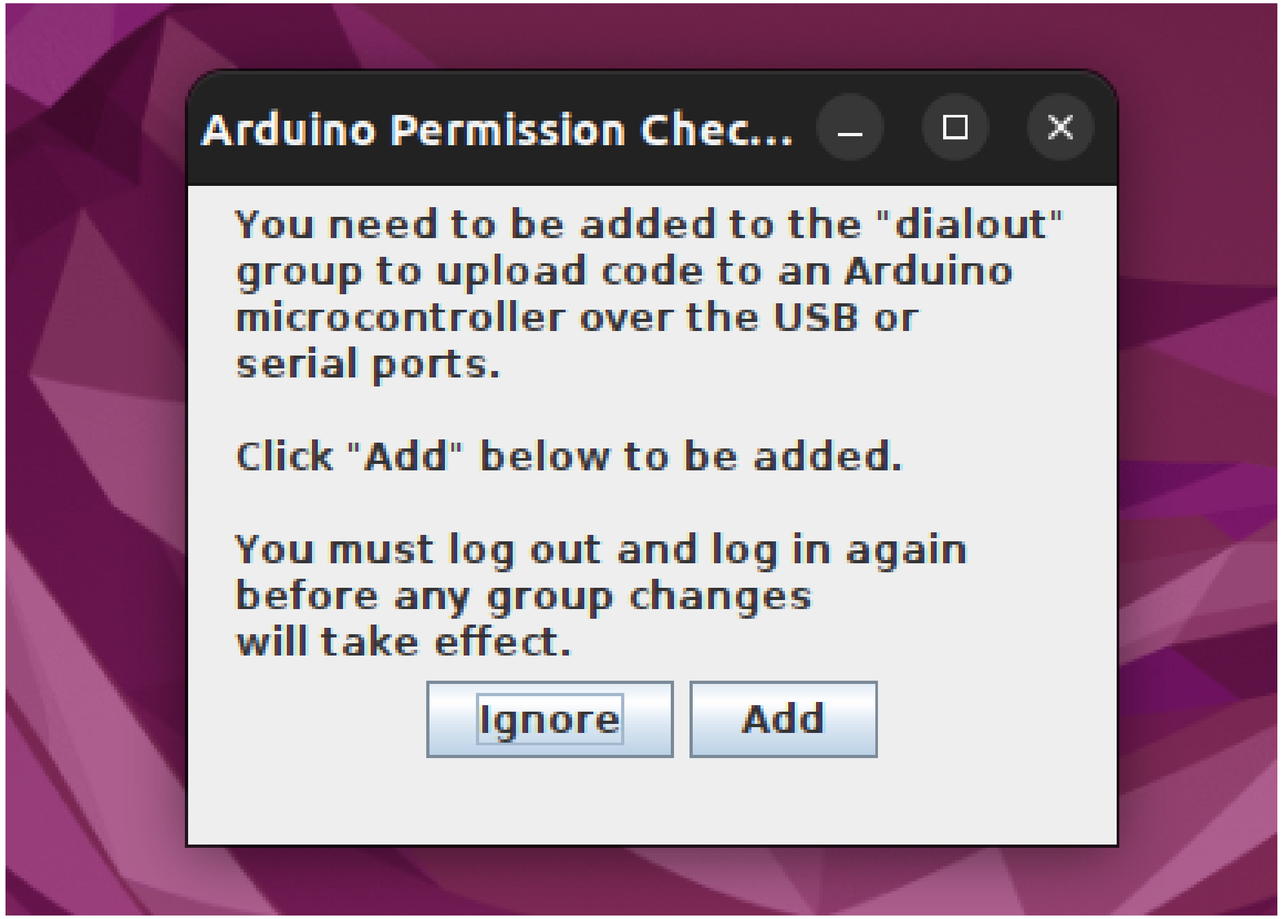
Installation of Arduino IDE

- Arduino IDE installation by snap-store 1



