# TrulyHandsfree™ Voice Control
# Consumer Electronics Speech Recognition
## *Triggers & Commands*

Sensory offers a complete suite of solutions to voice activate your application. Voice user interfaces (VUI) can be integrated to make exciting, state-of-the-art products by adding speech prompts and speech recognition command sets. **TrulyHandsfree™ Voice Control** is the newest VUI offering from Sensory. It's a unique and powerful way to control a product without touching it.

**TrulyHandsfree™ Voice Control** can be added to enable products that wakeup and respond when their name is called, so no button pressing or manual manipulation is needed for implementing voice control. This technology is extremely robust to noise and designed to prevent false triggers during normal room noise and conversations. The trigger name may be the product brand to help build customer loyalty and brand awareness. Voice triggers are increasingly popular for in-car use to aid in safety and for in-home use for convenience.

**TrulyHandsfree™ Voice Control** uses Sensory's unique speaker independent phrase spotting technology, which allows a trigger phrase to be spotted when embedded in a longer phrase, and in high levels of noise. Sensory hand crafts these triggers to exacting standards, and the speaker independence allows them to work right out of the box with no user training. The top level menu may include multiple spotted phrases which combine the trigger and command functions to remove one layer of interaction and allow the user to move directly to product control. These technologies are deployed in Sensory's FluentChip SDK's targeting Sensory's line of Speech Recognition Controller chips.

Languages currently available include (with more in development):

- US, UK and Australian English
- EU French and Canadian French
- US and EU Spanish
- Italian
- German
- Mandarin
- Japanese
- Korean

### *Voice Recognition System Requirements*

- ~20MIPS for triggers
- ~50MIPS for a command set
  (depending on the number of commands)
- Code/Const storage
  - ~30KBytes for a trigger
  - ~90KBytes for commands
    (depending on the number of commands)
- RAM
  - ~6Kbytes for a trigger
  - ~23Kbytes for a command set
    (depending on the number of commands)
- One 16-bit ADC channel with a 16KHz sample rate and a preamplifier with electret microphone
- 35mA/110mW for triggers



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