

Síntesis de voz con festival.

```
jenny@jenny-VirtualBox:~/Escriptorio/Robotics/MobileRobots-2020-2-for-Covid19$ so
urce catkin_ws/devel/setup.bash
jenny@jenny-VirtualBox:~/Escriptorio/Robotics/MobileRobots-2020-2-for-Covid19$ ro
srun speech_syn speech_test.py "my first synthesized voice"
INITIALIZING SPEECH SYNTHESIS TEST...
Sending text to say: my first synthesized voice
jenny@jenny-VirtualBox:~/Escriptorio/Robotics/MobileRobots-2020-2-for-Covid19$

jenny@jenny-VirtualBox:~/Escriptorio/Robotics/MobileRobots-2020-2-for-Covid19$ ros1
roslaunch
roslaunch roslaunch-deps roslocate
roslaunch-complete roslaunch-logs ros1s
jenny@jenny-VirtualBox:~/Escriptorio/Robotics/MobileRobots-2020-2-for-Covid19$ source cat
kin_ws/devel/setup.bash
jenny@jenny-VirtualBox:~/Escriptorio/Robotics/MobileRobots-2020-2-for-Covid19$ roslaunch
bring_up_speech_test.launch
... logging to /home/jenny/.ros/log/955c754e-89ca-11ea-80f4-0800278b17f6/roslaunch-jenny
-VirtualBox-15876.log
Checking log directory for disk usage. This may take awhile.
Press Ctrl-C to interrupt
Done checking log file disk usage. Usage is <1GB.

started roslaunch server http://jenny-VirtualBox:40349/

SUMMARY
=====

PARAMETERS
 * /rostdistro: knetic
 * /rosversion: 1.12.14

NODES
```

```
jenny@jenny-VirtualBox:~/Escritorio/Robotics/MobileRobots-2020-2-for-19$ sudo apt-get install festival festvox-ellpc11k
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias
Leyendo la información de estado... Hecho
festival ya está en su versión más reciente (1:2.4-release-2).
fijado festival como instalado manualmente.
El paquete indicado a continuación se instaló de forma automática y ya no es necesario.
  snaped-login-service
Utilice «sudo apt autoremove» para eliminarlo.
Se instalarán los siguientes paquetes NUEVOS:
  festvox-ellpc11k
0 actualizados, 1 nuevos se instalarán, 0 para eliminar y 1 no actualizados.
Se necesita descargar 1 304 kB de archivos.
Se utilizarán 2 125 kB de espacio de disco adicional después de esta operación.
¿Desea continuar? [S/n] s
Des:1 http://mx.archive.ubuntu.com/ubuntu/xenial/multiverse amd64 festvox-ellpc11k all 1.4.0-4 [1 304 kB]
Descargados 1 304 kB en 2s (444 kB/s)
Seleccionando el paquete festvox-ellpc11k previamente no seleccionado.
(Leyendo la base de datos ... 463766 ficheros o directorios instalados actualmente.)
Preparando para desempaquetar .../festvox-ellpc11k_1.4.0-4_all.deb ...
Desempaquetando festvox-ellpc11k (1.4.0-4) ...
Configurando festvox-ellpc11k (1.4.0-4) ...
jenny@jenny-VirtualBox:~/Escritorio/Robotics/MobileRobots-2020-2-for-Covid19$
```

```
Jenny@jenny-Virtuoso:~$ sudo apt-get install festvox-hi-nsk
[sudo] password for jenny:
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias
Leyendo la información de estado... Hecho
El paquete indicado a continuación se instaló de forma automática y ya no es necesario.
  smand-login-service
Utilice 'sudo apt autoremove' para eliminarlo.
Se instalarán los siguientes paquetes adicionales:
  festival-hi
Se instalarán los siguientes paquetes NUEVOS:
  festvox-hi festvox-hi-nsk
0 actualizados, 2 nuevos se instalarán, 0 para eliminar y 1 no actualizados.
Se necesita descargar 7 559 kb de archivos.
Se utilizarán 12,3 MB de espacio de disco adicional después de esta operación.
¿Desea continuar? [S/n]
```

```
jenny@jenny-VirtualBox:~$ ls /usr/share/festival/voices/english/
kal_diphone  ked_diphone
jenny@jenny-VirtualBox:~$
```

