```
/*
  Pitch follower
  Plays a pitch that changes based on a changing analog input
  circuit:
  - 8 ohm speaker on digital pin 9
  - photoresistor on analog 0 to 5V
  - 4.7 kilohm resistor on analog 0 to around
  created 21 Jan 2010
  modified 31 May 2012
  by Tom Igoe, with suggestion from Michael Flynn
  This example code is in the public domain.
 http://www.arduino.cc/en/Tutorial/Tone2
*/
void setup() {
  // initialize serial communications (for debugging only):
  Serial.begin(9600);
}
void loop() {
  // read the sensor:
  int sensorReading = analogRead(A0);
  // print the sensor reading so you know its range
  Serial.println(sensorReading);
  // map the analog input range (in this case, 400 - 1000 from the photoresistor)
  // to the output pitch range (120 - 1500Hz)
  // change the minimum and maximum input numbers below depending on the range
  // your sensor's giving:
  int thisPitch = map(sensorReading, 400, 1000, 120, 1500);
  // play the pitch:
  tone(9, thisPitch, 10);
                   // delay in between reads for stability
  delay(1);
}
```