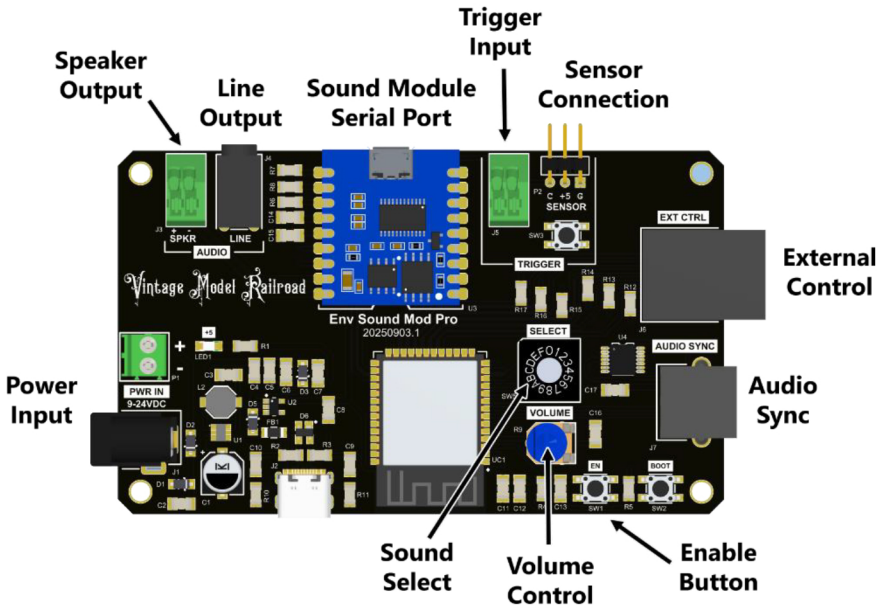
Environment Sound Module Pro – External Control

This instruction sheet will prove the user with the ability to control the ESMPro with an external micro controller such as an ESP32, Arduino, or Raspberry Pi.

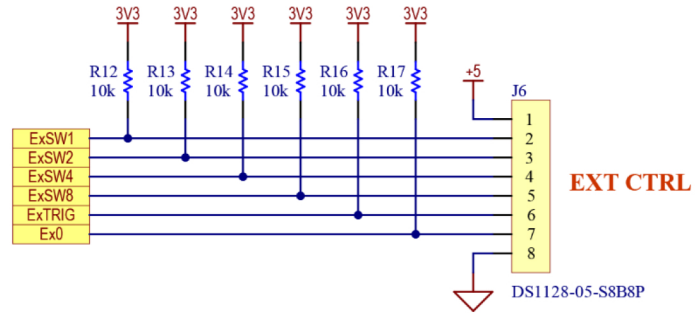


Benefits and Capabilities

In normal use, the ESM-Pro plays only the one selected sound whenever a trigger signal is present. There may be applications where the user may wish to play different sounds, play them at different times, or when different conditions are met. This level of control is possible through the use of the External Control connection on the ESMPro.

Connections:

Connect any of the standard connections to the ESMPro as determined by your application, such a speaker, line output, an Audo Sync board, a sensor, or external trigger.



The figure above is the schematic for the External Control connector on the ESMPro. Use a standard 8-pin RJ11/12 telephone cable to connect your custom controller to the ESMPro.

Power

5VDC power and ground are provided to power your custom controller on pins 1 and 8.

GPIO Connections

Connect GPIO pins from your controller to pins 2-6. These pins should be set as outputs.

The pins 2-5 are used to select the sound to be played. Pin 6 is used to generate a trigger when the sound is to be played.

CAUTION: The ESP32 on the ESM-Pro accepts only 3.3V input signals. Use resistors or level shifters to ensure that the GPIO outputs are either "open collector", "Hi Impedance", "Hi Z", or 3.3V when these outputs are high.