

Coffee Machine System

Team Presentation 3

TI

201211364 이경민

201211333 김영호

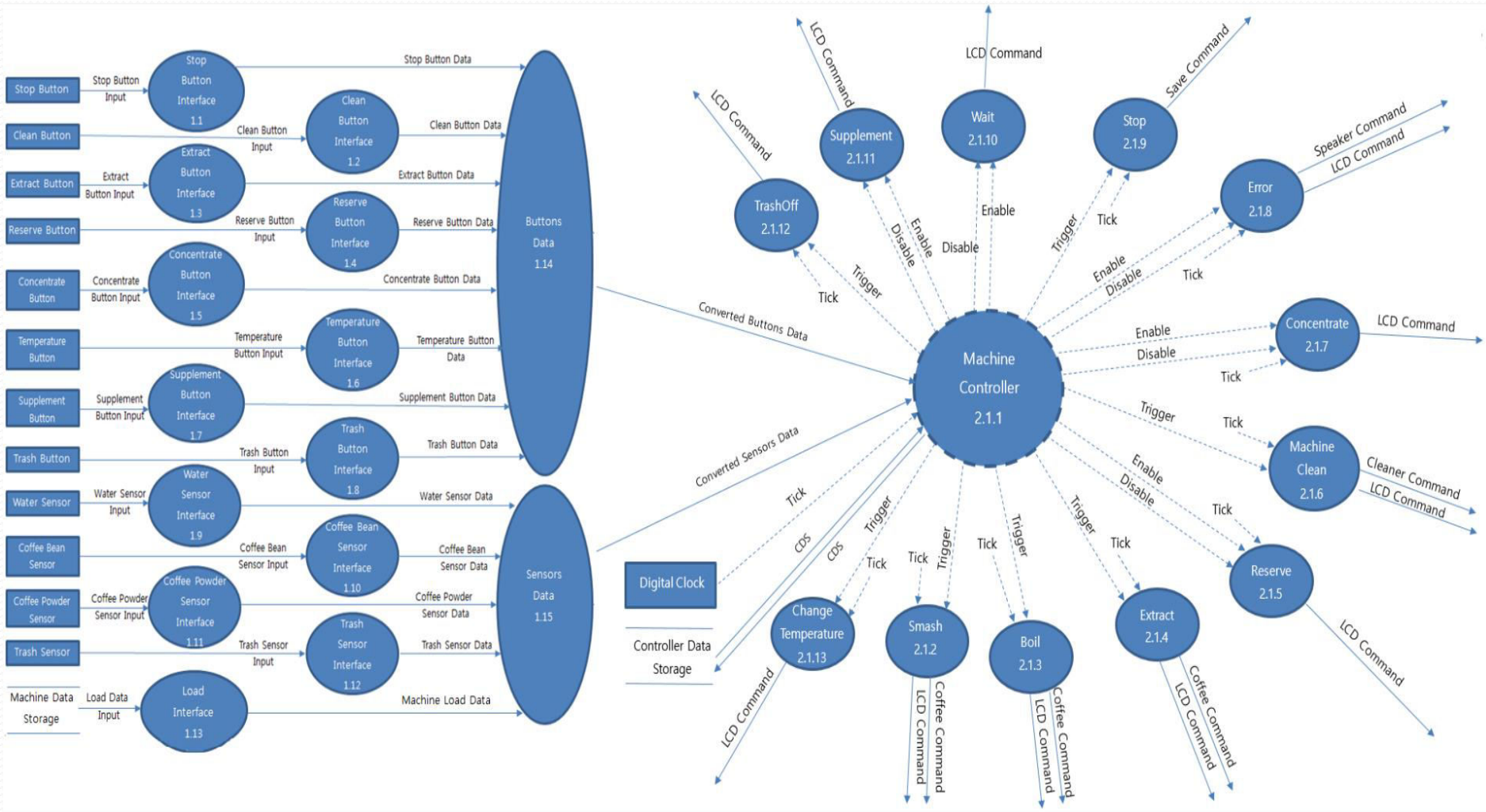
201211347 박성근

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