

Código del programa.

```
int PIEZO = A1;
int analogPin=A0;

int BUTTON_C = 0;
int BUTTON_D = 1;
int BUTTON_E = 2;
int BUTTON_F = 3;
int BUTTON_G = 4;
int BUTTON_A = 5;
int BUTTON_B = 6;

int BUTTON_C2 = 7;
int BUTTON_D2 = 8;
int BUTTON_E2 = 9;
int BUTTON_F2 = 10;
int BUTTON_G2 = 11;
int BUTTON_A2 = 12;
int BUTTON_B2 = 13;

int potValor = 0;
int volValor = 0;
int speed =50 ;

void setup()
{
  Serial.begin(4800);
  for(int i = 0; i<=13;i++)
  {
    pinMode(i, INPUT_PULLUP);
  }
  pinMode(PIEZO, OUTPUT);
  pinMode(analogPin, INPUT);
}

void bep(int note, int time) {
  potValor = analogRead(analogPin);

  volValor = map(potValor,0,1023,0,note);
  Serial.println(volValor);
  tone(PIEZO, volValor, time);
  delay(50);
}

void loop()
{
  while(digitalRead(BUTTON_C) == LOW)
  {
    tone(PIEZO, 262, 100);
    bep(200, speed);
  }
}
```

```

    }
    while(digitalRead(BUTTON_D) == LOW)
    {
        tone(PIEZO, 294, 100);
        bep(250, speed);
    }

    while(digitalRead(BUTTON_E) == LOW)
    {
        tone(PIEZO, 330, 100);
        bep(300, speed);
    }

    while(digitalRead(BUTTON_F) == LOW)
    {
        tone(PIEZO, 349, 100);
        bep(350, speed);
    }

    while(digitalRead(BUTTON_G) == LOW)
    {
        tone(PIEZO, 392, 100);
        bep(400, speed);
    }

    while(digitalRead(BUTTON_A) == LOW)
    {
        tone(PIEZO, 440, 100);
        bep(450, speed);
    }

    while(digitalRead(BUTTON_B) == LOW)
    {
        tone(PIEZO, 494, 100);
        bep(500, speed);
    }


    while(digitalRead(BUTTON_C2) == LOW)
    {
        tone(PIEZO, 523, 100);
        bep(550, speed);
    }
    while(digitalRead(BUTTON_D2) == LOW)
    {
        tone(PIEZO, 552, 100);
        bep(600, speed);
    }

    while(digitalRead(BUTTON_E2) == LOW)
    {
        tone(PIEZO, 581, 100);
        bep(650, speed);
    }

```

```

    }

    while(digitalRead(BUTTON_F2) == LOW)
    {
        tone(PIEZO, 610, 100);
        bep(700, speed);
    }

    while(digitalRead(BUTTON_G2) == LOW)
    {
        tone(PIEZO, 639, 100);
        bep(750, speed);
    }

    while(digitalRead(BUTTON_A2) == LOW)
    {
        tone(PIEZO, 668, 100);
        bep(800, speed);
    }

    while(digitalRead(BUTTON_B2) == LOW)
    {
        tone(PIEZO, 697, 100);
        bep(850, speed);
    }

    noTone(PIEZO);

}

```

```

int PIEZO = A1;
int analogPin=A0;

int BUTTON_C = 0;
int BUTTON_D = 1;
int BUTTON_E = 2;
int BUTTON_F = 3;
int BUTTON_G = 4;
int BUTTON_A = 5;
int BUTTON_B = 6;

int BUTTON_C2 = 7;
int BUTTON_D2 = 8;
int BUTTON_E2 = 9;
int BUTTON_F2 = 10;
int BUTTON_G2 = 11;
int BUTTON_A2 = 12;
int BUTTON_B2 = 13;

```

```

int potValor = 0;
int volValor = 0;
int speed = 100 ;

void setup()
{
  Serial.begin(4800);
  for(int i = 0; i<=13;i++)
  {
    pinMode(i, INPUT_PULLUP);
  }
  pinMode(PIEZO, OUTPUT);
  pinMode(analogPin, INPUT);
}

void bep(int note, int time) {
  potValor = analogRead(analogPin);

  volValor = map(potValor,0,1023,0,note);
  Serial.println(volValor);
  tone(PIEZO, volValor, time);
  delay(25);
}

void loop()
{
  while(digitalRead(BUTTON_C) == LOW)
  {
    bep(262, speed);
  }
  while(digitalRead(BUTTON_D) == LOW)
  {
    bep(294, speed);
  }

  while(digitalRead(BUTTON_E) == LOW)
  {
    bep(330, speed);
  }

  while(digitalRead(BUTTON_F) == LOW)
  {
    bep(349, speed);
  }

  while(digitalRead(BUTTON_G) == LOW)
  {
    bep(392, speed);
  }
}

```

```

while(digitalRead(BUTTON_A) == LOW)
{
    bep(440, speed);
}

while(digitalRead(BUTTON_B) == LOW)
{
    bep(494, speed);
}


while(digitalRead(BUTTON_C2) == LOW)
{
    bep(523, speed);
}
while(digitalRead(BUTTON_D2) == LOW)
{
    bep(587, speed);
}

while(digitalRead(BUTTON_E2) == LOW)
{
    bep(659, speed);
}

while(digitalRead(BUTTON_F2) == LOW)
{
    bep(698, speed);
}

while(digitalRead(BUTTON_G2) == LOW)
{
    bep(767, speed);
}

while(digitalRead(BUTTON_A2) == LOW)
{
    bep(810, speed);
}

while(digitalRead(BUTTON_B2) == LOW)
{
    bep(928, speed);
}

noTone(PIEZO);

}

```