```
import processing.sound.*;
SoundFile file;

import processing.serial.*;

Serial myPort;
float potValue = 0;

int[][] state = new int[9][9];

PImage img1;
PImage img2;
PImage img3;
PImage img4;
PImage img5;
PImage img6;
PImage img7;
PImage img8;
PImage img9;
PImage img10;
PImage img11;
PImage img12;
PImage img13;
PImage img14;
PImage img15;
PImage img16;
PImage img17;
PImage img18;
PImage img19;
PImage img20;
PImage img21;
PImage img22;
PImage img23;
PImage img24;
PImage img25;
PImage img26;
PImage img27;
PImage img28;
PImage img29;
PImage img30;
PImage img31;
PImage img32;
PImage img33;
PImage img34;
PImage img35;
PImage img36;
PImage img37;
PImage img38;
PImage img39;
PImage img40;
PImage img41;
PImage img42;
PImage img43;
PImage img44;
PImage img45;
PImage img46;
PImage img47;
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PImage img48;
PImage img49;
PImage img50;
PImage img51;
PImage img52;
PImage img53;
PImage img54;
PImage img55;
PImage img56;
PImage img57;
PImage img58;
PImage img59;
PImage img60;

void setup() {
 size(900, 900);

 for(int x = 0; x < state.length; x++){
 for(int y = 0; y < state.length; y++){
  state[x][y] = int(random(0,6));
 }}

 myPort = new Serial(this, "/dev/cu.usbmodem14101", 9600);
 myPort.bufferUntil('\n');

 img1 = loadImage("data/riverphotos/River1.jpg");
 img2 = loadImage("data/riverphotos/River2.jpg");
 img3 = loadImage("data/riverphotos/River3.jpg");
 img4 = loadImage("data/riverphotos/River4.jpg");
 img5 = loadImage("data/riverphotos/River5.jpg");
 img6 = loadImage("data/riverphotos/River6.jpg");
 img7 = loadImage("data/riverphotos/River7.jpg");
 img8 = loadImage("data/riverphotos/River8.jpg");
 img9 = loadImage("data/riverphotos/River9.jpg");
 img10 = loadImage("data/riverphotos/River10.jpg");

 img11 = loadImage("data/seaphotos/sea1.jpg");
 img12 = loadImage("data/seaphotos/sea2.jpg");
 img13 = loadImage("data/seaphotos/sea3.jpg");
 img14 = loadImage("data/seaphotos/sea4.jpg");
 img15 = loadImage("data/seaphotos/sea5.jpg");
 img16 = loadImage("data/seaphotos/sea6.jpg");
 img17 = loadImage("data/seaphotos/sea7.jpg");
 img18 = loadImage("data/seaphotos/sea8.jpg");
 img19 = loadImage("data/seaphotos/sea9.jpg");
 img20 = loadImage("data/seaphotos/sea10.jpg");

  img21 = loadImage("data/hillphotos/hill1.jpg");
 img22 = loadImage("data/hillphotos/hill2.jpg");
 img23 = loadImage("data/hillphotos/hill3.jpg");
 img24 = loadImage("data/hillphotos/hill4.jpg");
 img25 = loadImage("data/hillphotos/hill5.jpg");
 img26 = loadImage("data/hillphotos/hill6.jpg");
 img27 = loadImage("data/hillphotos/hill7.jpg");
 img28 = loadImage("data/hillphotos/hill8.jpg");
 img29 = loadImage("data/hillphotos/hill9.jpg");
 img30 = loadImage("data/hillphotos/hill10.jpg");
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  img31 = loadImage("data/fishphotos/fish1.jpg");
  img32 = loadImage("data/fishphotos/fish2.jpg");
  img33 = loadImage("data/fishphotos/fish3.jpg");
  img34 = loadImage("data/fishphotos/fish4.jpg");
  img35 = loadImage("data/fishphotos/fish5.jpg");
  img36 = loadImage("data/fishphotos/fish6.jpg");
