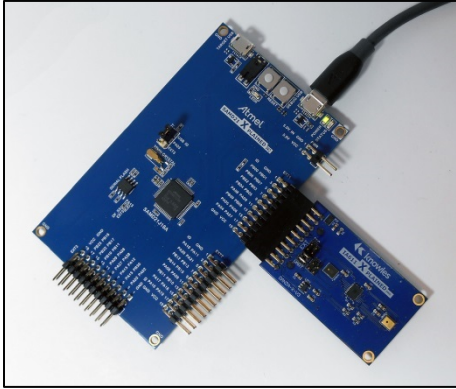


## IA611 Xplained Pro Demo Quick Start Guide



**Figure 1** IA611 Xplained Pro Connected to SAM D21 Xplained Pro Development Board

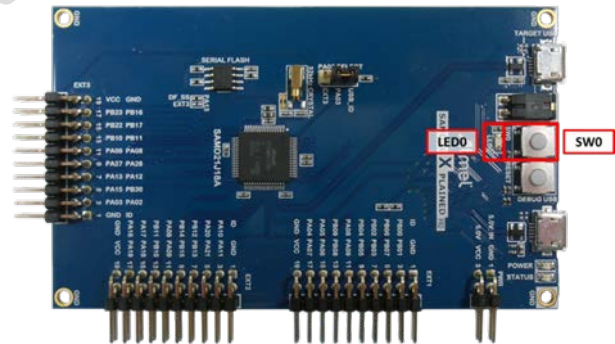
1. Install Atmel Studio 7 from [microchip.com/mplab/avr-support/atmel-studio-7](http://microchip.com/mplab/avr-support/atmel-studio-7).
2. Download and install the Knowles IA611-RDI-01 Xplained Pro - Demo extension from the Microchip Gallery ([gallery.microchip.com/packages](http://gallery.microchip.com/packages)).
3. Plug the **IA611 Xplained Pro** board into the **EXT1** connector of the **SAM D21 Explained Pro** MCU board as shown in Figure 1.

**NOTE** The default project is built for UART so leave the jumpers on the IA611 Xplained Pro board in the default UART position.

4. Connect a micro USB cable between the **DEBUG USB** connector and your computer's USB port.
5. Launch Atmel Studio 7 and select **File -> New -> Example Project...**
6. Expand the **Knowles – Knowles Corporation** project, select **IA611-SAMD21 – Demo – atsamd21j18a** and click **OK**.  
**NOTE:** Take note of the project location as you will need it to locate the ".hex" file in Step 10.
7. Check the **I accept the license agreement** checkbox and click **Finish**.

8. Go to **Tools -> Device Programming** and in the **Tool** drop-down menu select the SAM D21 board you intend to flash based on the serial number.
9. Click **Apply** to apply settings followed by clicking **Read** to read the device signature to confirm that Atmel Studio 7 is communicating with the hardware. You should get a **Reading device ID...OK** confirmation.
10. Select **Memories** from the left panel and browse to locate the **RDI\_VQ-SAMD21\_UART\_V\_2\_0\_3.hex** file within **Binfiles** under the project directory. Click **Program** to flash the hardware.
11. Say the wake keyword phrase "Hello VoiceQ" followed by one of the command phrases below and observe the state of **LED0** as shown in Figure 2.

**NOTE** If the command phrase is not said within six seconds, the keyword will time out as indicated by LED0 blinking six times.



**Figure 2** SAM D21 Development Board LED0

Wake Keyword	LED0 Blinks	Command	LED0 Blinks
Hello VoiceQ	1 time	Switch the Light	2 times
		Next Song	3 times
		Baidu Yi Xia (by do ee sha)	4 times

Additional documentation is available at  
<project directory>\Documents and <https://solutions.knowles.com>