

# Unittest for smart\_brain

February 9, 2023

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## 1 Test System Information

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System Information	
Architecture	64bit
Machine	x86_64
Hostname	ahorn
Distribution	Linux Mint 21.1 (vera)
System	Linux
Kernel	5.15.0-58-generic (#64-Ubuntu SMP Thu Jan 5 11:43:13 UTC 2023)
Username	dirk
Path	/home/dirk/my_repositories/smarthome/smart_brain_test/all.py

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## 2 Summary

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Number of tests	5
Number of successfull tests	5
Number of possibly failed tests	0
Number of failed tests	0

---

Executionlevel	unknown
Time consumption	4.510s

---

## 3 Testcases (Success)

### 3.1 Away mode test: zigbee/gfw/dirk/heating\_valve

#### Testsummary

This test was passed with the state: **Success**.

---

Caller:	/home/dirk/my_repositories/smarthome/smart_brain_test/tests/heating.py (84)
Start-Time:	2023-02-09 07:53:02,566
Finished-Time:	2023-02-09 07:53:03,468
Time-Consumption	0.902s

---

#### Testresults:

---

<b>Info</b>	Setting preconditions (Default setpoint)
<b>Success</b>	Away mode is correct (Content False and Type is <class 'bool'>).
<b>Info</b>	Activating away mode
<b>Success</b>	Away mode is correct (Content True and Type is <class 'bool'>).
<b>Success</b>	Temperature setpoint is correct (Content 20 and Type is <class 'int'>).
<b>Info</b>	Deactivating away mode
<b>Success</b>	Away mode is correct (Content False and Type is <class 'bool'>).
<b>Success</b>	Temperature setpoint is correct (Content 25 and Type is <class 'int'>).

---

**Testdetails**

**Info** Setting preconditions (Default setpoint)

Sending message with topic videv/gfw/dirk/heating\_valve/set\_default\_temperature and  
 ↪ payload true

Received message with topic videv/gfw/dirk/heating\_valve/set\_default\_temperature and  
 ↪ payload b'true'

Received message with topic videv/gfw/dirk/heating\_valve/user\_temperature\_setpoint  
 ↪ and payload b'25'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload  
 ↪ b'{"current\_heating\_setpoint": 25}'

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ {"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint  
 ↪ and payload b'25'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ b'{"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}'

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload  
 ↪ b'20.7'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

**Success** Away mode is correct (Content False and Type is <class 'bool'>).

Result (Away mode): False (<class 'bool'>)

Expectation (Away mode): result = False (<class 'bool'>)

---

**Info** Activating away mode

---

Sending message with topic videv/gfw/dirk/heating\_valve/away\_mode and payload true

Received message with topic videv/gfw/dirk/heating\_valve/away\_mode and payload b'true'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload

↳ b'{"current\_heating\_setpoint": 20}'

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload

↳ {"current\_heating\_setpoint": 20, "local\_temperature": 20.7, "\_\_type\_\_":

↳ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint

↳ and payload b'20'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload

↳ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
↳ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
↳ {"control": true, "display": true}, "start\_boost": {"control": true},  
↳ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
↳ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
↳ true}}'

Received message with topic videv/gfw/dirk/heating\_valve/away\_mode and payload b'true'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload

↳ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
↳ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
↳ {"control": true, "display": true}, "start\_boost": {"control": true},  
↳ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
↳ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
↳ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve and payload

↳ b'{"current\_heating\_setpoint": 20, "local\_temperature": 20.7, "\_\_type\_\_":  
↳ "brennenstuhl\_heating\_valve"}'

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload

↳ b'20.7'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload

↳ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
↳ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
↳ {"control": true, "display": true}, "start\_boost": {"control": true},  
↳ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
↳ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
↳ true}}'

---

**Success** Away mode is correct (Content True and Type is <class 'bool'>).

---

Result (Away mode): True (<class 'bool'>)

Expectation (Away mode): result = True (<class 'bool'>)

