**Unit Testing Report**

**for Smart Humidifier System**

**Project Team**

**Team 4**

Date

**2022-07-16**

**Team Information**

고현서

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1. Introduction
   1. Objectives

본 문서는 2022년 동국대학교의 캡스톤 디자인 강의의 실습과제를 설명한다. 실습과제는 스마트 가습기 시스템(SHS)을 아두이노와 앱인벤터를 통해 구현하는 것을 의미한다.

* 1. References

T4\_2022\_SRA\_SHS\_Ver5.0

T4\_2022\_UTP\_SHS\_Ver1.0

1. Unit test case specification

2.1 Test case specification identifier

<Table 1 : Test Design Identification>

|  |  |  |
| --- | --- | --- |
| Identifier | Feature(Process DFD) | Valid/ Invalid value |
| TEAM4\_SHS\_0\_000\_000 | 1.1.1 LCD\_SET | Data Input : t = 25, h = 40 |
| TEAM4\_SHS\_0\_001\_000 | 1.2.1 Water Level Inspection | Data Input : water\_level = 90 |
| TEAM4\_SHS\_0\_001\_001 | 1.2.1 Water Level Inspection | Data Input : water\_level = 100 |
| TEAM4\_SHS\_0\_002\_000 | 1.3.1 Mode Controller | Data Input : mode\_set = “1”, auto\_control = 0 |
| TEAM4\_SHS\_0\_002\_001 | 1.3.1 Mode Controller | Data Input : mode\_set = “2”, auto\_control = 0 |
| TEAM4\_SHS\_0\_002\_002 | 1.3.1 Mode Controller | Data Input : mode\_set = “4”, auto\_control = 0 |
| TEAM4\_SHS\_0\_002\_003 | 1.3.1 Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_002\_004 | 1.3.1 Mode Controller | Data Input : mode\_set = “6”, auto\_control = 0 |
| TEAM4\_SHS\_0\_003\_000 | 1.3.2 Manual Mode Controller | Data Input : mode\_set = “1”,  auto\_control = 0 |
| TEAM4\_SHS\_0\_003\_001 | 1.3.2 Manual Mode Controller | Data Input : mode\_set = “2”, auto\_control = 0 |
| TEAM4\_SHS\_0\_003\_002 | 1.3.2 Manual Mode Controller | Data Input : mode\_set = “2”,  auto\_control = 0 |
| TEAM4\_SHS\_0\_003\_003 | 1.3.2 Manual Mode Controller | Data Input : mode\_set = “1”,  auto\_control = 0 |
| TEAM4\_SHS\_0\_003\_004 | 1.3.2 Manual Mode Controller | Data Input : mode\_set = “2”,  auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_000 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “4”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_001 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “1”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_002 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_003 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_004 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_005 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_006 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_007 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_008 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_009 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_010 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_011 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_012 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_013 | 1.3.3 Auto Mode Controller | Data Input : mode\_set = “5”, auto\_control = 0 |
| TEAM4\_SHS\_0\_005\_000 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 24, humi = 45 |
| TEAM4\_SHS\_0\_005\_001 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 22, humi = 55 |
| TEAM4\_SHS\_0\_005\_002 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 18, humi = 65 |