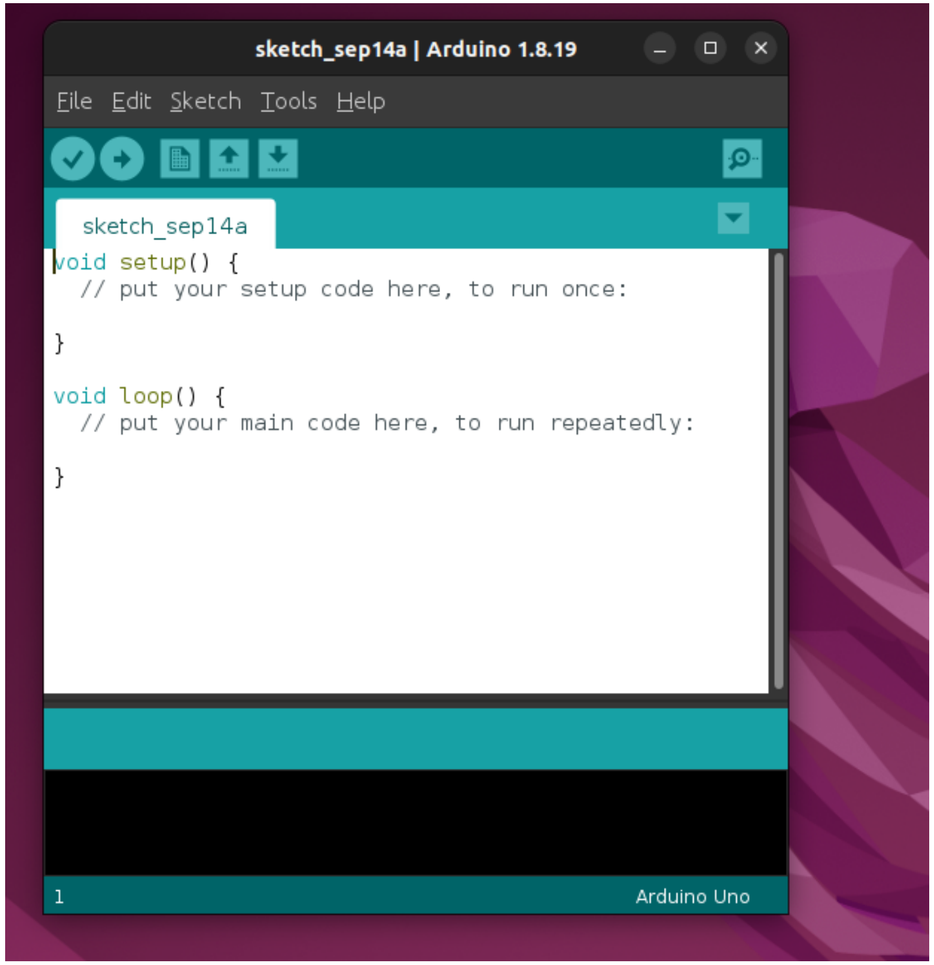
Installation of Arduino IDE

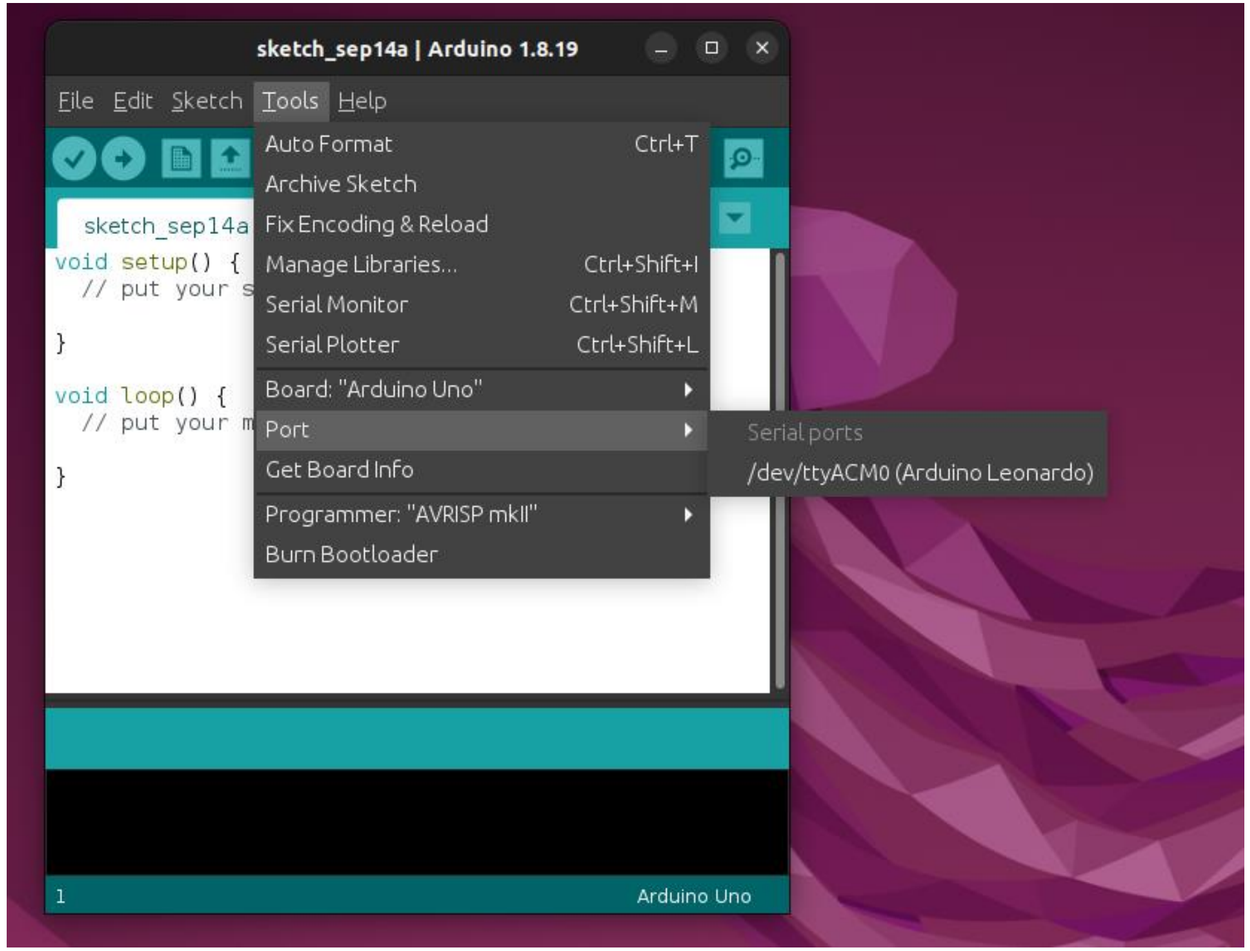
- Arduino IDE installation by snap-store 2



