

## **Show off Your Breadboard Prototype**

### **Team 14**

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#### **Components used:**

- Arduino Uno R4 Wi-Fi
- Amplifier to adjust the sound
- 2 speaker
- A MicroSD adapter (Used to have a way to call our volume file to the processor)
- Throttle Positioning sensor (Basically a potentiometer)
- AUX connection (we used it to get the sound just for testing)
- Breadboard & wires
- Power Supply at 9V (used to test out a HP filter to cut some noise for sound testing)

#### **Report Status:**

In our current setup, all components are functioning individually, with the AUX connection allowing us to test the initial sound output through the amplifier and speakers. However, the throttle position sensor did not adjust the sound as intended since the audio is generated through the AUX connection. Our plan is to connect the throttle to the MicroSD card adapter to adjust the sound directly, but the AUX is just to test the speakers until we have the MicroSD adapter. We are also working on optimizing the audio quality by reducing background noise using Audacity for software filtering and experimenting with hardware filtering options for a cleaner output. Our next steps involve refining the code to improve responsiveness and ensure seamless integration of the throttle control with the sound adjustments via the MicroSD card adapter. Overall, we are progressing well, with clear plans for final integration and refinement.

Video demonstration & pictures:

<https://youtube.com/shorts/UAWZsBNxeog>