| TEAM4\_SHS\_0\_005\_003 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 17, humi = 45 |
| TEAM4\_SHS\_0\_005\_004 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 24, humi = 45 |
| TEAM4\_SHS\_0\_005\_005 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 22, humi = 55 |
| TEAM4\_SHS\_0\_005\_006 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 18, humi = 65 |
| TEAM4\_SHS\_0\_005\_007 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 24, humi = 45 |
| TEAM4\_SHS\_0\_005\_008 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 22, humi = 55 |
| TEAM4\_SHS\_0\_005\_009 | 1.3.3.1 Auto Mode Control\_ON | Data Input : auto\_control = 0, mode\_set = “4”, temp = 18, humi = 65 |
| TEAM4\_SHS\_0\_006\_000 | 1.3.3.2 Auto Mode Control\_OFF | Data Input : auto\_control = 0, mode\_set = “4”, temp = 24, humi = 35 |
| TEAM4\_SHS\_0\_006\_001 | 1.3.3.2 Auto Mode Control\_OFF | Data Input : auto\_control = 0, mode\_set = “4”, temp = 22, humi = 45 |
| TEAM4\_SHS\_0\_006\_002 | 1.3.3.2 Auto Mode Control\_OFF | Data Input : auto\_control = 0, mode\_set = “4”, temp = 18, humi = 55 |
| TEAM4\_SHS\_0\_006\_003 | 1.3.3.2 Auto Mode Control\_OFF | Data Input : auto\_control = 0, mode\_set = “4”, temp = 17, humi = 45 |
| TEAM4\_SHS\_0\_006\_004 | 1.3.3.2 Auto Mode Control\_OFF | Data Input : auto\_control = 0, mode\_set = “4”, temp = 24, humi = 35 |
| TEAM4\_SHS\_0\_006\_005 | 1.3.3.2 Auto Mode Control\_OFF | Data Input : auto\_control = 0, mode\_set = “4”, temp = 22, humi = 45 |
| TEAM4\_SHS\_0\_006\_006 | 1.3.3.2 Auto Mode Control\_OFF | Data Input : auto\_control = 0, mode\_set = “4”, temp = 18, humi = 55 |
| TEAM4\_SHS\_0\_006\_007 | 1.3.3.2 Auto Mode Control\_OFF | Data Input : auto\_control = 0, mode\_set = “4”, temp = 24, humi = 35 |
| TEAM4\_SHS\_0\_006\_008 | 1.3.3.2 Auto Mode Control\_OFF | Data Input : auto\_control = 0, mode\_set = “4”, temp = 22, humi = 45 |
| TEAM4\_SHS\_0\_006\_009 | 1.3.3.2 Auto Mode Control\_OFF | mode\_set = “4”, temp = 18, humi = 55 |
| TEAM4\_SHS\_0\_007\_000 | 1.4.1 Setting Mode Controller | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, only\_set = 1, higher\_humi = 1 |
| TEAM4\_SHS\_0\_007\_001 | 1.4.1 Setting Mode Controller | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 70, only\_set = 1, higher\_humi = 1, pause = 1 |
| TEAM4\_SHS\_0\_007\_002 | 1.4.1 Setting Mode Controller | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 40 , only\_set = 1, higher\_humi = 1, pause = 1 |
| TEAM4\_SHS\_0\_007\_003 | 1.4.1 Setting Mode Controller | Data Input : user\_humi = -10 |
| TEAM4\_SHS\_0\_007\_004 | 1.4.1 Setting Mode Controller | Data Input : user\_humi = 95 |
| TEAM4\_SHS\_0\_007\_005 | 1.4.1 Setting Mode Controller | Data Input : user\_humi = 80 |
| TEAM4\_SHS\_0\_007\_006 | 1.4.1 Setting Mode Controller | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 70, only\_set = 1, higher\_humi = 1, pause = 1 |
| TEAM4\_SHS\_0\_007\_007 | 1.4.1 Setting Mode Controller | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 70, only\_set = 1, higher\_humi = 1, pause = 1 |
| TEAM4\_SHS\_0\_007\_008 | 1.4.1 Setting Mode Controller | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 70, only\_set = 1, higher\_humi = 1, pause = 1 |

