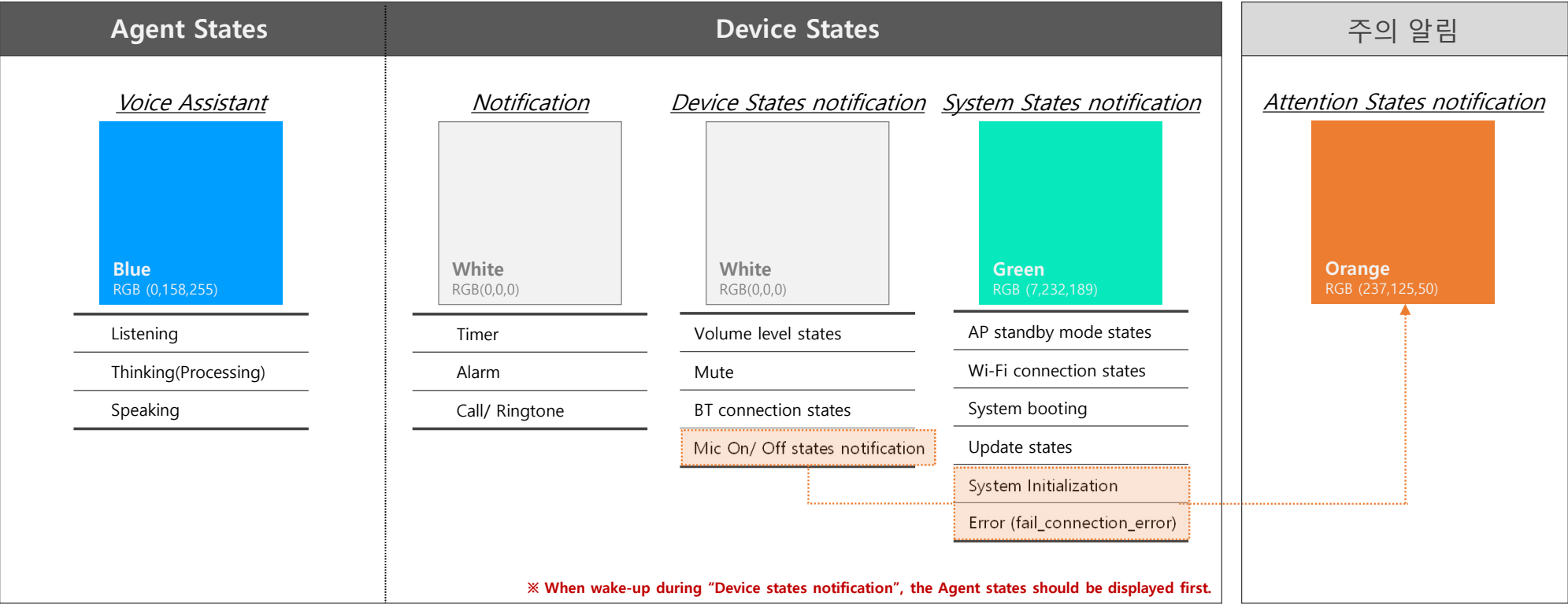
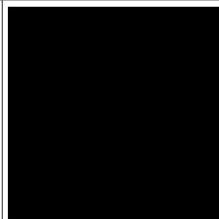
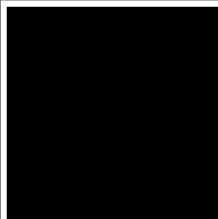
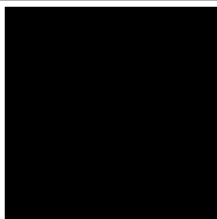
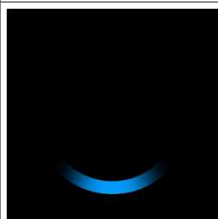
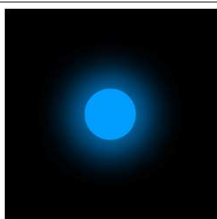


NUGU Device LED Lighting UX

The NUGU platform uses a total of 4 lighting colors according to states in order to provide a consistent user experience and convey the interaction simply and clearly.

