

## **Voice Separation with tiny ML on the edge**

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With the recent advances in many areas of tiny ML several use cases where tiny ML is an absolute requirement has emerged. Hearing devices is an area where tiny ML holds the potential to radically transform the functionality of a 1 mW always on device. People with hearing problems can benefit from hearing device processing that separates competing voices into individual channels followed by resynthesizing of the auditory scene with spatial augmentation. The first successful segregation enhancement of competing voices required deep neural networks to achieve enough separation for the spatial augmentation to enhance segregation. It is furthermore a requirement that the latency of processing is below 20 ms – preferably less – and thus the processing must take place at the ear level without uplink and downlink latencies. Thus, for voice separation to work on the ears of people with hearing problems tiny ML is a necessity.