  img37 = loadImage("data/fishphotos/fish7.jpg");
  img38 = loadImage("data/fishphotos/fish8.jpg");
  img39 = loadImage("data/fishphotos/fish9.jpg");
  img40 = loadImage("data/fishphotos/fish10.jpg");

  img41 = loadImage("data/cliffphotos/cliff1.jpg");
  img42 = loadImage("data/cliffphotos/cliff2.jpg");
  img43 = loadImage("data/cliffphotos/cliff3.jpg");
  img44 = loadImage("data/cliffphotos/cliff4.jpg");
  img45 = loadImage("data/cliffphotos/cliff5.jpg");
  img46 = loadImage("data/cliffphotos/cliff6.jpg");
  img47 = loadImage("data/cliffphotos/cliff7.jpg");
  img48 = loadImage("data/cliffphotos/cliff8.jpg");
  img49 = loadImage("data/cliffphotos/cliff9.jpg");
  img50 = loadImage("data/cliffphotos/cliff10.jpg");

  img51 = loadImage("data/birdsphotos/birds1.jpg");
  img52 = loadImage("data/birdsphotos/birds2.jpg");
  img53 = loadImage("data/birdsphotos/birds3.jpg");
  img54 = loadImage("data/birdsphotos/birds4.jpg");
  img55 = loadImage("data/birdsphotos/birds5.jpg");
  img56 = loadImage("data/birdsphotos/birds6.jpg");
  img57 = loadImage("data/birdsphotos/birds7.jpg");
  img58 = loadImage("data/birdsphotos/birds8.jpg");
  img59 = loadImage("data/birdsphotos/birds9.jpg");
  img60 = loadImage("data/birdsphotos/birds10.jpg");

  file = new SoundFile(this, "data/sounds/sound1.mp3");
  file.play();
}

void serialEvent(Serial myPort) {
  String val = myPort.readStringUntil('\n');
  if (val != null) {
    potValue = float(trim(val));
  }
}

void draw() {
  float diameter = map(potValue, 0, 1023, 0, 1000);
  //println(diameter);

  ellipseMode(CENTER);
  background(100);


  float tileW = width / state.length;
  float tileH = height / state.length;

  for (int x = 0; x < state.length; x++) {
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   for (int y = 0; y < state.length; y++) {
     pushMatrix();
     translate(x * tileW, y * tileH);
if (state[x][y] == 0) {
     if (diameter >= 900) {
  image(img1, 0, 0, tileW, tileH);

} else if (diameter >= 800) {
  image(img2, 0, 0, tileW, tileH);
} else if (diameter >= 700) {
  image(img3, 0, 0, tileW, tileH);
} else if (diameter >= 600) {
  image(img4, 0, 0, tileW, tileH);
} else if (diameter >= 500) {
  image(img5, 0, 0, tileW, tileH);
} else if (diameter >= 400) {
  image(img6, 0, 0, tileW, tileH);
} else if (diameter >= 300) {
  image(img7, 0, 0, tileW, tileH);
} else if (diameter >= 200) {
  image(img8, 0, 0, tileW, tileH);
} else if (diameter >= 1.0) {
  image(img9, 0, 0, tileW, tileH);
} else if (diameter == 0.0) {
  image(img10, 0, 0, tileW, tileH);
}
}

if (state[x][y] == 1) {
     if (diameter >= 900) {
  image(img11, 0, 0, tileW, tileH);
} else if (diameter >= 800) {
  image(img12, 0, 0, tileW, tileH);
} else if (diameter >= 700) {
  image(img13, 0, 0, tileW, tileH);
} else if (diameter >= 600) {
  image(img14, 0, 0, tileW, tileH);
} else if (diameter >= 500) {
  image(img15, 0, 0, tileW, tileH);
} else if (diameter >= 400) {
  image(img16, 0, 0, tileW, tileH);
} else if (diameter >= 300) {
  image(img17, 0, 0, tileW, tileH);
} else if (diameter >= 200) {
