TI-RSLK MAX

Texas Instruments Robotics System Learning Kit

Texas Instruments

Module 20

Activity: Wi-Fi

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Question 1

How many packets does it take to send the request for weather?

Question 2

What is the theoretical latency of your Wi-Fi data transfer? What is the real-world latency of your data transfer over Wi-Fi?

Question 3

For the Wi-Fi we made use of the SimpleLink™ SDK and a second microcontroller in the CC3100.

Part a) What advantages did using the CC3100 bring to the project?

Part b) What advantages did using the SimpleLink SDK bring to the project? In particular, how does using an SDK affect scaling the software project to include new features like the internet of things?

Part c) To enables the TCP socket connection where data can be transferred what high level functions does the client have to do? What functions does the server have to do?

Question 4

One Wi-Fi mode that was not discussed in the lab was peer to peer mode also known as Wi-Fi direct. Consider how you could have configured the CC3100 to operate in peer to peer mode, and how you could use this mode for a robotic competition.

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