Acoustic Variometer

A variometer tells your climb and descent rates in real-time, which is critical information when flying. At high altitude, 1000 meter over the ground level, a pilot can't sense if he is ascending or descending so a dedicated equipment is mandatory. I made this open-source project based on Arduino Mini pro v3. The altitude is based on atmospheric pressure so I use a super sensitive barometric sensor that is capable to read the slightest changes in the air with is corelated with the altitude. The results are generated as audio feedback with very low latency delay that changes in tone and frequency according to the situation, the tone preferences can be changed in code that is written in C#. The device is powered on a 350mah li-ion battery that is enough for 2 weeks of using before recharging.