2.2 Test items

<Table 2 : Test Case Identification>

|  |  |  |
| --- | --- | --- |
| Test case Identifier | Input Specification | Output Specification |
| TEAM4\_SHS\_0\_000\_000 | Data Input :  t = 25, h = 40 | “temperature : 25°C humidity : 40%” 출력 |
| TEAM4\_SHS\_0\_001\_000 | Data Input :  commandInspectionData. water\_level = 90 | commandInspectionData.info\_water = 1 |
| TEAM4\_SHS\_0\_001\_001 | Data Input :  commandInspectionData.water\_level = 100 | commandInspectionData.info\_water = 0 |
| TEAM4\_SHS\_0\_002\_000 | Data Input :  CommandData.mode\_set = “1”  CommandData.auto\_control = 0 | CommandData.mode\_result = 30 |
| TEAM4\_SHS\_0\_002\_001 | Data Input :  CommandData.mode\_set = “2”  CommandData.auto\_control = 0 | CommandData. mode\_result = 31 |
| TEAM4\_SHS\_0\_002\_002 | Data Input :  CommandData.mode\_set = “4” CommandData.auto\_control = 0 | CommandData. mode\_result = 1 |
| TEAM4\_SHS\_0\_002\_003 | Data Input :  CommandData.mode\_set = “5” CommandData.auto\_control = 0 | CommandData.manualActiveCommandData. mode\_result = 34, |
| TEAM4\_SHS\_0\_002\_004 | Data Input :  CommandData.mode\_set = “6” CommandData.auto\_control = 0 | CommandData. mode\_result = 40 |
| TEAM4\_SHS\_0\_003\_000 | Data Input :  manualActiveCommandData.mode\_set = “1”  manualActiveCommandData auto\_control = 0 | manualActiveCommandData.result\_manual\_on = 30,  manualActiveCommandData.auto\_control = 0 |
| TEAM4\_SHS\_0\_003\_001 | Data Input :  manualActiveCommandData.mode\_set = “2”  CommandData. auto\_control = 1 | manualActiveCommandData.result\_manual\_on = 40 |
| TEAM4\_SHS\_0\_003\_002 | Data Input :  manualActiveCommandData.mode\_set = “2”  manualActiveCommandData .auto\_control = 0 | manualActiveCommandData.mode\_result= 31,  manualActiveCommandData.auto\_control = 0 |
| TEAM4\_SHS\_0\_003\_003 | Data Input :  manualActiveCommandData.mode\_set = “1”  manualActiveCommandData.auto\_control = 0 | manualActiveCommandData.mode\_result = 30  manualActiveCommandData.auto\_control = 0 |
| TEAM4\_SHS\_0\_003\_004 | Data Input :  autoActiveCommandData.mode\_set = “2”,  CommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 31  autoActiveCommandData.auto\_control = 0 |
| TEAM4\_SHS\_0\_004\_000 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 1 |
| TEAM4\_SHS\_0\_004\_001 | Data Input :  autoActiveCommandData.mode\_set  =“1”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 40 |
| TEAM4\_SHS\_0\_004\_002 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_003 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_004 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_005 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_006 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_007 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_008 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_009 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_010 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_011 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_012 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_004\_013 | Data Input :  autoActiveCommandData.mode\_set  =“5”, autoActiveCommandData.auto\_control = 0 | autoActiveCommandData.mode\_result = 34 |
| TEAM4\_SHS\_0\_005\_000 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 24,  autoActiveCommandData.humi =45 | autoActiveCommandData. result\_auto\_humi\_succeed= 32 |
| TEAM4\_SHS\_0\_005\_001 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 22,  autoActiveCommandData.humi =55 | autoActiveCommandData. result\_auto\_humi\_succeed= 32 |
| TEAM4\_SHS\_0\_005\_002 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 18,  autoActiveCommandData.humi =65 | autoActiveCommandData. result\_auto\_humi\_succeed= 32 |
| TEAM4\_SHS\_0\_005\_003 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 17,  autoActiveCommandData.humi =45 | autoActiveCommandData.result\_auto\_humi\_succeed = 40 |
