

Protocol Documentation - Server/database and Devices group

Homedork - Interactive Smart House

Revision History

Name	Associated Letter
Sam McMurray	A
Wills Ekanem	B

Date	Version	Description	Author
-	-	-	-
-	-	-	-
21/11/2021	1.0	Communication protocol	B
15/11/2021	1.1	Updated protocol and entire document	A,B
8/11/2021	1.2	Added protocol for adding & removing a device.	B

Abbreviations

- 1) Local Hub – **LB**
- 2) Database Server – **DBS**

Communication method

A TCP socket is set up between the DBS and LB address gotten from the device being updated. The socket connection isn't encrypted for now.

Communication format

DEVICE-TYPE:PIN-NUMBER:ACTION

ACTION → **ON** or **OFF** in terms of **STATE**. Double value range(101) for **LEVEL**.

DEVICE-TYPE → LAMP, FAN, CURTAIN, THERMOMETER, WINDOW, ALARM.

PIN-NUMBER → Pin slot of connected device.

Action: Client → Web or mobile app

Nr	Operation	Command	REQ	Response
1	Turn device on	deviceType:pinNumber:ON	R4	Success/Failure
2	Turn device off	deviceType:pinNumber:OFF	R4	Success/Failure
3	Slide device level	deviceType:pinNumber:44	R4	Success/Failure
4	Add new device	ND:deviceType:pinNumber	R13	Success/Failure
5	Remove device	RD:deviceType:pinNumber	R14	Success/Failure

Action: User → on physical LB

Nr	Operation	Command	REQ	Response
1	Turn device on	deviceType:pinNumber:ON	R9	Success/Failure
2	Turn device off	deviceType:pinNumber:OFF	R9	Success/Failure
3	Slide device level	deviceType:pinNumber:44	R9	Success/Failure