  image(img18, 0, 0, tileW, tileH);
} else if (diameter >= 1.0) {
  image(img19, 0, 0, tileW, tileH);
} else if (diameter == 0.0) {
  image(img20, 0, 0, tileW, tileH);
}
}

if (state[x][y] == 2) {
     if (diameter >= 900) {
  image(img21, 0, 0, tileW, tileH);
} else if (diameter >= 800) {
  image(img22, 0, 0, tileW, tileH);
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} else if (diameter >= 700) {
  image(img23, 0, 0, tileW, tileH);
} else if (diameter >= 600) {
  image(img24, 0, 0, tileW, tileH);
} else if (diameter >= 500) {
  image(img25, 0, 0, tileW, tileH);
} else if (diameter >= 400) {
  image(img26, 0, 0, tileW, tileH);
} else if (diameter >= 300) {
  image(img27, 0, 0, tileW, tileH);
} else if (diameter >= 200) {
  image(img28, 0, 0, tileW, tileH);
} else if (diameter >= 1.0) {
  image(img29, 0, 0, tileW, tileH);
} else if (diameter == 0.0) {
  image(img30, 0, 0, tileW, tileH);
}
}

if (state[x][y] == 3) {
    if (diameter >= 900) {
  image(img31, 0, 0, tileW, tileH);
} else if (diameter >= 800) {
  image(img32, 0, 0, tileW, tileH);
} else if (diameter >= 700) {
  image(img33, 0, 0, tileW, tileH);
} else if (diameter >= 600) {
  image(img34, 0, 0, tileW, tileH);
} else if (diameter >= 500) {
  image(img35, 0, 0, tileW, tileH);
} else if (diameter >= 400) {
  image(img36, 0, 0, tileW, tileH);
} else if (diameter >= 300) {
  image(img37, 0, 0, tileW, tileH);
} else if (diameter >= 200) {
  image(img38, 0, 0, tileW, tileH);
} else if (diameter >= 1.0) {
  image(img39, 0, 0, tileW, tileH);
} else if (diameter == 0.0) {
  image(img40, 0, 0, tileW, tileH);
}
}

if (state[x][y] == 4) {
    if (diameter >= 900) {
  image(img41, 0, 0, tileW, tileH);
} else if (diameter >= 800) {
  image(img42, 0, 0, tileW, tileH);
} else if (diameter >= 700) {
  image(img43, 0, 0, tileW, tileH);
} else if (diameter >= 600) {
  image(img44, 0, 0, tileW, tileH);
} else if (diameter >= 500) {
  image(img45, 0, 0, tileW, tileH);
} else if (diameter >= 400) {
  image(img46, 0, 0, tileW, tileH);
} else if (diameter >= 300) {
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  image(img47, 0, 0, tileW, tileH);
} else if (diameter >= 200) {
  image(img48, 0, 0, tileW, tileH);
} else if (diameter >= 1.0) {
  image(img49, 0, 0, tileW, tileH);
} else if (diameter == 0.0) {
  image(img50, 0, 0, tileW, tileH);
}
}

if (state[x][y] == 5) {
    if (diameter >= 900) {
  image(img51, 0, 0, tileW, tileH);
} else if (diameter >= 800) {
  image(img52, 0, 0, tileW, tileH);
} else if (diameter >= 700) {
  image(img53, 0, 0, tileW, tileH);
} else if (diameter >= 600) {
  image(img54, 0, 0, tileW, tileH);
} else if (diameter >= 500) {
  image(img55, 0, 0, tileW, tileH);
} else if (diameter >= 400) {
  image(img56, 0, 0, tileW, tileH);
} else if (diameter >= 300) {
  image(img57, 0, 0, tileW, tileH);
} else if (diameter >= 200) {
  image(img58, 0, 0, tileW, tileH);
} else if (diameter >= 1.0) {
  image(img59, 0, 0, tileW, tileH);
} else if (diameter == 0.0) {
  image(img60, 0, 0, tileW, tileH);
}
}

    popMatrix();
   }
  }
}
```