---

**Success** Temperature setpoint is correct (Content 20 and Type is <class 'int'>).

---

Result (Temperature setpoint): 20 (<class 'int'>)

Expectation (Temperature setpoint): result = 20 (<class 'int'>)

---

**Info** Deactivating away mode

---

Sending message with topic videv/gfw/dirk/heating\_valve/away\_mode and payload false

Received message with topic videv/gfw/dirk/heating\_valve/away\_mode and payload  
 ↳ b'false'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload  
 ↳ b'{"current\_heating\_setpoint": 25}'

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↳ {"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↳ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint  
 ↳ and payload b'25'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↳ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↳ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↳ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↳ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↳ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↳ true}}'

Received message with topic videv/gfw/dirk/heating\_valve/away\_mode and payload  
 ↳ b'false'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↳ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↳ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↳ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↳ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↳ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↳ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↳ b'{"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↳ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload  
 ↳ b'20.7'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↳ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↳ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↳ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↳ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↳ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↳ true}}'

---

**Success** Away mode is correct (Content False and Type is <class 'bool'>).

---

Result (Away mode): False (<class 'bool'>)

Expectation (Away mode): result = False (<class 'bool'>)

---

**Success** Temperature setpoint is correct (Content 25 and Type is <class 'int'>).

---

Result (Temperature setpoint): 25 (<class 'int'>)

Expectation (Temperature setpoint): result = 25 (<class 'int'>)

---

### 3.2 Boost mode test: zigbee/gfw/dirk/heating\_valve

#### Testsummary

This test was passed with the state: **Success**.

---

Caller: /home/dirk/my\_repositories/smarthome/smart\_brain\_test/tests/heating.py (107)  
 Start-Time: 2023-02-09 07:53:03,468  
 Finished-Time: 2023-02-09 07:53:04,370  
 Time-Consumption 0.902s

---

#### Testresults:

**Info** Setting preconditions (Default setpoint)  
**Success** Boost timer is correct (Content 0 and Type is <class 'int'>).  
**Info** Activating boost mode  
**Success** Boost timer is greater expectation (Content 900 and Type is <class 'int'>).  
**Info** Setting postconditions (Default setpoint)  
**Success** Boost timer is correct (Content 0 and Type is <class 'int'>).

---

#### Testdetails

**Info** Setting preconditions (Default setpoint)

---

Sending message with topic videv/gfw/dirk/heating\_valve/set\_default\_temperature and  
 ↪ payload true

Received message with topic videv/gfw/dirk/heating\_valve/set\_default\_temperature and  
 ↪ payload b'true'

---

**Success** Boost timer is correct (Content 0 and Type is <class 'int'>).

---

Result (Boost timer): 0 (<class 'int'>)

Expectation (Boost timer): result = 0 (<class 'int'>)

---

**Info** Activating boost mode

---

Sending message with topic videv/gfw/dirk/heating\_valve/start\_boost and payload true

---

Received message with topic videv/gfw/dirk/heating\_valve/start\_boost and payload  
 ↪ b'true'

Received message with topic videv/gfw/dirk/heating\_valve/boost\_timer and payload  
 ↪ b'900'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload  
 ↪ b'{"current\_heating\_setpoint": 30}'

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ {"current\_heating\_setpoint": 30, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint  
 ↪ and payload b'30'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ b'{"current\_heating\_setpoint": 30, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}'

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload  
 ↪ b'20.7'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

---

**Success** Boost timer is greater expectation (Content 900 and Type is <class 'int'>).

---

Result (Boost timer): 900 (<class 'int'>)

Expectation (Boost timer): result > 0 (<class 'int'>)

---

**Info** Setting postconditions (Default setpoint)

---

Sending message with topic videv/gfw/dirk/heating\_valve/set\_default\_temperature and  
 ↪ payload true

Received message with topic videv/gfw/dirk/heating\_valve/set\_default\_temperature and  
 ↪ payload b'true'

