

Lesson 4 Instructor Answer Key

Hello ESP32

Equivalent correct answers are acceptable when students can safely upload to the ESP32, view Serial Monitor output, and explain setup and loop.

Exercise 1 Sample Answers

Code	What It Does
<code>void setup()</code>	Defines the block that runs once when the ESP32 starts or resets.
<code>void loop()</code>	Defines the block that repeats while the ESP32 has power.
<code>Serial.begin(115200);</code>	Starts Serial communication at 115200 baud.
<code>Serial.println("Hello, ESP32!");</code>	Prints a line of text to the Serial Monitor.
<code>delay(1000);</code>	Waits about one second.

Exercise 3 Bug Fixes

Buggy Code	Corrected Code
<code>Serial.println("Hello ESP32!")</code>	<code>Serial.println("Hello ESP32!");</code>
<code>Serial.begin(115200)</code>	<code>Serial.begin(115200);</code>
<code>serial.println("loop");</code>	<code>Serial.println("loop");</code>
<code>delay(1000)</code>	<code>delay(1000);</code>

Skill Check Sample Answer

```
void setup() {  
  Serial.begin(115200);  
  delay(1000);  
  
  Serial.println("Hello, ESP32!");  
  Serial.println("Team 12345 is connected.");  
  Serial.println("Setup runs once.");  
}
```

```
void loop() {  
  Serial.println("Robot controller is alive.");  
  delay(1000);  
}
```

Suggested Rubric

Result	Description
Ready	Student uploads successfully, opens Serial Monitor, modifies messages, and explains setup versus loop.
Almost ready	Student succeeds after small support with port, board, or syntax.
Needs support	Student cannot yet upload or explain the sketch without direct step-by-step help.