**Subject:** Inquiry: nRF54L15 DK Schematics & Programming Options

**Dear Nordic Team,**

I am participating in the **Board Designer Competition** sponsored by **Nordic Semiconductor and Autodesk Fusion 360**. My project has been **selected for free hardware**, and I am using the **nRF54L15 SoC**, as mandated by the competition, in pursuit of the **Kitchen Sink Award**.

### **I plan to make this project fully open-source, documenting everything from hardware design and programming to real-world performance measurements. This means the community will have a complete, well-documented reference for working with the nRF54L15 SoC, increasing its adoption and making it easier for developers to integrate Nordic's technology into future projects. Given this, I would greatly appreciate your guidance in the following areas:**

### **1. Request for Development Kit Schematics and PCB Files**

Would you be able to share the **schematics and PCB design files** for the **nRF54L15 Development Kit**? Having access to these resources would help me follow best design practices and ensure compatibility with my custom PCB.

### **2. Programming Options for My Custom PCB**

I am integrating an **ESP32‑WROOM alongside the nRF54L15 SoC** in my design and evaluating different programming approaches. Could you provide recommendations on the following?

#### **a) Using the nRF54L15 DK as a Debugger**

* If I purchase the **nRF54L15 DK** (DigiKey link: [insert link]), does it include the **necessary debugging cables** for programming an external board?
* I plan to include a **10-pin SWD debug connector** (similar to **P19 on the DK**) in my custom PCB for easy debugging.

#### **b) Using an External Segger J-Link Debugger**

* Instead of using the DK, I could purchase a **standalone Segger J-Link debugger**.
* Could you recommend **cost-effective external debuggers** that are compatible with the **nRF54L15 SoC**?

#### **c) Programming the nRF54L15 via Another MCU (ESP32)**

* Would it be possible to use the **ESP32** on my board to **program the nRF54L15 SoC**?
* If so, which **interfaces on both the ESP32 and nRF54L15** should I use?
* I understand **SWD is the primary programming interface**, but is there a way to bridge this using the ESP32?