Received message with topic videv/gfw/dirk/heating\_valve/boost\_timer and payload b'0'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload  
 ↪ b'{"current\_heating\_setpoint": 25}'

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ {"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint  
 ↪ and payload b'25'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ b'{"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload  
 ↪ b'20.7'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

---

**Success** Boost timer is correct (Content 0 and Type is <class 'int'>).

---

Result (Boost timer): 0 (<class 'int'>)

Expectation (Boost timer): result = 0 (<class 'int'>)

### 3.3 Default temperature test for device and virtual device: zigbee/gfw/dirk/heating\_valve

#### Testsummary

This test was passed with the state: **Success**.

---

Caller: /home/dirk/my\_repositories/smarthome/smart\_brain\_test/tests/heating.py (41)  
 Start-Time: 2023-02-09 07:53:04,370  
 Finished-Time: 2023-02-09 07:53:04,972  
 Time-Consumption 0.601s

---

**Testresults:**

---

**Info** Setting preconditions (Valve setpoint to 20.0)  
**Success** Valve temperature setpoint (is not default temperature) is correct (Content True and Type is <class 'bool'>).  
**Info** Triggering set to default temperature (25.0)  
**Success** Valve temperature setpoint is correct (Content 25 and Type is <class 'int'>).

---

**Testdetails**

---

**Info** Setting preconditions (Valve setpoint to 20.0)

---

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ {"current\_heating\_setpoint": 20, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ b'{"current\_heating\_setpoint": 20, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload  
 ↪ b'{"current\_heating\_setpoint": 20}'

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint  
 ↪ and payload b'20'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic videv/gfw/dirk/heating\_valve/user\_temperature\_setpoint  
 ↪ and payload b'20'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload  
 ↪ b'20.7'

```
Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'
```

---

**Success** Valve temperature setpoint (is not default temperature) is correct (Content True and Type is <class 'bool'>).

---

```
Result (Valve temperature setpoint (is not default temperature)): True (<class
↳ 'bool'>)
```

```
Expectation (Valve temperature setpoint (is not default temperature)): result = True
↳ (<class 'bool'>)
```

---

**Info** Triggering set to default temperature (25.0)

---

```
Sending message with topic videv/gfw/dirk/heating_valve/set_default_temperature and
↳ payload true
```

```
Received message with topic videv/gfw/dirk/heating_valve/set_default_temperature and
↳ payload b'true'
```

```
Received message with topic videv/gfw/dirk/heating_valve/user_temperature_setpoint
↳ and payload b'25'
```

```
Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'
```

```
Received message with topic zigbee/gfw/dirk/heating_valve/set and payload
↳ b'{"current_heating_setpoint": 25}'
```

```
Sending message with topic zigbee/gfw/dirk/heating_valve and payload
↳ {"current_heating_setpoint": 25, "local_temperature": 20.7, "__type__":
↳ "brennenstuhl_heating_valve"}
```

```
Received message with topic videv/gfw/dirk/heating_valve/valve_temperature_setpoint
↳ and payload b'25'
```

```
Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'
```

```
Received message with topic zigbee/gfw/dirk/heating_valve and payload
↳ b'{"current_heating_setpoint": 25, "local_temperature": 20.7, "__type__":
↳ "brennenstuhl_heating_valve"}
```

```
Received message with topic videv/gfw/dirk/heating_valve/temperature and payload
↳ b'20.7'
```

```
Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'
```

**Success** Valve temperature setpoint is correct (Content 25 and Type is <class 'int'>).

```
Result (Valve temperature setpoint): 25 (<class 'int'>)
```

```
Expectation (Valve temperature setpoint): result = 25 (<class 'int'>)
```

### 3.4 Summer mode test: zigbee/gfw/dirk/heating\_valve

#### Testsummary

This test was passed with the state: **Success**.

```
Caller: /home/dirk/my_repositories/smarthome/smart_brain_test/tests/heating.py (61)
Start-Time: 2023-02-09 07:53:04,972
Finished-Time: 2023-02-09 07:53:05,874
Time-Consumption 0.902s
```