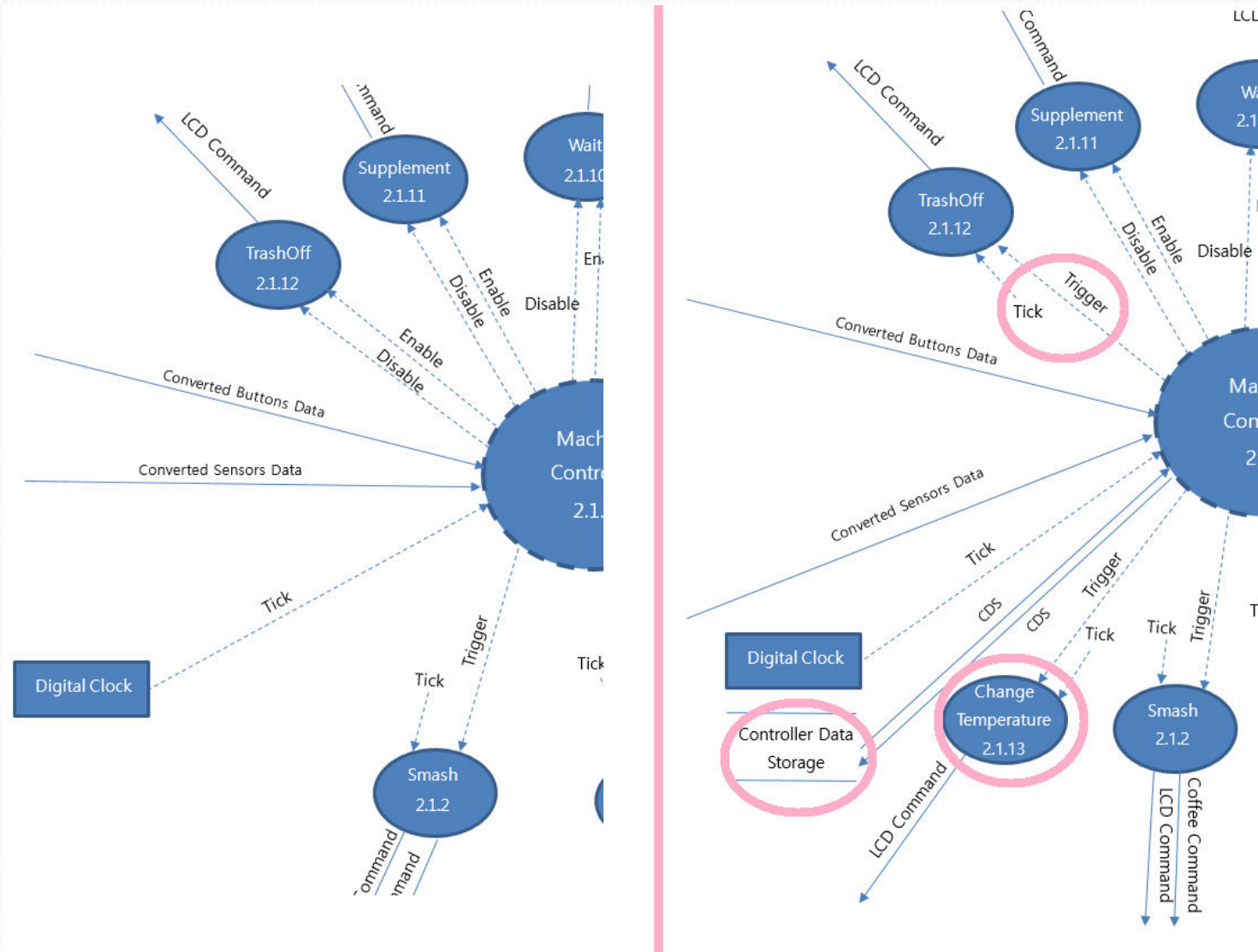
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