1. My robot will sing the song *Levels* by Avicii. I will have the song notes pre written out, and the robot will play it. It will be played for a specific amount of time. This will be accomplished by combining the “while” loop with the “timeRemaining” function. Specifically, the song will be played while there is 5 seconds remaining. So, the end result will be the song playing for a total of 5 seconds.

2. My robot will draw two shapes...a square and a rectangle. It will draw the same shapes each time, however it will stop if it senses something in front of it. This is accomplished by checking every second or two to see if the “getObstacle” sensor is triggered. I wanted to make it constantly check for something in front of it, but learned that this would require a “multi threaded” program, which basically means it can execute two sets of code at the same time.

3. My robots surprise ability is doing one of two random dances. I am using the “rand” function to pick a number between one and ten. If it is one through 5 it will do dance 1, and if 6 through 10 it will do dance 2. I am also using the “srand” function to ensure the number is truly random each time.

4. Lastly, the structure of my performance will stay the same each time...except for when the dance ends. Basically, the robot will continue dancing until it senses a light in its lightSensor. So, to get the dance to stop someone would just need to shine a flashlight behind the robot for a few seconds.