

Build Smarter Robots



www.EMGRobotics.com



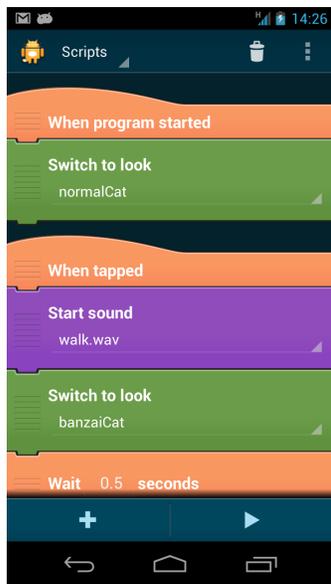
Build Smarter Projects, by connecting to the Headphone Jack

iOS

on your iOS or Android Device

The modern smartphone or tablet (mobile device) has more computing power than desktop computers had just 10 years ago. Modern mobile devices are full of sensors including: GPS, compass, 3-axis accelerometers, gyroscopes, etc and are well connected via cellular network, WiFi, and Bluetooth. Chances are, you have an old iPhone or Android phone in a drawer somewhere collecting dust. Put it to good use making your next DIY project smarter.

Programming is an important part of many Science, Technology, Engineering, and Math (STEM) education programs. Breaking a large task into smaller tasks is at the core of programming, and easily demonstrated graphically by visual based programming languages like Catroid. Mobile devices with high resolution touch screen displays make



[Catroid](#)

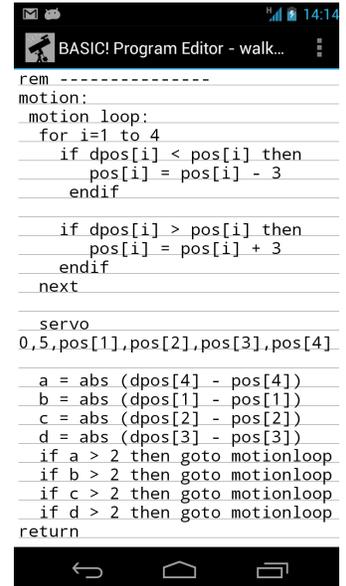
visual programming a literal “hand-on experience”. Inserting the mobile device into a DIY project that moves according to the program written using the GUI provides direct visual and physical feedback of the programming effort.

The EMGRobotics line of audio interface boards provides a low cost, easy to use, expandable interface between your mobile device’s headphone jack and DC motors or RC servos. You can control up to **16 RC servos or DC motors** by simply plugging an EMGRobotics audio interface board into the stereo headphone jack on your mobile device. **Compatible with both Android and iOS mobile devices with headphone jacks; almost any application that can generate audio tones between 1khz and 11khz or playback a wav file can control motors and RC servos using the EMGRobotics line of audio interface boards.**

Applications like Catroid (the GUI programming language for Android) can play back wav files that the EMGRobotics audio interface board converts to motion by controlling DC motors or RC servos. Programming languages like RFO BASIC for Android that can control up to 16 servos or motors using the ‘servo’ command. Finally, the EMGRobotics Servo Controller Android app lets you control motors and servos directly using on-screen sliders. Motion sequences can be recorded, edited, and played back. Motion sequences can be saved as wav files or RFO BASIC programs.

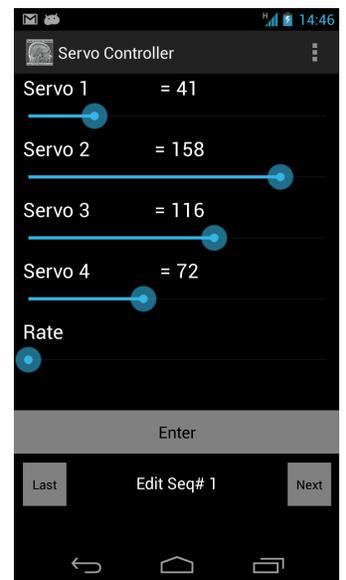
There may be other methods of interfacing motors and servos to mobile devices, but none are as easy to use and compatible with as many applications and devices, as the EMGRobotics audio interfacing products. If it can create tones between 1Khz and 11Khz, or playback wav files, it can control a servo or motor using the EMGRobotics audio interface boards.

To learn more go to: www.EMGRobotics.com



[RFO BASIC](#)

with “servo” command



[EMGRobotics Servo Controller](#)