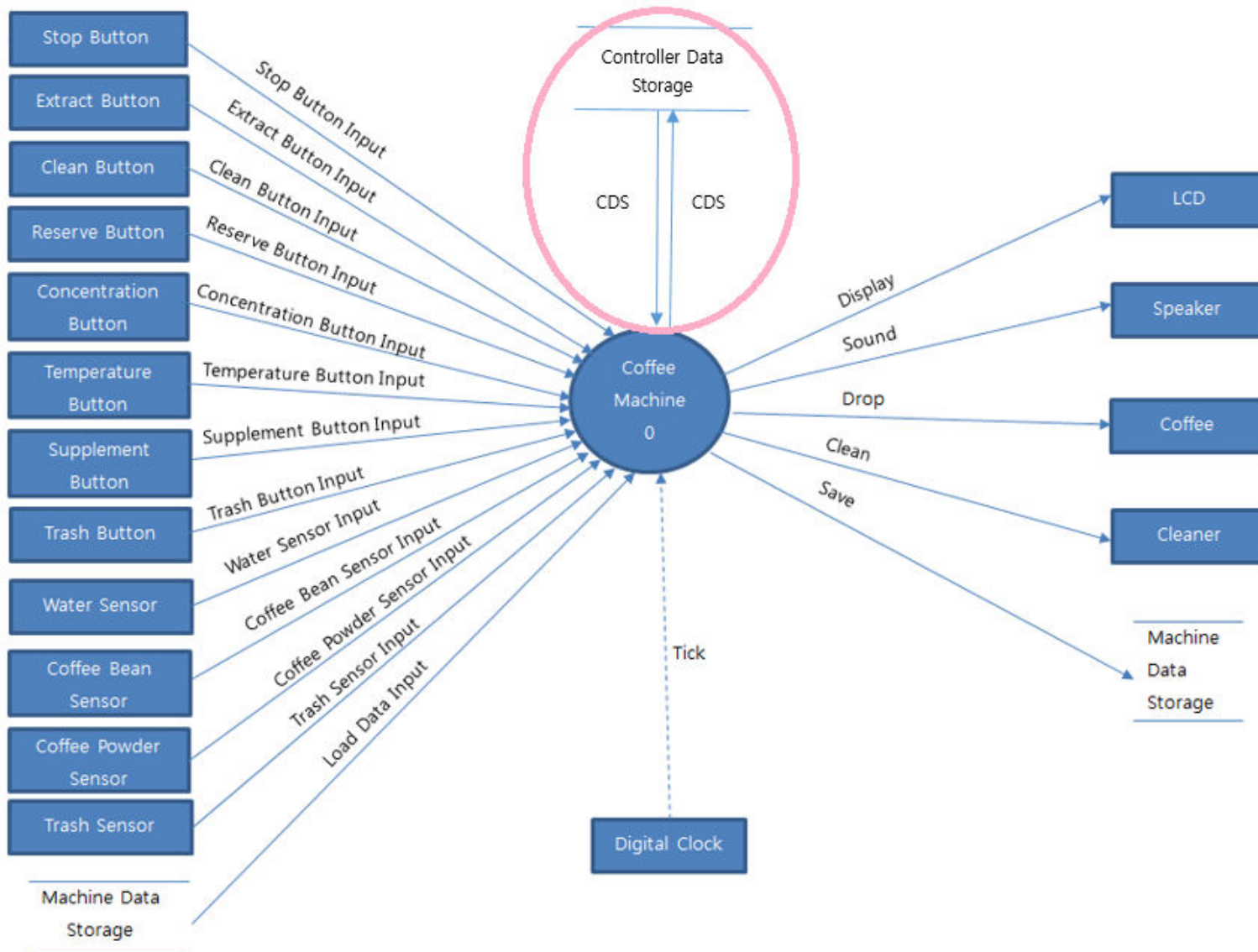
Coffee Machine System



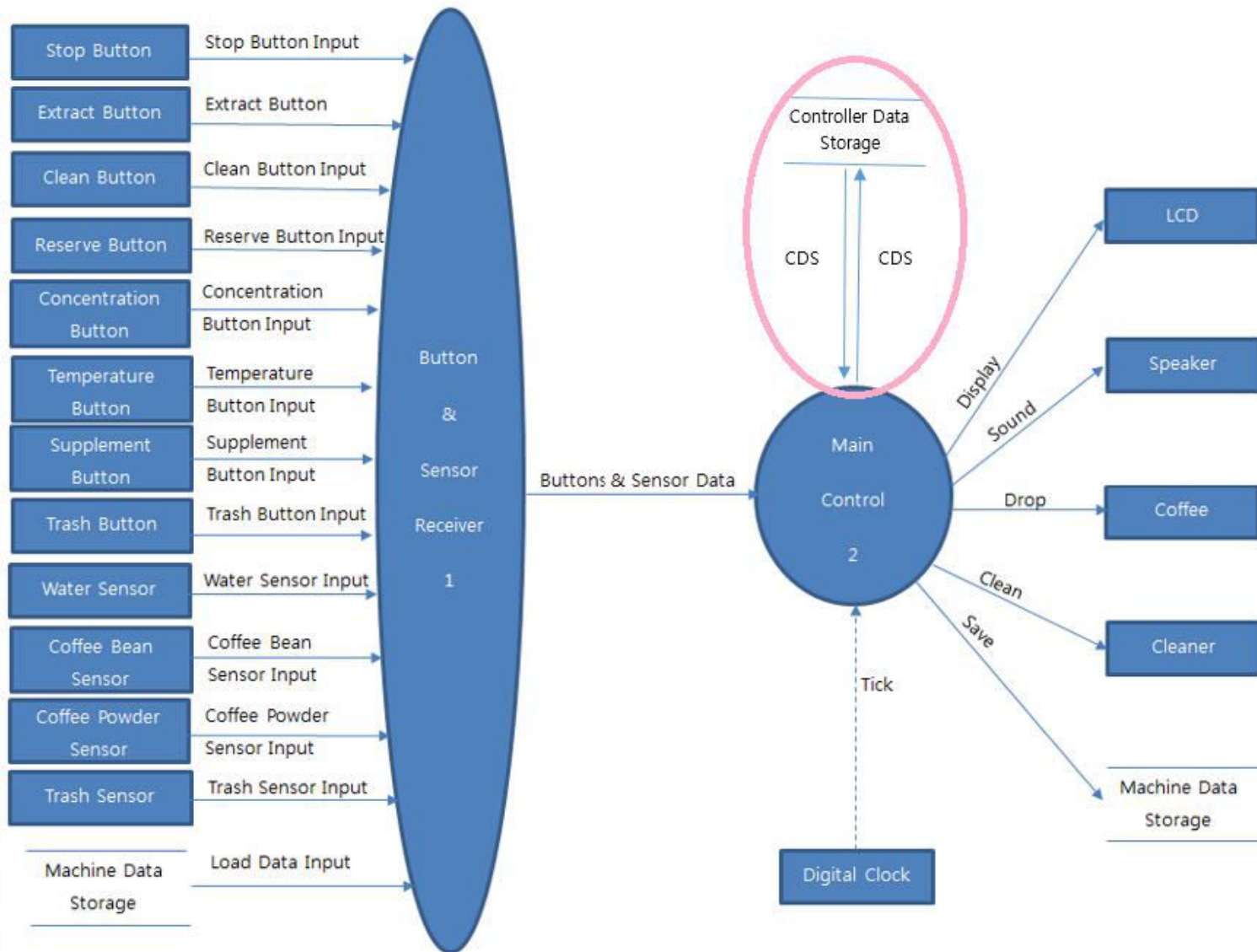