Installation of Arduino IDE

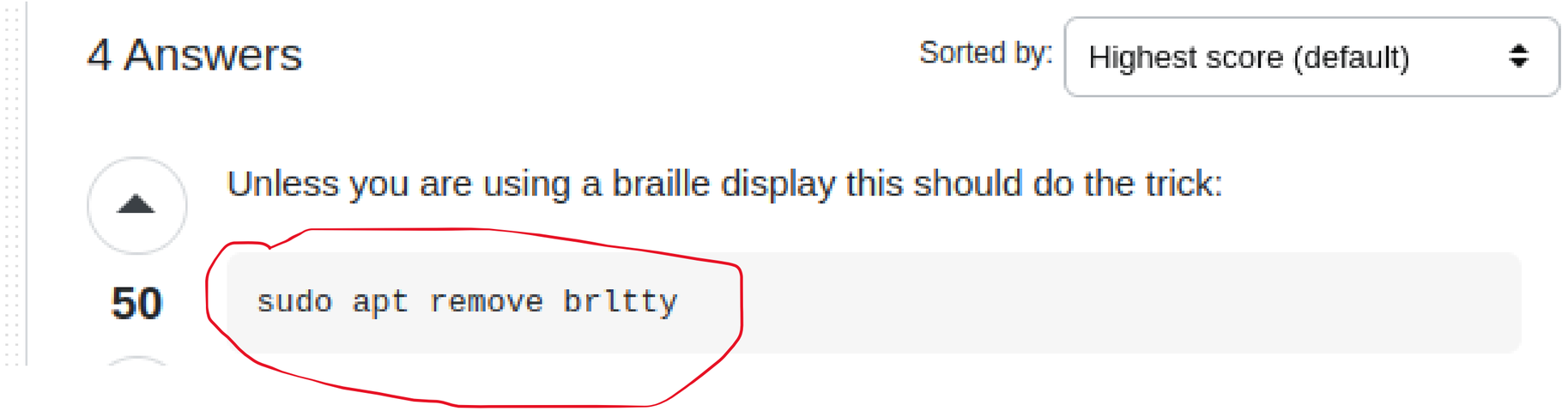
- Arduino IDE installation by snap-store 3



