

C++ API Description

You can find here a full description of the functions included in the Reeti API.

Types Defined

Name	Type	Description
ReetiPosition	Class	A class containing an instance of the 15 positions of the actuators of the Reeti
ReetiLedColor	Class	A class containing the color of the Reeti' Leds
ReetiSpeaking	Class	A class containing if the reeti is speaking or not
ReetiBookmark	Class	A class containing the last bookmark found
ReetiPlaying	Class	A class containing if the reeti is playing a sequence or not
ErrorCode	Enum	An enumeration of the different Error Codes : <i>OK, TIMEOUT, ERROR</i>
Led	Enum	An enumeration of the different leds : <i>BOTHLED, RIGHTLED, LEFTLED</i>
Camera	Enum	An enumeration of the different cameras : <i>R/ GHTCAM, LEFTCAM</i>

Constructors

Functions	Parameters	Return Value	Description
Reeti	<i>string_ uri</i> : IP adress of the reeti to connect to <i>int_ port</i> : port used (9090 by default do not change it if you are unsure of what you do	<i>none</i>	the constructor used to instantiate a Reeti object

Asynchronous specific functions

Functions	Parameters	Return Value	Description
registerCallbackPosition	<i>positionCallback_cb</i> : a callback function of positionCallback type	<i>void</i>	register a callback in order to get the current position of the Reeti
registerCallbackLedColor	<i>ledColorCallback_cb</i> : a callback function of ledColorCallback type	<i>void</i>	register a callback in order to get the current led Color of the Reeti
registerCallbackIsSpeaking	<i>isSpeakingCallback_cb</i> : a callback function of isSpeakingCallback type	<i>void</i>	register a callback in order to allow to know if the Reeti is currently speaking
registerCallbackBookMark	<i>bookMarkCallback_cb</i> : a callback function of bookMarkCallback type	<i>void</i>	register a callback in order to allow to know when a bookmark is reached while the Reeti is talking
registerCallbackIsPlaying	<i>isPlayingCallback_cb</i> : a callback function of isPlayingCallback type	<i>void</i>	register a callback in order to allow to know if the Reeti is currently playing a sequence
unregisterPosition	<i>void</i>	<i>void</i>	unregister the position callback
unregisterLedColor	<i>void</i>	<i>void</i>	unregister the led position callback
unregisterIsSpeaking	<i>void</i>	<i>void</i>	unregister the callback used to know if the reeti is talking
unregisterBookMark	<i>void</i>	<i>void</i>	unregister the callback to know when a bookmark is reached

unregisterIsPlaying	<i>void</i>	<i>void</i>	unregister the callback used to know if the reeti is playing a sequence
setPoseAsync	<p><i>float_neckRotat</i>: neck rotation position (from 0 to 100)</p> <p><i>float_neckPan</i>: neck pan position (from 0 to 100)</p> <p><i>float_neckTilt</i>: neck tilt position (from 0 to 100)</p> <p><i>float_rightLC</i>: right lips corner position (from 0 to 100)</p> <p><i>float_leftLC</i>: left lips corner position (from 0 to 100)</p> <p><i>float_topLip</i>: top lip position (from 0 to 100)</p> <p><i>float_bottomLip</i>: bottom lip position (from 0 to 100)</p> <p><i>float_rightEyePan</i>: right eye pan position (from 0 to 100)</p> <p><i>float_rightEyeTilt</i>: right eye tilt position (from 0 to 100)</p> <p><i>float_leftEyePan</i>: left eye pan position (from 0 to 100)</p> <p><i>float_leftEyeTilt</i>: left eye tilt position (from 0 to 100)</p> <p><i>float_rightEyeLid</i>: right eye lid position (from 0 to 100)</p> <p><i>float_leftEyeLid</i>: left eye lid position (from 0 to 100)</p> <p><i>float_rightEar</i>: right ear position (from 0 to 100)</p> <p><i>float_leftEar</i>: left ear position (from 0 to 100)</p> <p><i>float_speed</i>: movement speed (from 10 to 300)</p> <p><i>servCallback_cb</i>: a callback function of servCallback type</p> <p><i>int_timeout</i>: delay before the callback function return a timeout error if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	set the position of the 15 actuators of the Reeti asynchronously
setPoseAsync	<p><i>ReetiPosition_position</i>: an instance of ReetiPosition containing the 15 positions</p> <p><i>float_speed</i>: movement speed (from 10 to 300)</p> <p><i>servCallback_cb</i>: a callback function of servCallback type</p> <p><i>int_timeout</i>: delay before the function return false if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	set the position of the 15 actuators of the Reeti asynchronously

