

Dear annotators,

We need your help for annotating the filtered chest sound records. Two pools (folders) are available for the heart and lung sounds respectively. In each pool you are supposed to listen to each of the 10-sec records and annotate them. For the heart pool, the annotation includes grading the records from 1 to 5 according to their quality (Table 1) and counting the number of detectable beats. Similarly, For breathing pool the records should be annotated based on their quality (Table 2) and also the number of detectable breathing periods in each record (each breathing period consists of one inhale and one exhale).

The results of annotations should be put into the excel sheet provided in each folder for this purpose. The rule of quality grading are described in the following tables for both the heart and lung pools. However, we would be happy to have your comments and suggestions to improve the annotation rules. To avoid the effect of different conditions on your annotation, please consider the following items during your annotation:

1. Do the annotation in a quiet place.
2. Use Audacity software and a high-quality earphone for listening to the records.
3. Annotate all the signals in each pool in the same session without time gaps between them.
4. You are allowed to repeat the listening of each record.
5. Grade the sounds right after listening.
6. The loudness of the sounds does not matter, so you can adjust it for each record to get the proper quality.
7. Write the grades in the annotation excel sheet provided in each pool folder.

Table 1: Heart sounds quality annotation rule

label	description
1	Very poor quality – only noise, no detectable heart beats
2	Poor quality – mostly noise with some detectable heart sound (s1 usually)
3	Borderline quality – heard heart sound contaminated by noise, difficult to interpret
4	Good quality – easily heard heart sound with weak noise, interpretable
5	Excellent quality – clear heart sound with little to no noise

Table2: Breathing sounds quality annotation rule

label	description
1	Very poor quality – only "noise or heart sound", no detectable "breathing" periods
2	Poor quality – dominant "noise or heart sound", and weak "breathing sound" without diagnostic value
3	Borderline quality – heard "breathing" contaminated by "noise or heart sound", difficult to interpret
4	Good quality – dominant "breathing" sound with weak "noise or heart sound", interpretable
5	Excellent quality – clear and pure "breathing" sound, with little to no "heart sound or noise"