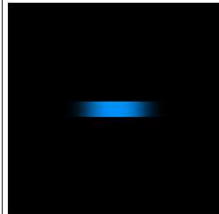
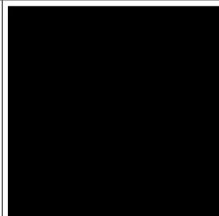
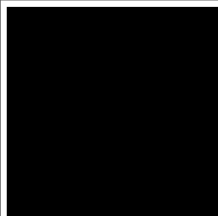
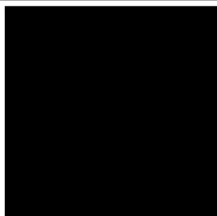
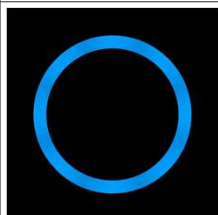
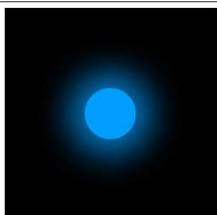


NUGU Device LED Lighting UX _Agent States

				AI STB 2		albert AI			
Status		Description	Lighting Color	Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS	
1	Idle		Standby state available for wake up	N/A	N/A	N/A	N/A	N/A	
2	Listening	Listening Start	- When the user calls a button or voice and the microphone is activated, the corresponding lighting is played. - If the user's location can be determined and the direction of the LED can be controlled, the lighting is directed toward the user's voice. - Play once	Blue RGB (0,158,255)				 Default: OFF → ON	N/A
		Listening (Passive/ Active)	- The corresponding lighting stays on continuously while waiting for input or while the user is saying. - If the user's location can be determined and the direction of the LED can be controlled, the lighting is directed toward the user's voice. - Motion: N/A (100% On 상태)	Blue RGB (0,158,255)				N/A	N/A
		Listening End	- When the user's speech input is completed or the microphone turns off after a certain period of time, the corresponding lighting is played. - Play once	Blue RGB (0,158,255)				 ASR result/ cancel Default: OFF → ON	N/A

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NUGU Device LED Lighting UX _Agent States

			AI STB 2			albert AI			
	Status		Description	Lighting Color	Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS
3	Processing		- While analyzing and processing the input user's utterance, the corresponding lighting is played continuously. - Repeat play	Blue RGB (0,158,255)				N/A	N/A
4	Speaking	Speaking	- From the moment start responding to user's request, the lighting will play repeatly while responding. - Repeat play	Blue RGB (0,158,255)				N/A	○
		Speaking End	- After completing the response to the user's request, when it returns to the idle state, the corresponding lighting is played. - play once	Blue RGB (0,158,255)				N/A	N/A

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NUGU Device LED Lighting UX _ Device States

		AI STB 2		albert AI				
Status		Description	Lighting Color	Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS
1	Alarm/ Timer	- To informs the preset Timer or Alarm time of user, the lighting is played back. Plays continuously before stopping by the user or for a set amount of time - Repeat play	White RGB(0,0,0)				 Always ON	N/A
2	BT연결	BT 연결 대기 중	N/A	N/A	N/A	N/A	N/A	(Play TTS lighting if there is a TTS that informs the connection waiting state) 
		BT Connected	White RGB(0,0,0)				 Always ON	N/A
		BT Disconnected	White RGB(0,0,0)				 Always ON	N/A

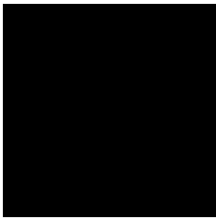
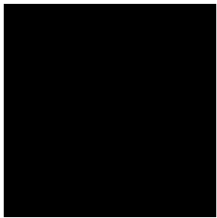
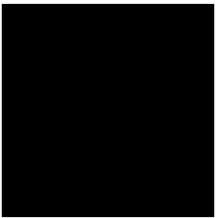
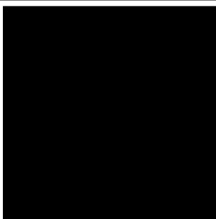
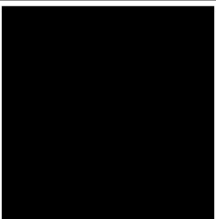
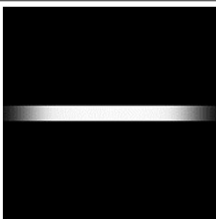
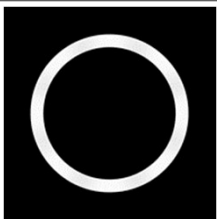
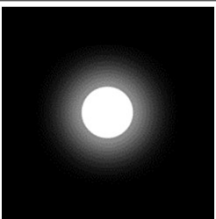
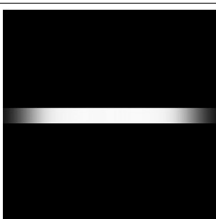
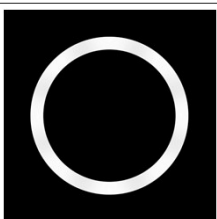
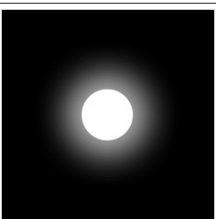
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NUGU Device LED Lighting UX _ Device States