#### Testresults:

```
Info Setting preconditions (Default setpoint)
Success Summer mode is correct (Content False and Type is <class 'bool'>).
Info Activating summer mode
Success Summer mode is correct (Content True and Type is <class 'bool'>).
Success Temperature setpoint is correct (Content 5 and Type is <class 'int'>).
Info Deactivating summer mode
Success Summer mode is correct (Content False and Type is <class 'bool'>).
Success Temperature setpoint is correct (Content 25 and Type is <class 'int'>).
```

#### Testdetails

**Info** Setting preconditions (Default setpoint)

```
Sending message with topic videv/gfw/dirk/heating_valve/set_default_temperature and
↳ payload true
```

```
Received message with topic videv/gfw/dirk/heating_valve/set_default_temperature and
↳ payload b'true'
```

**Success** Summer mode is correct (Content False and Type is <class 'bool'>).

```
Result (Summer mode): False (<class 'bool'>)
```

Expectation (Summer mode): result = False (<class 'bool'>)

---

**Info** Activating summer mode

---

Sending message with topic videv/gfw/dirk/heating\_valve/summer\_mode and payload true

Received message with topic videv/gfw/dirk/heating\_valve/summer\_mode and payload  
 ↪ b'true'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload  
 ↪ b'{"current\_heating\_setpoint": 5}'

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ {"current\_heating\_setpoint": 5, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint  
 ↪ and payload b'5'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic videv/gfw/dirk/heating\_valve/summer\_mode and payload  
 ↪ b'true'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ b'{"current\_heating\_setpoint": 5, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}'

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload  
 ↪ b'20.7'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

---

**Success** Summer mode is correct (Content True and Type is <class 'bool'>).

---

Result (Summer mode): True (<class 'bool'>)

Expectation (Summer mode): result = True (<class 'bool'>)

**Success** Temperature setpoint is correct (Content 5 and Type is <class 'int'>).

Result (Temperature setpoint): 5 (<class 'int'>)

Expectation (Temperature setpoint): result = 5 (<class 'int'>)

**Info** Deactivating summer mode

Sending message with topic videv/gfw/dirk/heating\_valve/summer\_mode and payload false

Received message with topic videv/gfw/dirk/heating\_valve/summer\_mode and payload  
 ↪ b'false'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload  
 ↪ b'{"current\_heating\_setpoint": 25}'

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ {"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint  
 ↪ and payload b'25'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic videv/gfw/dirk/heating\_valve/summer\_mode and payload  
 ↪ b'false'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ b'{"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload  
 ↪ b'20.7'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

---

**Success** Summer mode is correct (Content False and Type is <class 'bool'>).

---

Result (Summer mode): False (<class 'bool'>)

Expectation (Summer mode): result = False (<class 'bool'>)

---

**Success** Temperature setpoint is correct (Content 25 and Type is <class 'int'>).

---

Result (Temperature setpoint): 25 (<class 'int'>)

Expectation (Temperature setpoint): result = 25 (<class 'int'>)

---

### 3.5 User temperature setpoint test for device and virtual device: zigbee/gfw/dirk/heating\_valve

#### Testsummary

This test was passed with the state: **Success**.

---

Caller:	/home/dirk/my_repositories/smarthome/smart_brain_test/tests/heating.py (17)
Start-Time:	2023-02-09 07:53:05,874
Finished-Time:	2023-02-09 07:53:07,076
Time-Consumption	1.203s