takePictureAsync	<p><i>Camera_cam</i>: the camera to use , RIGHTCAM or LEFTCAM</p> <p><i>string_filename</i> : the output filename</p> <p><i>servCallback_cb</i> : a callback function of servCallback type</p> <p><i>int_timeout</i> : delay before the callback function return a timeout error if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	take a picture with one of the reeti's camera and save it under /home/reeti/Pictures asynchronously
recordVideoAsync	<p><i>Camera_cam</i>: the camera to use , RIGHTCAM or LEFTCAM</p> <p><i>string_filename</i> : the output filename</p> <p><i>servCallback_cb</i> : a callback function of servCallback type</p> <p><i>int_timeout</i> : delay before the callback function return a timeout error if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	record a video with one of the reeti's camera and save it under /home/reeti/Videos asynchronously
stopRecordAsync	<p><i>Camera_cam</i>: the camera to use , RIGHTCAM or LEFTCAM</p> <p><i>servCallback_cb</i> : a callback function of servCallback type</p> <p><i>int_timeout</i> : delay before the callback function return a timeout error if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	stop the recording of the vidéo asynchronously
sayAsync	<p><i>string_speech</i> : the text to say</p> <p><i>servCallback_cb</i> : a callback function of servCallback type</p> <p><i>int_timeout</i> : delay before the callback function return a timeout error if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	make the reeti talk asynchronously
sayWithSynchroAsync	<p><i>string_speech</i> : the text to say</p> <p><i>servCallback_cb</i> : a callback function of servCallback type</p> <p><i>int_timeout</i> : delay before the callback function return a timeout error if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	make the reeti talk and move its lips asynchronously
stopSpeechAsync	<p><i>servCallback_cb</i> : a callback function of servCallback type</p> <p><i>int_timeout</i> : delay before the callback function return a timeout error if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	make the reeti stop talking asynchronously
playSequenceAsync	<p><i>string_sequence</i> : the sequence file to play</p> <p><i>servCallback_cb</i> : a callback function of servCallback type</p> <p><i>int_timeout</i> : delay before the callback function return a timeout error if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	make the reeti play the chosen sequence asynchronously

playPoseAsync	<p><i>string_pose</i> : the pose file to play</p> <p><i>servCallback_cb</i> : a callback function of servCallback type</p> <p><i>int_timeout</i> : delay before the callback function return a timeout error if no answer from the reeti (default 15000 ms)</p>	<i>void</i>	make the reeti play the chosen pose asynchronously
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Synchronous specific functions

Functions	Parameters	Return Value	Description
setPoseSync	<p><i>float_neckRotat</i> : neck rotation position (from 0 to 100)</p> <p><i>float_neckPan</i> : neck pan position (from 0 to 100)</p> <p><i>float_neckTilt</i> : neck tilt position (from 0 to 100)</p> <p><i>float_rightLC</i> : right lips corner position (from 0 to 100)</p> <p><i>float_leftLC</i> : left lips corner position (from 0 to 100)</p> <p><i>float_topLip</i> : top lip position (from 0 to 100)</p> <p><i>float_bottomLip</i> : bottom lip position (from 0 to 100)</p> <p><i>float_rightEyePan</i> : right eye pan position (from 0 to 100)</p> <p><i>float_rightEyeTilt</i> : right eye tilt position (from 0 to 100)</p> <p><i>float_leftEyePan</i> : left eye pan position (from 0 to 100)</p> <p><i>float_leftEyeTilt</i> : left eye tilt position (from 0 to 100)</p> <p><i>float_rightEyeLid</i> : right eye lid position (from 0 to 100)</p> <p><i>float_leftEyeLid</i> : left eye lid position (from 0 to 100)</p> <p><i>float_rightEar</i> : right ear position (from 0 to 100)</p> <p><i>float_leftEar</i> : left ear position (from 0 to 100)</p> <p><i>float_speed</i> : movement speed (from 10 to 300)</p> <p><i>int_timeout</i> : delay before the function return false if no answer from the reeti (default 15000 ms)</p>	<p>returns <i>true</i> if the command is correctly performed</p> <p>returns <i>false</i> if the command is not correctly performed or if a timeout happened</p>	set the position of the 15 actuators of the Reeti synchronously
setPoseSync	<p><i>ReetiPosition_position</i> : an instance of ReetiPosition containing the 15 positions</p> <p><i>float_speed</i> : movement speed (from 10 to 300)</p> <p><i>int_timeout</i> : delay before the function return false if no answer from the reeti (default 15000 ms)</p>	<p>returns <i>true</i> if the command is correctly performed</p> <p>returns <i>false</i> if the command is not correctly performed or if a timeout happened</p>	set the position of the 15 actuators of the Reeti synchronously