		AI STB 2		albert AI					
Status		Description	Lighting Color	Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS	
3	Volume	Volume Up - When the user adjusts the volume with a button or voice, the corresponding lighting is played once. - The volume level is played by dividing the maximum and minimum values that can be displayed in a total of 10 steps. (Use of lighting brightness, range, etc.) - Play once	White RGB(X,X,X)			N/A (Do not play lighting if the volume level level cannot be displayed)	Do not play Beepsound while playing media or TTS 	N/A	
		Volume Down - When the user adjusts the volume with a button or voice, the corresponding lighting is played once. - Play once	White RGB(X,X,X)			N/A (Do not play lighting if the volume level level cannot be displayed)	Do not play Beepsound while playing media or TTS 	N/A	
		Mute - When the device's volume is 0 or muted, the corresponding lighting is played and notified. - Play once	White RGB(X,X,X)				N/A	N/A	
		Max - When the device's volume is at 100 or Max, the corresponding lighting is played and notified. - Play once	White RGB(X,X,X)				Do not play Beepsound while playing media or TTS 	N/A	

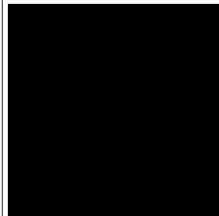
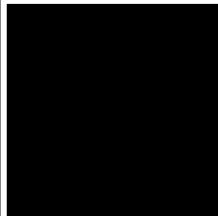
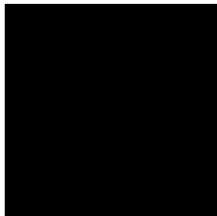
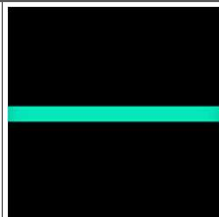
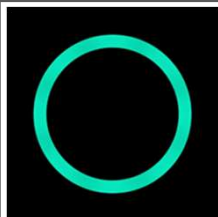
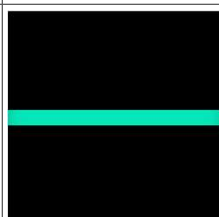
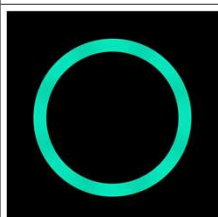
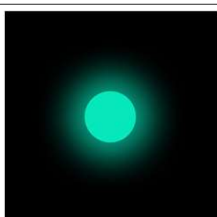
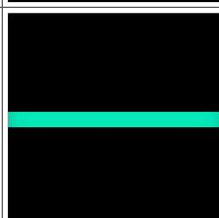
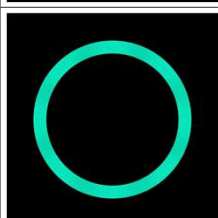
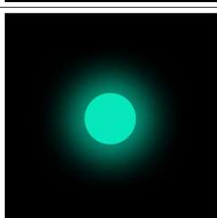
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NUGU Device LED Lighting UX _ Device States

		AI STB 2		albert AI					
Status		Description	Lighting Color	Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS	
4	Call	Ringtone - When a call is received on the user's device, the corresponding lighting is continuously played while the phone rings. - When a user makes a call through the device, the corresponding lighting is played continuously while the call ring tone sounds. - Play repeatly	White RGB(X,X,X)				 Always ON	N/A	
		Call Start - When the user's device is connected to the other party, the corresponding lighting is played. - play once	White RGB(X,X,X)				N/A	N/A	
		Calling - While the user is making a call with the other party, the corresponding lighting is played continuously. - Keep 100% On	White RGB(X,X,X)				N/A	N/A	
		Call End - When the call between the user and the other party ends, the corresponding lighting is played. - When a user rejects a call while receiving a call or cancels a call while receiving a call, the corresponding lighting is played. - Play once	White RGB(X,X,X)				 Always ON	N/A	

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NUGU Device LED Lighting UX _ Device States

			AI STB 2		albert AI				
Status			Description	Lighting Color	Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS
1	System boot		- When the system is automatically booted after the device is powered on, the corresponding lighting is played until the booting is completed. - Play once	Green Blue RGB (X,X,X) RGB (X,X,X)					N/A
2	AP connection	AP connection Standby mode	- When booting is complete, the corresponding lighting is maintained while connecting the AP. - Keep 100% On	Green RGB(X,X,X)				N/A	○
		WI-Fi Connecting	- When the device connects to WiFi, the corresponding lighting is played continuously from the start of the WiFi connection until the connection to the NUGU server is completed. - Repeat play	Green RGB(X,X,X)				N/A	○
		WI-Fi connection connected	- When the connection to the NUGU server is completed, the lighting is played once and the lighting is turned off. - Play once	Green RGB(X,X,X)				N/A	N/A