| TEAM4\_SHS\_0\_005\_004 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 24,  autoActiveCommandData.humi =45 | aut autoActiveCommandData. result\_auto\_humi\_succeed= 32 |
| TEAM4\_SHS\_0\_005\_005 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 22,  autoActiveCommandData.humi =55 | autoActiveCommandData. result\_auto\_humi\_succeed= 32 |
| TEAM4\_SHS\_0\_005\_006 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 18,  autoActiveCommandData.humi =65 | autoActiveCommandData. result\_auto\_humi\_succeed= 32 |
| TEAM4\_SHS\_0\_005\_007 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 24,  autoActiveCommandData.humi =45 | autoActiveCommandData. result\_auto\_humi\_succeed= 32 |
| TEAM4\_SHS\_0\_005\_008 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 22,  autoActiveCommandData.humi =55 | autoActiveCommandData. result\_auto\_humi\_succeed= 32 |
| TEAM4\_SHS\_0\_005\_009 | Data Input :  autoActiveCommandData.mode\_set = “4”,  autoActiveCommandData.auto\_control = 0,  autoActiveCommandData.temp = 18,  autoActiveCommandData.humi =65 | autoActiveCommandData. result\_auto\_humi\_succeed= 32 |
| TEAM4\_SHS\_0\_006\_000 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 24, humi = 35 | autoActiveCommandData.result\_auto\_humi\_fail = 33 |
| TEAM4\_SHS\_0\_006\_001 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 22, humi = 45 | autoActiveCommandData.result\_auto\_humi\_fail = 33 |
| TEAM4\_SHS\_0\_006\_002 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 18, humi = 55 | autoActiveCommandData.result\_auto\_humi\_fail = 33 |
| TEAM4\_SHS\_0\_006\_003 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 17, humi = 45 | autoActiveCommandData.result\_auto\_humi\_fail = 40 |
| TEAM4\_SHS\_0\_006\_004 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 24, humi = 35 | autoActiveCommandData.result\_auto\_humi\_fail = 33 |
| TEAM4\_SHS\_0\_006\_005 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 22, humi = 45 | setActiveCommandData.result\_set\_mode\_off = 33 |
| TEAM4\_SHS\_0\_006\_006 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 18, humi = 55 | setActiveCommandData.result\_set\_mode\_off = 33 |
| TEAM4\_SHS\_0\_006\_007 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 24, humi = 35 | autoActiveCommandData.result\_auto\_humi\_fail = 33 |
| TEAM4\_SHS\_0\_006\_008 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 22, humi = 45 | setActiveCommandData.result\_set\_mode\_off = 33 |
| TEAM4\_SHS\_0\_006\_009 | Data Input : auto\_control = 0, mode\_set = “4”, temp = 18, humi = 55 | setActiveCommandData.result\_set\_mode\_off = 33 |
| TEAM4\_SHS\_0\_007\_000 | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, only\_set = 1, higher\_humi = 1 | setActiveCommandData.result\_set\_mode\_on = 35 |
| TEAM4\_SHS\_0\_007\_001 | Data Input : input\_humi = “std”, Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 70, only\_set = 1, higher\_humi = 1, pause = 1 | setActiveCommandData.result\_set\_mode\_on = 36 |
| TEAM4\_SHS\_0\_007\_002 | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 40 , only\_set = 1, higher\_humi = 1, pause = 1 | setActiveCommandData.result\_set\_mistake = 40 |
| TEAM4\_SHS\_0\_007\_003 | Data Input : user\_humi = -10 | setActiveCommandData.result\_set\_mistake = 37 |
| TEAM4\_SHS\_0\_007\_004 | Data Input : user\_humi = 95 | setActiveCommandData.result\_set\_mistake = 37 |
| TEAM4\_SHS\_0\_007\_005 | Data Input : user\_humi = 80 | setActiveCommandData.result\_set\_mistake = 40 |
| TEAM4\_SHS\_0\_007\_006 | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 70, only\_set = 1, higher\_humi = 1, pause = 1 | setActiveCommandData.result\_set\_mode\_on = 36 |
| TEAM4\_SHS\_0\_007\_007 | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 70, only\_set = 1, higher\_humi = 1, pause = 1 | setActiveCommandData.result\_set\_mode\_on = 36 |
| TEAM4\_SHS\_0\_007\_008 | Data Input : input\_humi = “std”, humi = 50, user\_humi = 60, humi\_up = 70, only\_set = 1, higher\_humi = 1, pause = 1 | setActiveCommandData.result\_set\_mode\_on = 36 |

