Problem formulation

The project’s purpose is to generate different sound pitches basing on the users movement.  
The shorter the distance is, the higher the sound should be. The user creates “music” by increasing and decreasing the distance between a sensor and an object.

The subproblems are defined as follows:

1. How to generate sound?
2. How to measure the distance?
3. How to update the sound pitch, when the distance is changing?
4. How to connect the components to the Arduino board?