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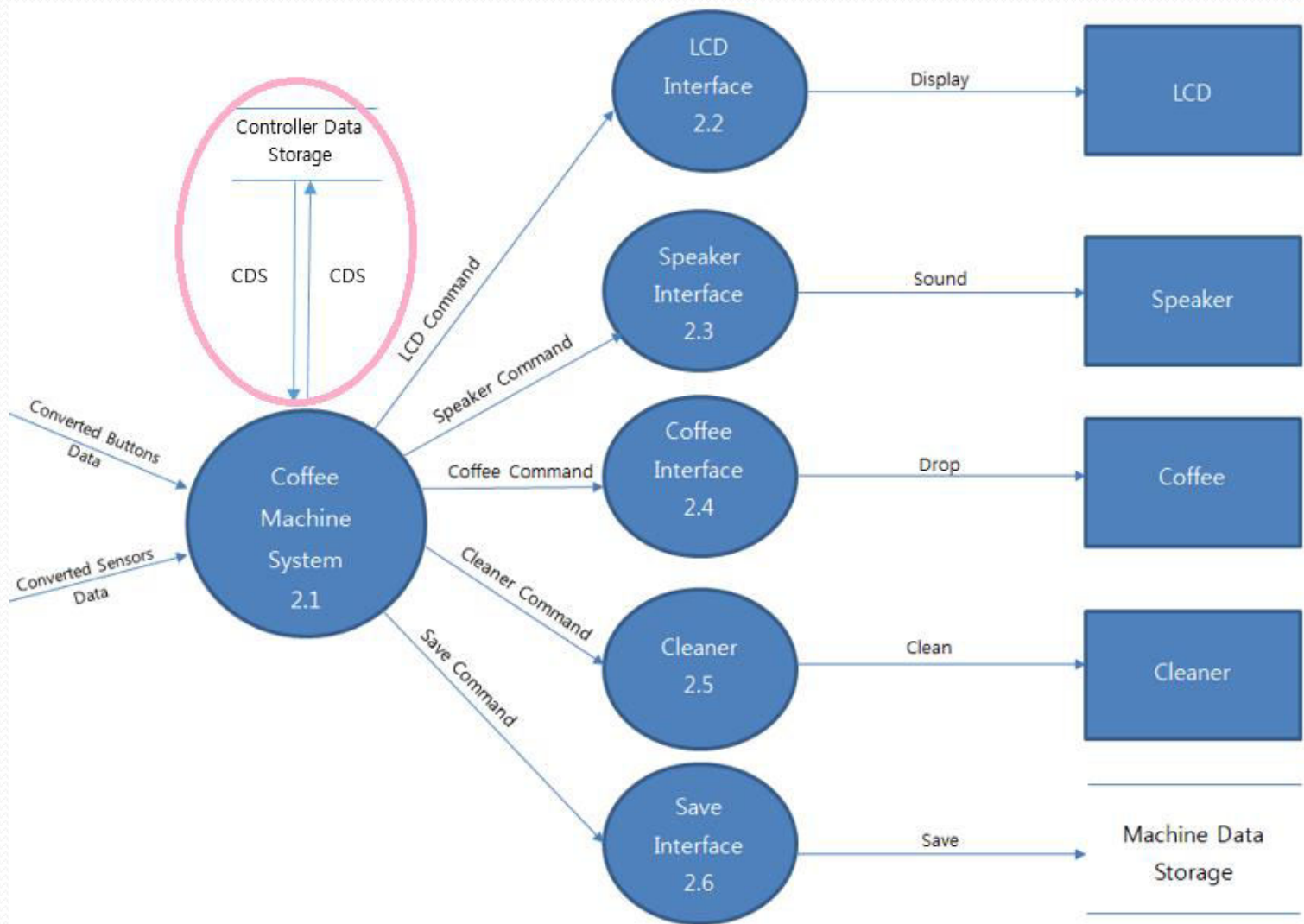
