

Lesson 4 Video Series Script and Artwork Brief

Hello ESP32

This video set should keep the same whiteboard-tech look while making the hardware transition feel calm, safe, and achievable.

Recommended Video Set

Video	Length	Purpose
1 Meet the ESP32	4 to 6 min	Identify the board, USB cable, and safe no-wiring setup.
2 Setup and Loop	7 to 9 min	Explain how Arduino sketches differ from desktop main programs.
3 Upload and Serial Monitor	8 to 10 min	Walk through board, port, upload, and 115200 baud Serial Monitor.
4 Lesson 4 Skill Check	5 to 7 min	Modify messages and prove setup runs once while loop repeats.

Master Artwork Prompt

Clean high-resolution educational whiteboard illustration for a beginner robotics C++ course, bright white background, bold black marker lines, teal and electric blue accents, small orange highlights, laptop connected by USB cable to an ESP32 DevKit board, Serial Monitor message bubbles, setup once and loop repeat arrows, polished hand-drawn classroom style, spacious 16 by 9 composition, no readable text, no logos.

Scene Plan

Time	On Screen	Narration
0:00	Title card: Hello ESP32	Today your C++ code moves from the laptop to a real microcontroller.
0:20	Laptop USB cable ESP32	Keep this first hardware lesson safe: USB only, no motors, no extra wiring.
0:45	setup and loop diagram	Setup runs once. Loop repeats again and again.
1:15	Arduino IDE board and port	Choose the ESP32 board and the port connected to your board.

1:50	Serial Monitor at 115200	The Serial Monitor lets the board talk back to you.
2:20	Skill check	Change the messages, upload again, and explain what runs once and what repeats.

Prompt Bank

Use	Prompt
Title card	Whiteboard-tech C++ robotics classroom title card, laptop connected to ESP32 board by USB, teal and blue accents, no readable text, 16:9.
setup loop	Hand-drawn setup once arrow and loop repeat arrow around an ESP32 board, clean whiteboard style, no readable text, 16:9.
Serial Monitor	Laptop screen with abstract Serial Monitor message bubbles from a connected ESP32 board, bright whiteboard classroom style, no readable text, 16:9.

Video Status

Lesson 4 video: available on this lesson's website page with synchronized captions.

Downloadable transcript: available beside the video on the lesson page.

Classroom use: Play the lesson video, pause for discussion, and then begin the guided student activity.