OnSemi BLE

OnSemi BLE module allows to interact with OnSemi device via BLE, periodically receive telemetry from device and control connected LEDs, motors and rotor.

Implementing class: `com.arrow.selene.device.ble.onsemi.OnsemiModule`

OS dependency: Linux systems only (due to bluetooth stack implementations)

Requirements: bluez v5.42+, BLE adapter

Info:

Name	Data type	Unit of measurement	Valid values	Default value	Description
bleInterface	string	N/A	N/A	N/D	Defines name of bluetooth interface (e.g. `hci0`)
bleAddress	string	N/A	N/A	N/D	Defines MAC address of device (e.g. `FA:73:B2:D1:FD:C7`)

Properties:

Name	Data type	Unit of measurement	Valid values	Default value	Description
retryInterval	integer	milliseconds	0—2147483647 (0x7fffffff)	N/D	Defines interval of checking GATT connectivity. Makes sense only in case if `useDbus=false`
useDbus	boolean	N/A	true/false	false	Enables D-Bus be used to obtain data instead of direct parsing of received packets

Telemetry:

Name	Data type	Unit of measurement	Valid values	Description
led1value	integer	N/A	0—1023	Glow intensity of LED 1
led2value	integer	N/A	0—1023	Glow intensity of LED 2
motor1angle	integer	degrees	0—65535	Motor 1 angle. **Note:** it has no practical value.
motor2angle	integer	degrees	0—65535	Motor 2 angle. **Note:** it has no practical value.
light	float	lux	0—3.4028235E38	Light intensity in lux
pir	integer	N/A	0/1	Movement detection
rotorRPM	integer	round per minute	0, 4400—13400	Rotor spinning speed

States:

Name	Data type	Unit of measurement	Valid values	Description
led1value	integer	N/A	0—1023	Defines value of LED 1 glowing intensity
led2value	integer	N/A	0—1023	Defines value of LED 1 glowing intensity
motor1angle	integer	degrees	0—65535	Defines angle of motor 1 rotation
motor2angle	integer	degrees	0—65535	Defines angle of motor 2 rotation
rotorRPM	integer	round per minute	0, 4400—13400	Defines rotor spinning speed. **Note:** set it to 0 to stop rotation