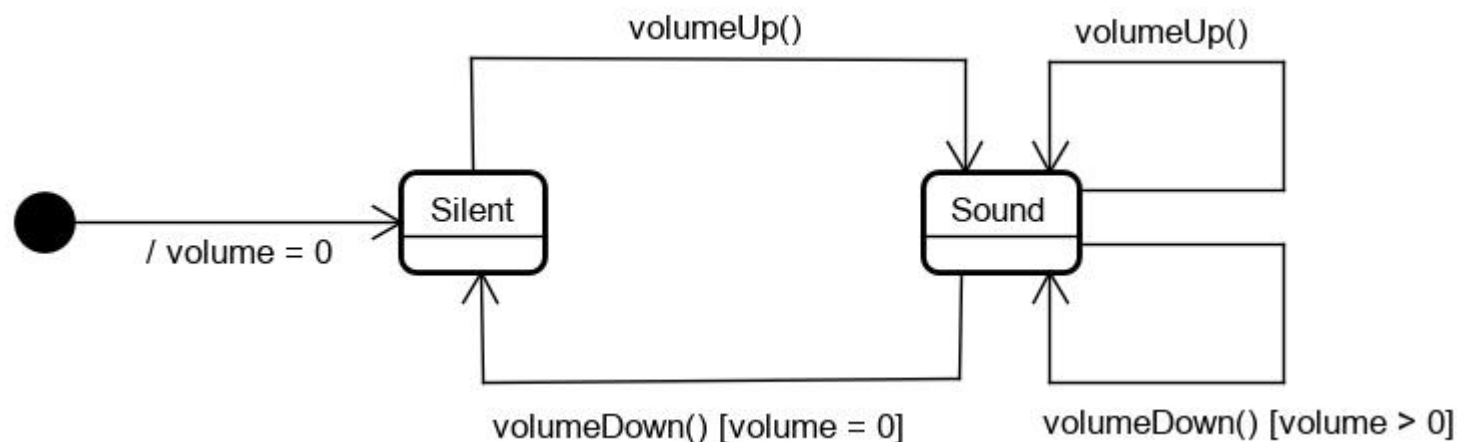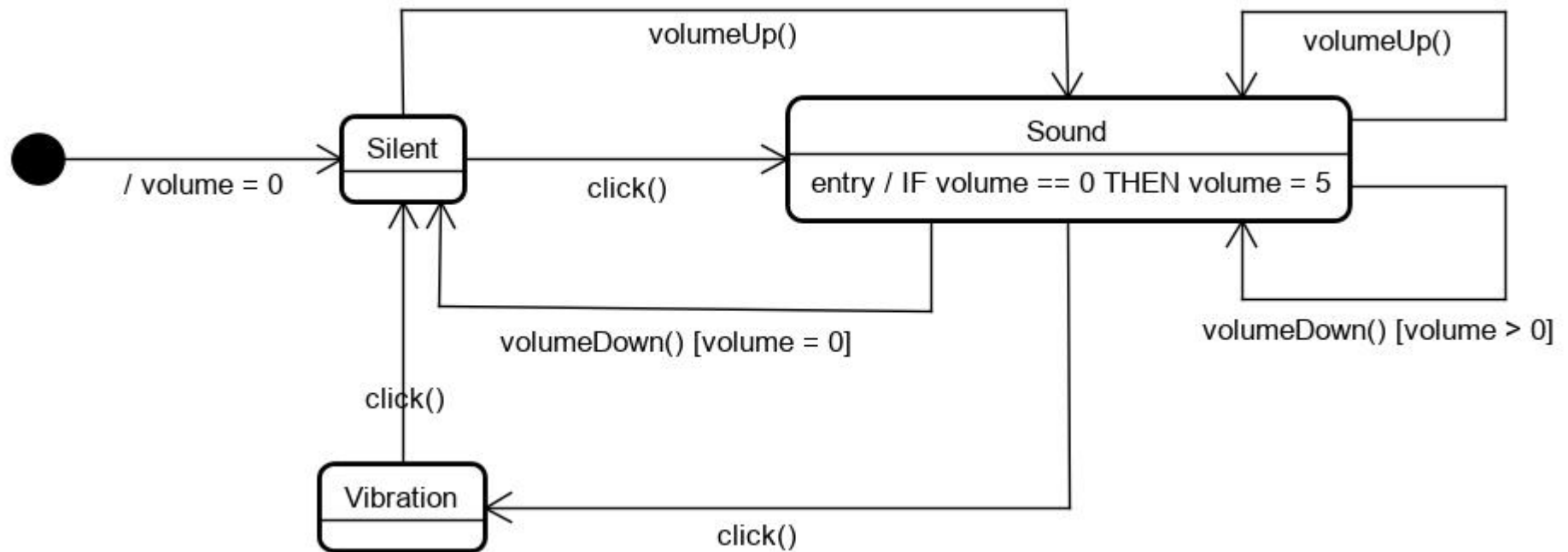# A mobile phone with volume buttons

- The phone is in **Silent mode** and volume = 0
- Turn up volume → **Sound mode**
- Turn up volume → **Sound mode** (no change in state)
- Turn down if volume > 1 → **Sound mode** (no change)
- Turn down volume to 0 → **Silent mode**
- …

A mobile phone with sound and volume buttons

Mobile phone v2 – class diagram

Phone

- volume : int
- MIN_VOLUME : int = 0
- MAX_VOLUME : int = 10

+ clickSoundButton() : void
+ setState(state : AlertState) : void
+ volumeUp() : void
+ volumeDown() : void
+ getVolume() : int
+ receive(message : String) : void

AlertState

+ *click(phone : Phone) : void*
+ *alert() : String*
+ volumeUp(phone : Phone) : void
+ volumeDown(phone : Phone) : void

SilentState

+ click(phone : Phone) : void
+ alert() : String
+ volumeUp(phone : Phone) : void

SoundState

+ SoundState(phone : Phone)
+ click(phone : Phone) : void
+ alert() : String
+ volumeDown(phone : Phone) : void

VibrationState

+ click(phone : Phone) : void
+ alert() : String