Music Cubes - C24

Set Up of microcontroller

To connect a XIAO nRF52840 Sense microcontroller to Ableton Live using Arduino IDE, you would typically use the MIDI-over-USB capabilities of the XIAO board. Here's a general guide on how to do this:

1. Setup Arduino IDE: Make sure you have Arduino IDE installed on your computer. If not, download and install it from the Arduino website.
2. Install Board Support Package (BSP): You need to install the board support package for the XIAO board in Arduino IDE. Follow the instructions provided by the manufacturer of the XIAO board to install the necessary drivers and BSP.
3. Write Code: Write your Arduino sketch to read sensor data from the XIAO board and send MIDI messages over USB. You can use libraries like MIDI.h for MIDI message handling.
4. Connect Sensors: Connect your sensors to the appropriate pins on the XIAO board. If you're using the nRF52840 Sense version, it may already have onboard sensors like accelerometers, gyroscopes, and more.
5. Upload Code: Connect the XIAO board to your computer using a USB cable. Select the correct board and port in the Arduino IDE, then upload your code to the board.
6. Test Communication: Once the code is uploaded, open Ableton Live on your computer. The XIAO board should appear as a MIDI device in Ableton Live's MIDI settings. Configure Ableton Live to receive MIDI messages from the XIAO board.
7. Test Your Setup: Send MIDI messages from your XIAO board to Ableton Live using your sensors. For example, you could use accelerometer data to control MIDI parameters in Ableton Live.
8. Debug and Refine: Test your setup thoroughly and debug any issues you encounter. You may need to refine your code and sensor connections to achieve the desired behavior.

Remember to refer to the documentation provided by the manufacturer of the XIAO board for specific instructions on setting up and programming the board. Additionally, refer to the documentation for Ableton Live for information on configuring MIDI devices and mapping MIDI controls within the software.