2.3 Input specifications

<Table 1 : Test Design Identification> 참조

8.4 Output Specifications

<Table 2 : Test Case Identification> 참조

1. Environmental needs

UTP\_Ver1.0, 9 Environmental needs 참조

4. Unit test summary report identifier

4.1 Test summary report identifier

|  |  |
| --- | --- |
| Test Case Identifier | Result |
| TEAM4\_SHS\_0\_000\_000 | Passed |
| TEAM4\_SHS\_0\_001\_000 | Passed |
| TEAM4\_SHS\_0\_001\_001 | Passed |
| TEAM4\_SHS\_0\_002\_000 | Passed |
| TEAM4\_SHS\_0\_002\_001 | Passed |
| TEAM4\_SHS\_0\_002\_002 | Passed |
| TEAM4\_SHS\_0\_002\_003 | Passed |
| TEAM4\_SHS\_0\_002\_004 | Passed |
| TEAM4\_SHS\_0\_003\_000 | Passed |
| TEAM4\_SHS\_0\_003\_001 | Passed |
| TEAM4\_SHS\_0\_003\_002 | Passed |
| TEAM4\_SHS\_0\_003\_003 | Passed |
| TEAM4\_SHS\_0\_003\_004 | Passed |
| TEAM4\_SHS\_0\_004\_000 | Passed |
| TEAM4\_SHS\_0\_004\_001 | Passed |
| TEAM4\_SHS\_0\_004\_002 | Passed |
| TEAM4\_SHS\_0\_004\_003 | Passed |
| TEAM4\_SHS\_0\_004\_004 | Passed |
| TEAM4\_SHS\_0\_004\_005 | Passed |
| TEAM4\_SHS\_0\_004\_006 | Passed |
| TEAM4\_SHS\_0\_004\_007 | Passed |
| TEAM4\_SHS\_0\_004\_008 | Passed |
| TEAM4\_SHS\_0\_004\_009 | Passed |
| TEAM4\_SHS\_0\_004\_010 | Passed |
| TEAM4\_SHS\_0\_004\_011 | Passed |
| TEAM4\_SHS\_0\_004\_012 | Passed |
| TEAM4\_SHS\_0\_004\_013 | Passed |
| TEAM4\_SHS\_0\_005\_000 | Passed |
| TEAM4\_SHS\_0\_005\_001 | Passed |
| TEAM4\_SHS\_0\_005\_002 | Passed |
| TEAM4\_SHS\_0\_005\_003 | Passed |
| TEAM4\_SHS\_0\_005\_004 | Passed |
| TEAM4\_SHS\_0\_005\_005 | Passed |
| TEAM4\_SHS\_0\_005\_006 | Passed |
| TEAM4\_SHS\_0\_005\_007 | Passed |
| TEAM4\_SHS\_0\_005\_008 | Passed |
| TEAM4\_SHS\_0\_005\_009 | Passed |
| TEAM4\_SHS\_0\_006\_000 | Passed |
| TEAM4\_SHS\_0\_006\_001 | Passed |
| TEAM4\_SHS\_0\_006\_002 | Passed |
| TEAM4\_SHS\_0\_006\_003 | Passed |
| TEAM4\_SHS\_0\_006\_004 | Passed |
| TEAM4\_SHS\_0\_006\_005 | Passed |
| TEAM4\_SHS\_0\_006\_006 | Passed |
| TEAM4\_SHS\_0\_006\_007 | Passed |
| TEAM4\_SHS\_0\_006\_008 | Passed |
| TEAM4\_SHS\_0\_006\_009 | Passed |
| TEAM4\_SHS\_0\_007\_000 | Passed |
| TEAM4\_SHS\_0\_007\_001 | Passed |
| TEAM4\_SHS\_0\_007\_002 | Passed |
| TEAM4\_SHS\_0\_007\_003 | Passed |
| TEAM4\_SHS\_0\_007\_004 | Passed |
| TEAM4\_SHS\_0\_007\_005 | Passed |
| TEAM4\_SHS\_0\_007\_006 | Passed |
| TEAM4\_SHS\_0\_007\_007 | Passed |
| TEAM4\_SHS\_0\_007\_008 | Passed |
|  | Passed |

4.2 Evaluation

Total Test Case : 56

Passed : 56

Failed : 0