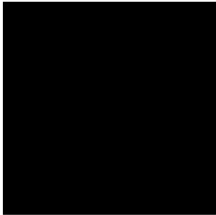
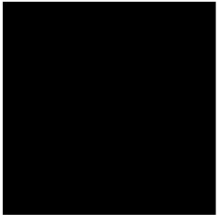
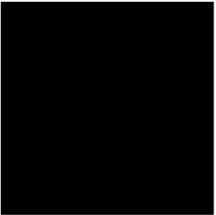
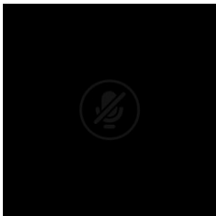
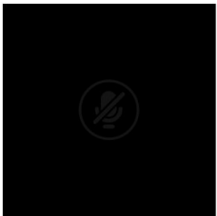
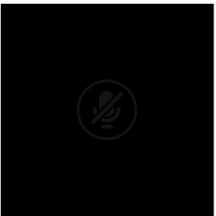
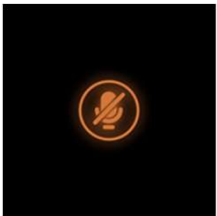
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NUGU Device LED Lighting UX _ Device States

AI STB 2					albert AI			
	Status	Description	Lighting Color	Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS
3	System upgrade	- If the firmware of the latest version is automatically updated, the corresponding lighting is continuously played until the update is completed. - Repeat play	Green RGB(X,X,X)				N/A	○

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NUGU Device LED Lighting UX _Attention notification

AI STB 2					albert AI				
Status		Description	Lighting Color		Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS
1	Mic	Mic On → Off	Orange RGB(237,125,50)	Interaction area (LED play once)				N/A Beep sound production required	(In case voice and commands)
				States display area (LED Off→On)					
		Mic Off	Orange RGB(237,125,50)	Interaction area (LED Off)	OFF	OFF	OFF	N/A	N/A
				States display area (LED 100% On)					

NUGU Device LED Lighting UX _Attention notification

AI STB 2					albert AI					
	Status		Description	Lighting Color		Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS
1	Mic	Mic Off → On	• The lighting is played when the user turns on the microphone of a device that is turned off	 Orange RGB(237,125,50)	Interaction area (LED Off)	OFF	OFF	OFF	N/A Beep sound production required	 (In case voice and commands)
					States display area (LED On→Off)					

[Microphone states indication]

Since the feedback on the microphone status is different depending on the trigger, it is defined as follows.

- Voice command, text command trigger (TTS played)
 - 1) Mic states display area lighting: ON -> OFF
 - 2) Interaction area lighting: TTS lighting playback
- PUI button, App button trigger (TTS not played)
 - 1) Mic states display lighting : ON ↔ OFF
 - 2) Interaction area lighting : 위 해당 라이팅 재생

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NUGU Device LED Lighting UX _Attention notification

AI STB 2					albert AI			
	Status	Description	Lighting Color	Animation (Linear)	Animation (Radial)	Animation (Single)	Sound	TTS
2	Initialization ready mode	- When the user enters the initialization preparation stage to initialize the device, the corresponding lighting is played during the time-out period until the time-out or initialization starts - Play once, depending on initialization speed	Orange RGB(X,X,X)				N/A	N/A
3	Error	- If the device cannot operate normally or respond due to an error, the corresponding lighting is played once. - The following parts of Error TTS (fail_connection_error) are applicable - Play once	Orange RGB(X,X,X)				N/A	○

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[Microphone states indication]

Among the error categories, the case of playing error lighting is defined as follows.

Ex. In case of "fail_connection_error" in Albert POC's Error category, error lighting is played, and TTS lighting is not played when TTS is played.

- 1."Can't connect to the Internet. Please check your network connection"
- 2."Can't connect with any service. Please check the device firmware version"
- 3."Can't connect to anyone's service. Please change the device connection information in someone's app"
- 4."There was a network delay. Please tell me again later."
- 5."The update has failed. Please check the internet connection information from someone app."
- 6."There was a problem with the connection for a while, but I'm not embarrassed with Superheroes! Wait a moment and tell me again."
- 7."Oh, there's a problem with the connection. Please wait a moment and I'll calmly solve the problem."
- 8."There must be a problem with the connection. If you wait a moment, the best boy genius in the universe will try to solve it step by step."
- 9."Huh? I can't connect with anyone's service. Please change the device connection information in the anyone's app."
- 10."I'm getting stuck in the road today. Please talk to me again after a while!"
- 11."I'm not in good condition today, my connection is getting slower. Please talk again after a while!"
- 12."Oh, the connection is slowing down. Please talk again after a while!"