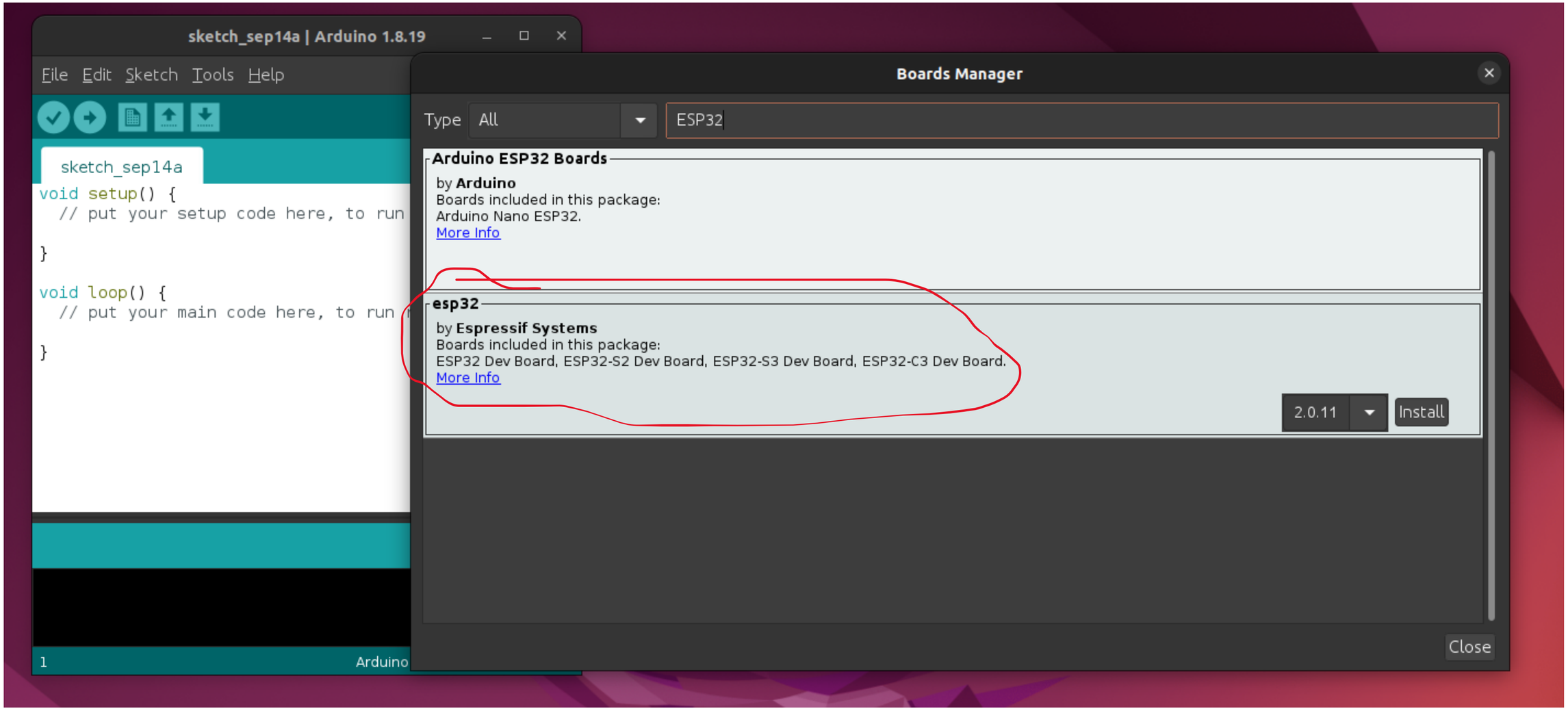


Installation of Arduino IDE

- ❑ Arduino IDE installation by snap-store 4
- ❑ CH340 USB-to-Serial Port Driver Installation
  or using a braille display

