

# VTDEMO: Vocal Tract Synthesis Demonstration Vs1.0

About Download Play example Monitor audio Reset Tract size Full screen

The screenshot shows the VTDEMO web application interface. At the top, there is a navigation bar with buttons for 'About', 'Download', 'Play example', 'Monitor audio', 'Reset', 'Tract size', and 'Full screen'. Below this is a control panel with two main sections: 'Vocal tract controls' and 'Vocal tract sagittal section'.

**Vocal tract controls:** This section contains 15 sliders for adjusting various parameters:

- Jaw Position: Open to Closed
- Tongue Position: Front to Back
- Tongue Shape: Flat to Bunched
- Tongue Expansion: Narrow to Wide
- Lip Aperture: Closed to Open
- Lip Protrusion: Least to Most
- Larynx Height: Low to High
- Glottal Aperture: Open to Closed
- Fundamental Frequency: Low to High
- Soft palate (velum) opening: Closed to Open

**Vocal tract sagittal section:** This section displays a sagittal cross-section of the vocal tract with labels for 'hard palate', 'soft palate', 'alveolar ridge', 'lips', 'pharynx', and 'larynx'. A scale bar indicates 1cm. Below the sagittal section is a spectrum plot showing Amplitude (dB) versus Frequency (Hz). The plot displays a series of peaks representing formants, with the following frequencies labeled: 455, 1694, 2471, 3599, 4142, and 5246 Hz.

Annotations with blue arrows point to various elements:

- 'About Download Play example Monitor audio Reset Tract size Full screen' points to the top navigation bar.
- 'Vocal tract shape controls' points to the 'Vocal tract controls' section.
- 'Scale' points to the 1cm scale bar in the sagittal section.
- 'Spectrum, Filter response and Formants' points to the spectrum plot.

## Keyboard commands:

[SPACE] Play example

VTDEMO contains code created by Shinji Maeda, and distributed as part of VTCALCS (<http://sites.bu.edu/guentherlab/software/vtcalcs-for-matlab/>)