---

#### Testresults:

---

<b>Info</b>	Changing valve temperature setpoint to '20.0'
<b>Success</b>	Virtual device valve temperature is correct (Content 20 and Type is <class 'int'>).
<b>Success</b>	Virtual device user temperature is correct (Content 20 and Type is <class 'int'>).
<b>Info</b>	Changing videv user temperature setpoint to '25.0'
<b>Success</b>	Valve device temperature setpoint is correct (Content 25 and Type is <class 'int'>).
<b>Success</b>	Virtual device valve temperature is correct (Content 25 and Type is <class 'int'>).
<b>Info</b>	Changing valve temperature setpoint to '20.0'
<b>Success</b>	Virtual device valve temperature is correct (Content 20 and Type is <class 'int'>).
<b>Success</b>	Virtual device user temperature is correct (Content 20 and Type is <class 'int'>).
<b>Info</b>	Changing videv user temperature setpoint to '25.0'
<b>Success</b>	Valve device temperature setpoint is correct (Content 25 and Type is <class 'int'>).
<b>Success</b>	Virtual device valve temperature is correct (Content 25 and Type is <class 'int'>).

---

#### Testdetails

---

**Info** Changing valve temperature setpoint to '20.0'

---

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ {"current\_heating\_setpoint": 20, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ b'{"current\_heating\_setpoint": 20, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload  
 ↪ b'{"current\_heating\_setpoint": 20}'

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint  
 ↪ and payload b'20'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic videv/gfw/dirk/heating\_valve/user\_temperature\_setpoint  
 ↪ and payload b'20'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload  
 ↪ b'20.7'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

---

**Success** Virtual device valve temperature is correct (Content 20 and Type is <class 'int'>).

---

Result (Virtual device valve temperature): 20 (<class 'int'>)

Expectation (Virtual device valve temperature): result = 20 (<class 'int'>)

---

**Success** Virtual device user temperature is correct (Content 20 and Type is <class 'int'>).

---

Result (Virtual device user temperature): 20 (<class 'int'>)

Expectation (Virtual device user temperature): result = 20 (<class 'int'>)

---

**Info** Changing videv user temperature setpoint to '25.0'

---

Sending message with topic videv/gfw/dirk/heating\_valve/user\_temperature\_setpoint and  
 ↪ payload 25

Received message with topic videv/gfw/dirk/heating\_valve/user\_temperature\_setpoint  
 ↪ and payload b'25'

```
Received message with topic zigbee/gfw/dirk/heating_valve/set and payload
↳ b'{"current_heating_setpoint": 25}'
```

```
Sending message with topic zigbee/gfw/dirk/heating_valve and payload
↳ {"current_heating_setpoint": 25, "local_temperature": 20.7, "__type__":
↳ "brennenstuhl_heating_valve"}
```

```
Received message with topic videv/gfw/dirk/heating_valve/valve_temperature_setpoint
↳ and payload b'25'
```

```
Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'
```

```
Received message with topic videv/gfw/dirk/heating_valve/user_temperature_setpoint
↳ and payload b'25'
```

```
Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'
```

```
Received message with topic zigbee/gfw/dirk/heating_valve and payload
↳ b'{"current_heating_setpoint": 25, "local_temperature": 20.7, "__type__":
↳ "brennenstuhl_heating_valve"}'
```

```
Received message with topic videv/gfw/dirk/heating_valve/temperature and payload
↳ b'20.7'
```

```
Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'
```

---

**Success** Valve device temperature setpoint is correct (Content 25 and Type is <class 'int'>).

---

```
Result (Valve device temperature setpoint): 25 (<class 'int'>)
```

```
Expectation (Valve device temperature setpoint): result = 25 (<class 'int'>)
```

---

**Success** Virtual device valve temperature is correct (Content 25 and Type is <class 'int'>).

---

```
Result (Virtual device valve temperature): 25 (<class 'int'>)
```

```
Expectation (Virtual device valve temperature): result = 25 (<class 'int'>)
```

