```
#include <Servo.h>
#include <DFRobotDFPlayerMini.h>
#include <SoftwareSerial.h>
// Define pins for servo motors
Servo leftArm;
Servo rightArm;
Servo head;
// Pins for DFPlayer Mini (audio module)
SoftwareSerial mySoftwareSerial(10, 11); // RX, TX
DFRobotDFPlayerMini myDFPlayer;
// Setup variables for movement
int armPosition = 0;
bool armUp = true;
void setup() {
 // Initialize servos
 leftArm.attach(9); // Pin 9 for left arm servo
 rightArm.attach(8); // Pin 8 for right arm servo
 head.attach(7); // Pin 7 for head servo
 // Set up serial communication for DFPlayer
 mySoftwareSerial.begin(9600);
 Serial.begin(9600);
 // Initialize DFPlayer Mini
 if (!myDFPlayer.begin(mySoftwareSerial)) {
  Serial.println("DFPlayer error...");
  while (true);
 }
 myDFPlayer.volume(30); // Set volume level (0-30)
 // Initial arm positions
 leftArm.write(90); // Start at neutral position
 rightArm.write(90); // Start at neutral position
 head.write(90); // Head at neutral position
 // Play intro music or rap beat
 myDFPlayer.play(1); // Assumes first track is a beat or rap track
 delay(2000); // Wait for 2 seconds for beat to start
```

```
}
void loop() {
 // Control arm and head movements in sync with rap
 performRapActions();
void performRapActions() {
 // Move left arm up and down
 if (armUp) {
  armPosition += 5;
  if (armPosition >= 120) armUp = false;
 } else {
  armPosition -= 5;
  if (armPosition <= 60) armUp = true;
 }
 leftArm.write(armPosition);
 rightArm.write(180 - armPosition); // Mirror movement of right arm
 // Make the head "nod" to the beat
 head.write(90 + random(-15, 15)); // Small random head movements
 // Display rap lines (these could be timed with your audio track)
 if (millis() < 8000) {
  Serial.println("Yo, I'm MC Byte, coming out of sight!");
 } else if (millis() < 16000) {
  Serial.println("Arduino power, I rap with all my might!");
 } else if (millis() < 24000) {
  Serial.println("Waving these arms, spitting these bars,");
 } else if (millis() < 32000) {
  Serial.println("I'm a rap-bot superstar, reaching for the stars!");
  myDFPlayer.play(1); // Replay the beat when rap ends
 }
 delay(200); // Small delay between movements
```