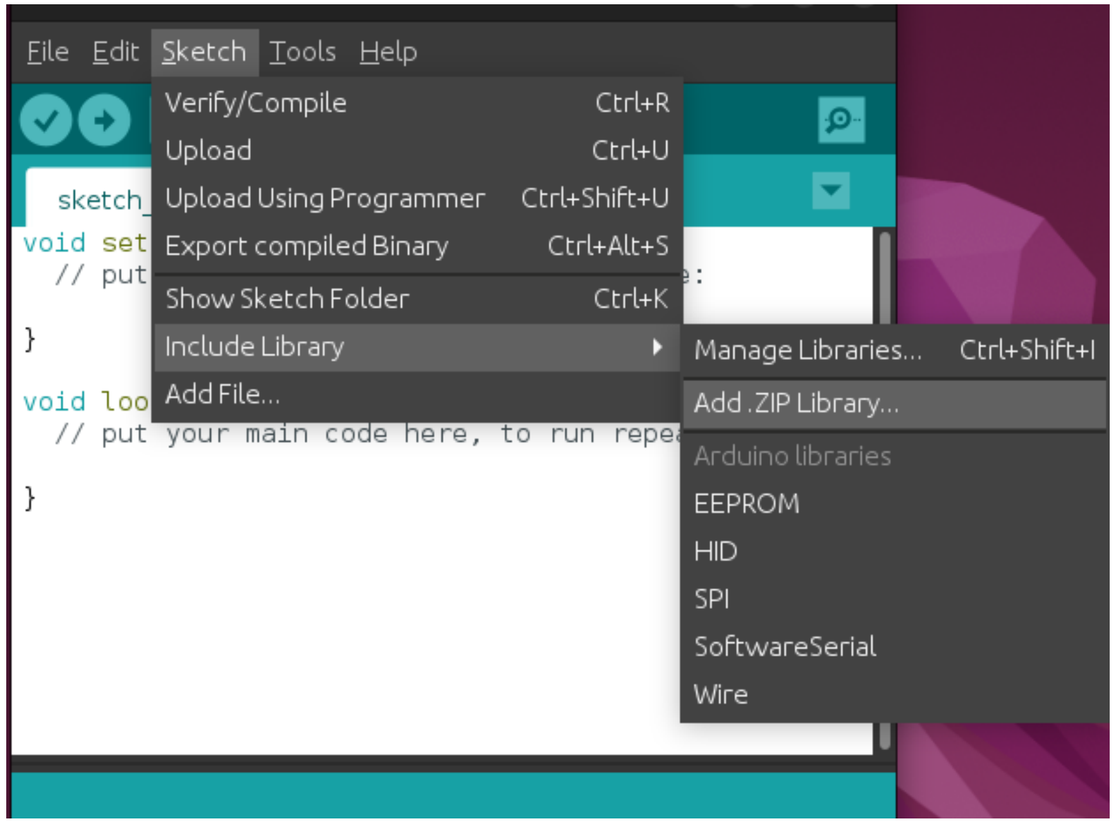


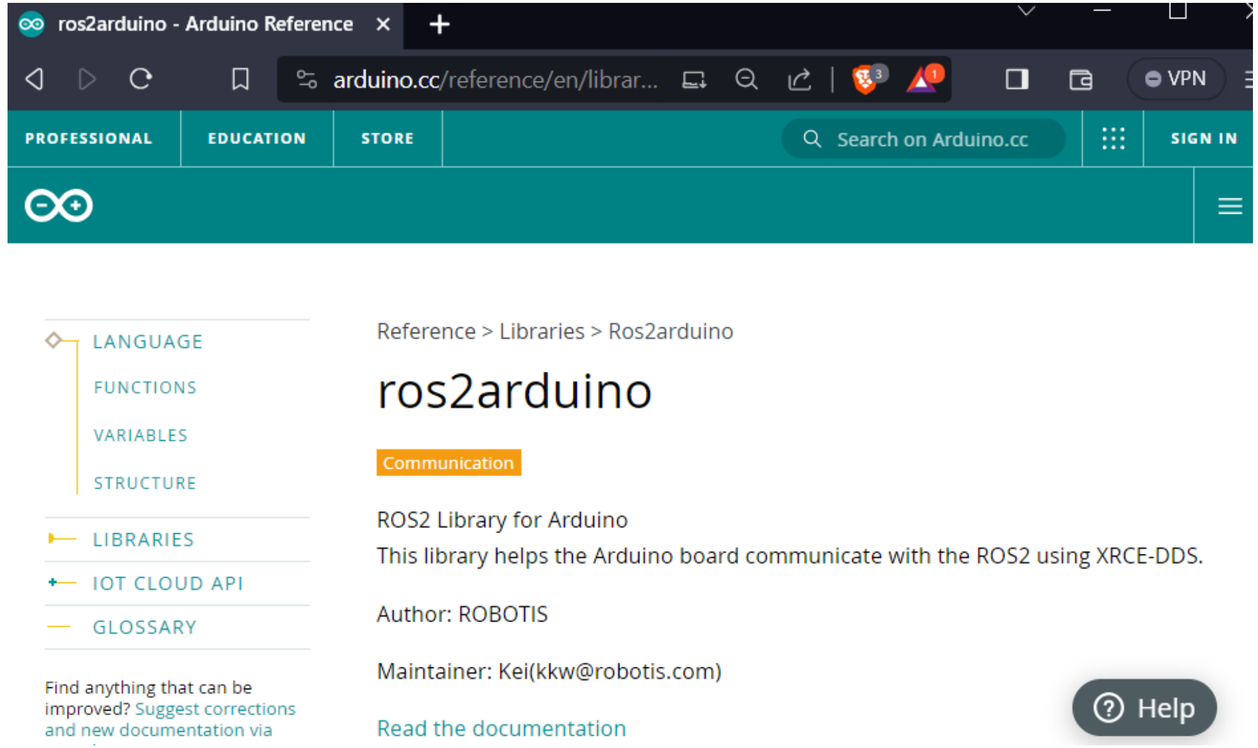
Board Manager and Include Library



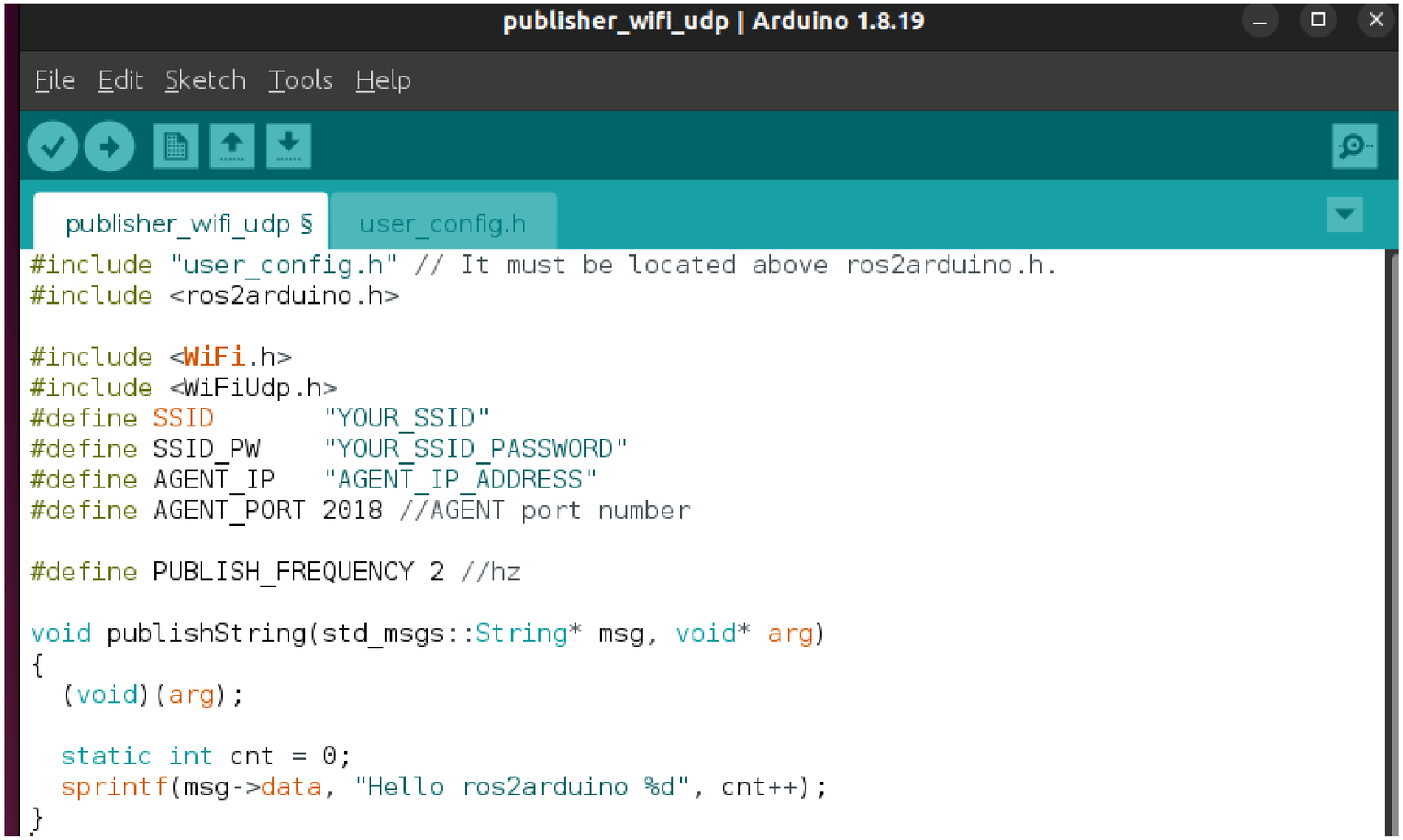
Board Manager and Include Library

- ❑ Download ros2arduino library from Arduino Official Website
- ❑ https://www.arduino.cc/reference/en/libraries/ros2arduino/
- ❑ Install ros2arduino library with “Add .Zip Library feature”





Pubulisher wifi udp example



Pubulisher wifi udp example

```
class StringPub : public ros2::Node
{
public:
  StringPub()
  : Node("ros2arduino_pub_node")
  {
    ros2::Publisher<std_msgs::String>* publisher_ =
                      this->createPublisher<std_msgs::String>("arduino_chatter");
    this->createWallFreq(PUBLISH_FREQUENCY,
                      (ros2::CallbackFunc)publishString, nullptr, publisher_);
  }
};

WiFiUDP udp;

void setup()
{
  WiFi.begin(SSID, SSID_PW);
  while(WiFi.status() != WL_CONNECTED);

  ros2::init(&udp, AGENT_IP, AGENT_PORT);
}
```

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Pubulisher wifi udp example

- Micro-XRCE-DDS-Agent and ROS2 (dashing) are required.