

Week 11-12 Mini-animation assignment

As you have seen from the project, the topic I have studied more is about creating an animation by using `p5.Amplitude()`; (need to import the `p5.sound` as a library) an object that will listen to a specific sound that the user specifies by calling the `getLevel()` function. By default, it will measure the volume between 0 and 1 which can be used when plotting an amplitude (Moving mouth and Micro bug), and the last one is moving eyes that deals with `arc()`; and `angleMode(DEGREES)`; it will check the given condition in order to verify that it is time for opening or closing his eyes. I got the inspiration from the character named 'Kaonashi', in Spirited Away.

Result: (eyes, mouth, and mic will keep moving based on the given sound)



Source Codes:

```
/*
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*/

let song, button;
var amp; // Amplitude
var historyAmp = [];

// For blinking eyes
var check=true;
var a = 0;
var j = 120;
var k = 1;
```

```
// Load the song (preparing)
function preload()
{
  BG = loadImage("twilight_full.jpg");
  song = loadSound("Always_With_Me.mp3");
  microbug = loadImage("microbug.png");
}

function setup()
{
  createCanvas(400, 600);
  createBtn();
  //Create an obj, Listening to the song
  amp = new p5.Amplitude();
}

function draw()
{
  var c;
  background(BG);
  noStroke();

  // Body
  c = color(0);
  fill(c);
  rect(47,350,298,300);

  // Hair
  c = color(0);
  fill(c);
  ellipse(195, 300, 310, 430);

  // Face
  c = color(237, 231, 222);
  fill(c);
  ellipse(195, 300, 250, 350);
  c = color(251, 245, 236);
  fill(c);
  ellipse(195, 300, 230, 350);
```

```

// Purple eyes
c = color(171, 141, 169);
fill(c);
ellipse(260, 210, 25, 45); // above
ellipse(130, 210, 25, 45);
ellipse(260, 350, 35, 80); // below
ellipse(130, 350, 35, 80);
c = color(0);
fill(c);

// ----- ANIMATE EYES ----- //
// Change the mode to DEGREES
angleMode(DEGREES);
arc(130, 260, 35, 25, 270+a, 270-a, CHORD);
arc(260, 260, 35, 25, 270+a, 270-a, CHORD);
// Closing eyes
if((check == true) && (a <= j))
{
    a += 3;
}
// Opening eyes
else if (a > k)
{
    // Keep doing until the condition is true
    check = false;
    a--;
}
// Go back to the origin again (a == 1)
else if (a == k)
{
    check = true;
}
// ----- ANIMATE EYES ----- //

ellipse(130, 290, 35, 10); // small eyes
ellipse(260, 290, 35, 10);
// Mouth
stroke(0);
strokeWeight(5);
fill(c);

```

```

getHistory();

// Background
noStroke();
c = color(255);
fill(c);

// Microbug
microbug.resize(140, 200);
}

// ----- CREATING BUTTON ----- //
function createBtn() {
  button = createButton(
    "<img style='width: 50px' src='https://i.imgur.com/kWCTvXJ.png' />");
  button.mousePressed(playSong);
  button.style("background", 0);
  button.style("border", 0);
  button.position(160, 600);
}

// ----- CREATING BUTTON ----- //

// ----- ANIMATE MOUTH AND MICROBUG ----- //
function getHistory() {
  var vol = amp.getLevel(); // 0 - 1
  ellipse(width / 2, 400, 100, vol * 200);
  image(microbug, 150, 430+(vol*100));
}

// ----- ANIMATE MOUTH AND MICROBUG ----- //

// ----- START AND STOP BUTTON ----- //
function playSong() {
  // Stop
  if (!song.isPlaying()) {
    song.play();
    // By default is 0-1 (but you can set any new value
    song.setVolume(1);
    button.html( // Stop button
"<img style='width: 50px' src='https://i.imgur.com/5moWJVX.png' />");
  }
}

```

```
// Play
else {
    song.pause();
    // Stop button
    button.html(
        "<img style='width: 50px' src='https://i.imgur.com/kWCTvXJ.png' />");
    }
}
// ----- START AND STOP BUTTON ----- //
```