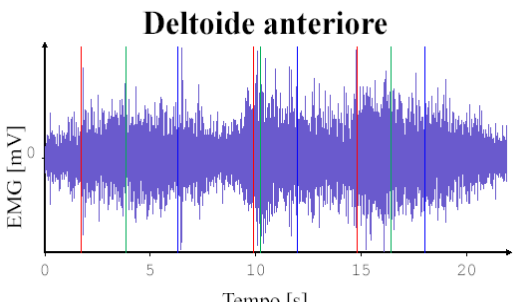
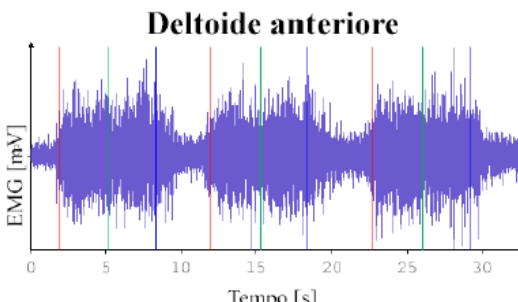
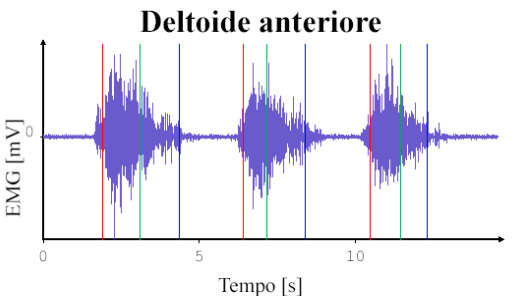


Tone Reduction after Training with ReoGo- Preliminary Results

Motor task composed of “target reaching” and “hand to mouth” movements has been evaluated in patients with hemiplegia after stroke or brain injury. EMG data have also been acquired from some healthy people to serve as a reference. Preliminary results of this study have shown that muscles activity patterns could be correlated to the effects of the treatment with the ReoGo robot, in particular the anterior deltoid activity.

Presented in the table below are the EMG recordings from the deltoide anteriore muscle of the person with hemiplegia following stroke, 10 years after the event before the treatment with the ReoGo system and after one month treatment.

Activation pattern before ReoGo Treatment	Activation pattern after 1 month of ReoGo Treatment	Normal pattern in healthy person
 <p style="text-align: center;">Deltoide anteriore</p> <p>EMG [mV]</p> <p>Tempo [s]</p>	 <p style="text-align: center;">Deltoide anteriore</p> <p>EMG [mV]</p> <p>Tempo [s]</p>	 <p style="text-align: center;">Deltoide anteriore</p> <p>EMG [mV]</p> <p>Tempo [s]</p>
<p>There is a continuous activation of the muscle also during resting activity in the chronic post- stroke patient</p>	<p>After treatment there is visible reduction of the muscle tone during the off periods</p>	<p>On-off activity of the muscle during reaching and hand-to-mouth phases can be clearly seen in the figure above.</p>

After 1 month of treatment, the patient has improved the motion control (as presented in the table above): the on- off pattern is more similar to the normal one (there are clear activation and rest periods). The improvement is evident.