

Feature	Description	Photos
1). Longitudinal Waveform	<ul style="list-style-type: none"> When SW[7] is set, a <u>moving longitudinal waveform</u> is generated on the OLED screen by taking in audio signals as input and converting them to digital signals. Intensity is displayed on the 7-segment display and LEDs light up accordingly. 	 
2). Multi - Volume Bar	<ul style="list-style-type: none"> When SW[7] & SW[12] is set, a <u>multi-volume bar</u> with <u>randomly changing colors</u> is displayed. 	
3). Audio - Emoji Display	<ul style="list-style-type: none"> When SW[7] & SW[13] is set, 3 types of <u>emojis</u> are displayed according to increasing audio intensity values. 	

4). Button Reaction Game

- When SW[9] & SW[0] is set, the **Reaction Test Game** starts at default speed 0.4s.
- 3 random colors are flashed, and the appropriate pushbuttons are to be pressed in (speed*7)s.
- Set SW[12:10] respectively for speeds 0.3s or 0.2s or 0.1s.
- 0.3s = EASY
0.2s = MEDIUM
0.1s = HARD
- Score at least 6/9 tries for a win. Score is displayed on AN0.