takePictureSync	<i>Camera_cam</i> : the camera to use , RIGHTCAM or LEFTCAM string _filename : the output filename int _timeout : delay before the function return false if no answer from the reeti (default 15000 ms)	returns <i>true</i> if the command is correctly performed returns <i>false</i> if the command is not correctly performed or if a timeout happened	take a picture with one of the reeti's camera and save it under /home /reeti/Pictures synchronously
recordVideoSync	<i>Camera_cam</i> : the camera to use , RIGHTCAM or LEFTCAM string _filename : the output filename int _timeout : delay before the function return false if no answer from the reeti (default 15000 ms)	returns <i>true</i> if the command is correctly performed returns <i>false</i> if the command is not correctly performed or if a timeout happened	record a video with one of the reeti's camera and save it under /home /reeti/Videos synchronously
stopRecordSync	<i>Camera_cam</i> : the camera to use , RIGHTCAM or LEFTCAM int _timeout : delay before the function return false if no answer from the reeti (default 15000 ms)	returns <i>true</i> if the command is correctly performed returns <i>false</i> if the command is not correctly performed or if a timeout happened	stop the recording of the vidéo synchronously
saySync	<i>string_speech</i> : the text to say int _timeout : delay before the function return false if no answer from the reeti (default 15000 ms)	returns <i>true</i> if the command is correctly performed returns <i>false</i> if the command is not correctly performed or if a timeout happened	make the reeti talk synchronously
sayWithSynchroSync	<i>string_speech</i> : the text to say int _timeout : delay before the function return false if no answer from the reeti (default 15000 ms)	returns <i>true</i> if the command is correctly performed returns <i>false</i> if the command is not correctly performed or if a timeout happened	make the reeti talk and move its lips synchronously
stopSpeechSync	<i>int_timeout</i> : delay before the function return false if no answer from the reeti (default 15000 ms)	returns <i>true</i> if the command is correctly performed returns <i>false</i> if the command is not correctly performed or if a timeout happened	make the reeti play the chosen sequence synchronously
playSequenceSync	<i>string_sequence</i> : the sequence file to play <i>int_timeout</i> : delay before the function return false if no answer from the reeti (default 15000 ms)	returns <i>true</i> if the command is correctly performed returns <i>false</i> if the command is not correctly performed or if a timeout happened	make the reeti play the chosen pose synchronously
playPoseSync	<i>string_pose</i> : the pose file to play <i>int_timeout</i> : delay before the function return false if no answer from the reeti (default 15000 ms)	returns <i>true</i> if the command is correctly performed returns <i>false</i> if the command is not correctly performed or if a timeout happened	set the position of the 15 actuators of the Reeti asynchronously

Mutual functions

Functions	Parameters	Return Value	Description
neckRotat	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the rotation of the Reeti's neck to the desired value
neckPan	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the pan of the Reeti's neck to the desired value
neckTilt	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the tilt of the Reeti's neck to the desired value
rightLC	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the position of the right lips corner of the Reeti to the desired value
leftLC	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the position of the left lips corner of the Reeti to the desired value
topLip	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the position of the top lip of the Reeti to the desired value

bottomLip	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the position of the bottom lip of the Reeti to the desired value
rightEyePan	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the pan of the Reeti's right eye to the desired value
rightEyeTilt	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the tilt of the Reeti's right eye to the desired value
leftEyePan	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the pan of the Reeti's left eye to the desired value
leftEyeTilt	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the tilt of the Reeti's left eye to the desired value
rightEyeLid	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the position of the Reeti's right eye lid to the desired value
leftEyeLid	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the position of the Reeti's left eye lid to the desired value
rightEar	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the position of the Reeti's right ear to the desired value
leftEar	<i>float_pos</i> : a float between 0 and 100	<i>void</i>	set the position of the Reeti's left ear to the desired value
setLedColor	<i>Led_led</i> : the led to set between LEFTLED, RIGHTLED and BOTHLED <i>string_color</i> : the desired color between red, green, light green, blue, dark blue, turquoise, yellow, violet, white, stop	<i>void</i>	set the color of the desired led
setLedRGB	<i>Led_led</i> : the led to set between LEFTLED, RIGHTLED and BOTHLED <i>float_r</i> : red intensity (between 0 and 1023) <i>float_g</i> : green intensity (between 0 and 1023) <i>float_b</i> : blue intensity (between 0 and 1023)	<i>void</i>	set the color of the desired led
isConnected	<i>void</i>	returns <i>true</i> if connected returns <i>false</i> if not connected	check if the connection is still available
getLastPosition	<i>void</i>	returns a <i>ReetiPosition</i> object containing the 15 positions	returns the last known positions of the 15 actuators
getColor	<i>void</i>	returns a <i>string</i> with the current color of the led	returns the current color of the reeti's led
getLastBookmark	<i>void</i>	returns a <i>string</i> with the last bookmark found	returns the last bookmark encountered in a reeti's speech
isSpeaking	<i>void</i>	returns <i>true</i> if the reeti is speaking returns <i>false</i> if not	returns if the reeti is speaking or not
isPlaying	<i>void</i>	returns <i>true</i> if the reeti is playing a sequence returns <i>false</i> if not	returns if the reeti is playing a sequence or not

See the [Samples](#) in order to get more information about using the C++ API.