---

---

**Info** Changing valve temperature setpoint to '20.0'

---

```

Sending message with topic zigbee/gfw/dirk/heating_valve and payload
↳ {"current_heating_setpoint": 20, "local_temperature": 20.7, "__type__":
↳ "brennenstuhl_heating_valve"}

Received message with topic zigbee/gfw/dirk/heating_valve and payload
↳ b'{"current_heating_setpoint": 20, "local_temperature": 20.7, "__type__":
↳ "brennenstuhl_heating_valve"}'

Received message with topic zigbee/gfw/dirk/heating_valve/set and payload
↳ b'{"current_heating_setpoint": 20}'

Received message with topic videv/gfw/dirk/heating_valve/valve_temperature_setpoint
↳ and payload b'20'

Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'

Received message with topic videv/gfw/dirk/heating_valve/user_temperature_setpoint
↳ and payload b'20'

Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'

Received message with topic videv/gfw/dirk/heating_valve/temperature and payload
↳ b'20.7'

Received message with topic videv/gfw/dirk/heating_valve/__info__ and payload
↳ b'{"__type__": "videv_heating", "user_temperature_setpoint": {"control": true,
↳ "display": true}, "away_mode": {"control": true, "display": true}, "summer_mode":
↳ {"control": true, "display": true}, "start_boost": {"control": true},
↳ "set_default_temperature": {"control": true}, "valve_temperature_setpoint":
↳ {"display": true}, "boost_timer": {"display": true}, "temperature": {"display":
↳ true}}'

```

---

**Success** Virtual device valve temperature is correct (Content 20 and Type is <class 'int'>).

---

```

Result (Virtual device valve temperature): 20 (<class 'int'>)
Expectation (Virtual device valve temperature): result = 20 (<class 'int'>)

```

---

**Success** Virtual device user temperature is correct (Content 20 and Type is <class 'int'>).

---

```

Result (Virtual device user temperature): 20 (<class 'int'>)

```

Expectation (Virtual device user temperature): result = 20 (<class 'int'>)

**Info** Changing videv user temperature setpoint to '25.0'

Sending message with topic videv/gfw/dirk/heating\_valve/user\_temperature\_setpoint and  
 ↪ payload 25

Received message with topic videv/gfw/dirk/heating\_valve/user\_temperature\_setpoint  
 ↪ and payload b'25'

Received message with topic zigbee/gfw/dirk/heating\_valve/set and payload  
 ↪ b'{"current\_heating\_setpoint": 25}'

Sending message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ {"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/valve\_temperature\_setpoint  
 ↪ and payload b'25'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic videv/gfw/dirk/heating\_valve/user\_temperature\_setpoint  
 ↪ and payload b'25'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

Received message with topic zigbee/gfw/dirk/heating\_valve and payload  
 ↪ b'{"current\_heating\_setpoint": 25, "local\_temperature": 20.7, "\_\_type\_\_":  
 ↪ "brennenstuhl\_heating\_valve"}

Received message with topic videv/gfw/dirk/heating\_valve/temperature and payload  
 ↪ b'20.7'

Received message with topic videv/gfw/dirk/heating\_valve/\_\_info\_\_ and payload  
 ↪ b'{"\_\_type\_\_": "videv\_heating", "user\_temperature\_setpoint": {"control": true,  
 ↪ "display": true}, "away\_mode": {"control": true, "display": true}, "summer\_mode":  
 ↪ {"control": true, "display": true}, "start\_boost": {"control": true},  
 ↪ "set\_default\_temperature": {"control": true}, "valve\_temperature\_setpoint":  
 ↪ {"display": true}, "boost\_timer": {"display": true}, "temperature": {"display":  
 ↪ true}}'

**Success** Valve device temperature setpoint is correct (Content 25 and Type is <class 'int'>).

Result (Valve device temperature setpoint): 25 (<class 'int'>)

```
Expectation (Valve device temperature setpoint): result = 25 (<class 'int'>)
```

---

**Success** Virtual device valve temperature is correct (Content 25 and Type is <class 'int'>).

---

```
Result (Virtual device valve temperature): 25 (<class 'int'>)
```

```
Expectation (Virtual device valve temperature): result = 25 (<class 'int'>)
```