Modificar el archivo `catkin_ws/src/speech_syn/scripts/speech_test.py` y cambiar la voz a utilizar en el mensaje `SoundRequest`.

```
#!/usr/bin/env python

import sys
import rospy
from sound_play.msg import SoundRequest

def main(text_to_say):
    print "INITIALIZING SPEECH SYNTHESIS TEST..."
    rospy.init_node("speech_syn")
    pub_speech = rospy.Publisher("robot_sound", SoundRequest, queue_size=10)
    loop = rospy.Rate(2)

    msg_speech = SoundRequest()
    msg_speech.sound = -3
    msg_speech.command = 1
    msg_speech.volume = 1.0
    msg_speech.arg2 = "voice_ked_diphone"
    msg_speech.arg = text_to_say

    loop.sleep()
    print "Sending text to say: " + text_to_say
    pub_speech.publish(msg_speech)

if __name__ == "__main__":
    text_to_say = "hello"
    if len(sys.argv) > 1:
        text_to_say = sys.argv[1]
    main(text_to_say)

#!/usr/bin/env python

import sys
import rospy
from sound_play.msg import SoundRequest

def main(text_to_say):
    print "INITIALIZING SPEECH SYNTHESIS TEST..."
    rospy.init_node("speech_syn")
    pub_speech = rospy.Publisher("robot_sound", SoundRequest, queue_size=10)
    loop = rospy.Rate(2)

    msg_speech = SoundRequest()
    msg_speech.sound = -3
    msg_speech.command = 1
    msg_speech.volume = 1.0
    msg_speech.arg2 = "voice_msu_ru_nsh_clunits"
    msg_speech.arg = text_to_say

    loop.sleep()
    print "Sending text to say: " + text_to_say
    pub_speech.publish(msg_speech)

if __name__ == "__main__":
    text_to_say = "hello"
    if len(sys.argv) > 1:
        text_to_say = sys.argv[1]
    main(text_to_say)
```

El nombre de la voz se compone de voice más el nombre que aparece en la carpeta voices/english

voice_el_diphone

```
auto-starting new master
process[master]: started with pid [7598]
ROS_MASTER_URI=http://localhost:11311

setting /run_id to a6bed506-8a57-11ea-a2fe-0800278b17f6
process[rosout-1]: started with pid [7611]
started core service [/rosout]
process[sound_play-2]: started with pid [7625]
[INFO] [1588191967.689979]: sound_play node is ready to play sound
sound: -3
command: 1
volume: 1.0
arg: "Este es el tercer intento, es muy divertido"
arg2: "voice_kal_diphone"
sound: -3
command: 1
volume: 1.0
arg: "Este es el tercer intento, es muy divertido"
arg2: "voice_el_diphone"
sound: -3
command: 1
volume: 1.0
arg: "Este es el tercer intento, es muy divertido"
arg2: "voice_el_diphone"
^C[sound_play-2] killing on exit
[rosout-1] killing on exit
[master] killing on exit
shutting down processing monitor...
... shutting down processing monitor complete
done
```

voice_msu_ru_nsh_clunits

```
=====
PARAMETERS
* /rostdistro: kinetic
* /rosversion: 1.12.14

NODES
/
  sound_play (sound_play/soundplay_node.py)

auto-starting new master
process[master]: started with pid [8709]
ROS_MASTER_URI=http://localhost:11311

setting /run_id to 3ecfed78-8a60-11ea-a2fe-0800278b17f6
process[rosout-1]: started with pid [8722]
started core service [/rosout]
process[sound_play-2]: started with pid [8738]
[INFO] [1588195658.893347]: sound_play node is ready to play sound
sound: -3
command: 1
volume: 1.0
arg: "hola, soy jenny"
arg2: "voice_msu_ru_nsh_clunits"
sound: -3
command: 1
volume: 1.0
arg: "hola, soy jenny"
arg2: "voice_msu_ru_nsh_clunits"
```

voice_kal_diphone

```
=====
PARAMETERS
* /rostdistro: kinetic
* /rosversion: 1.12.14

NODES
/
  sound_play (sound_play/soundplay_node.py)

auto-starting new master
process[master]: started with pid [8552]
ROS_MASTER_URI=http://localhost:11311

setting /run_id to e1920182-8a5f-11ea-a2fe-0800278b17f6
process[rosout-1]: started with pid [8565]
started core service [/rosout]
process[sound_play-2]: started with pid [8576]
[INFO] [1588195502.071630]: sound_play node is ready to play sound
sound: -3
command: 1
volume: 1.0
arg: "Este es un mensaje sintetizado"
arg2: "voice_kal_diphone"
^C[sound_play-2] killing on exit
[rosout-1] killing on exit
[master] killing on exit
shutting down processing monitor...
... shutting down processing monitor complete
done
```