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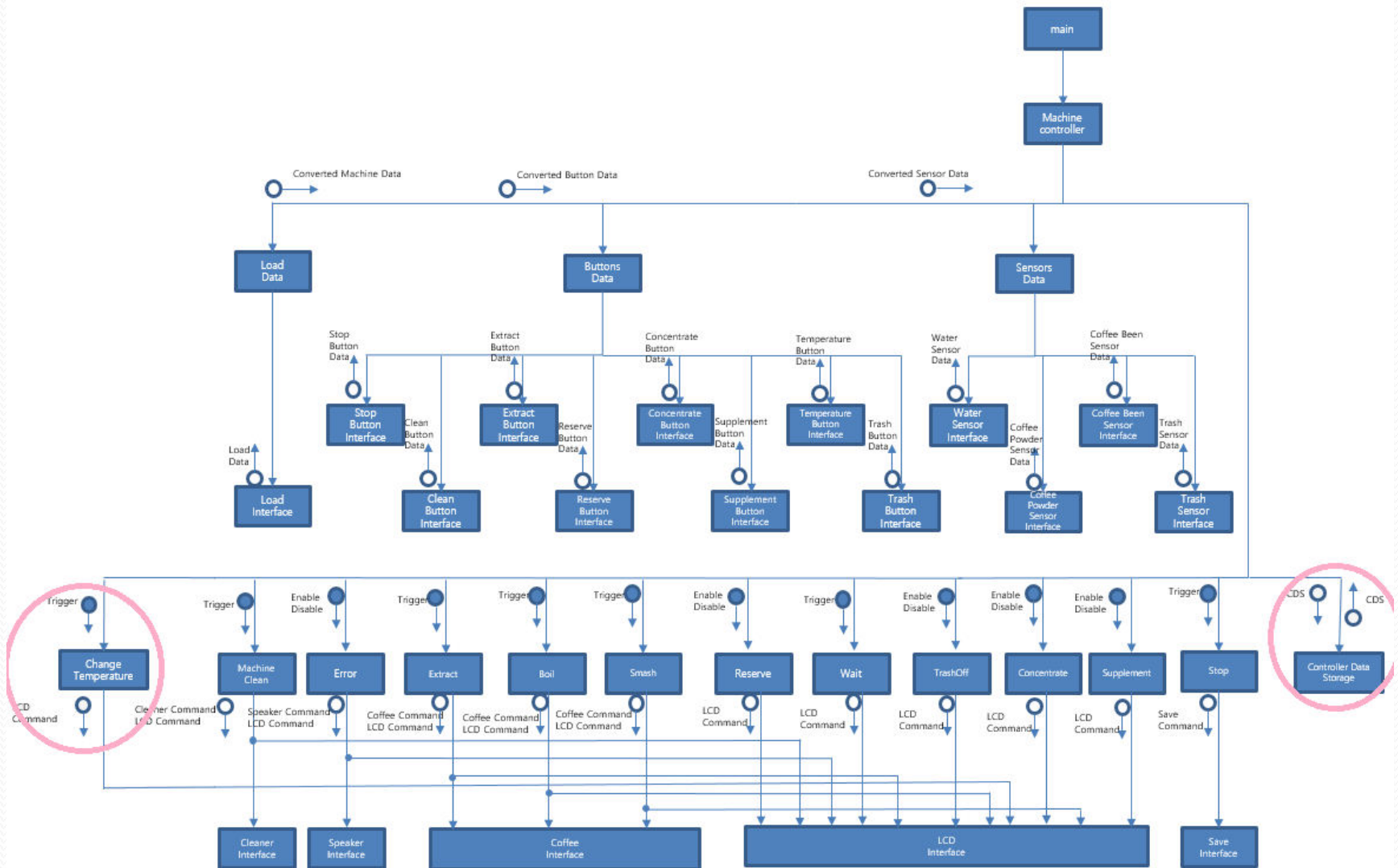
Coffee Machine System



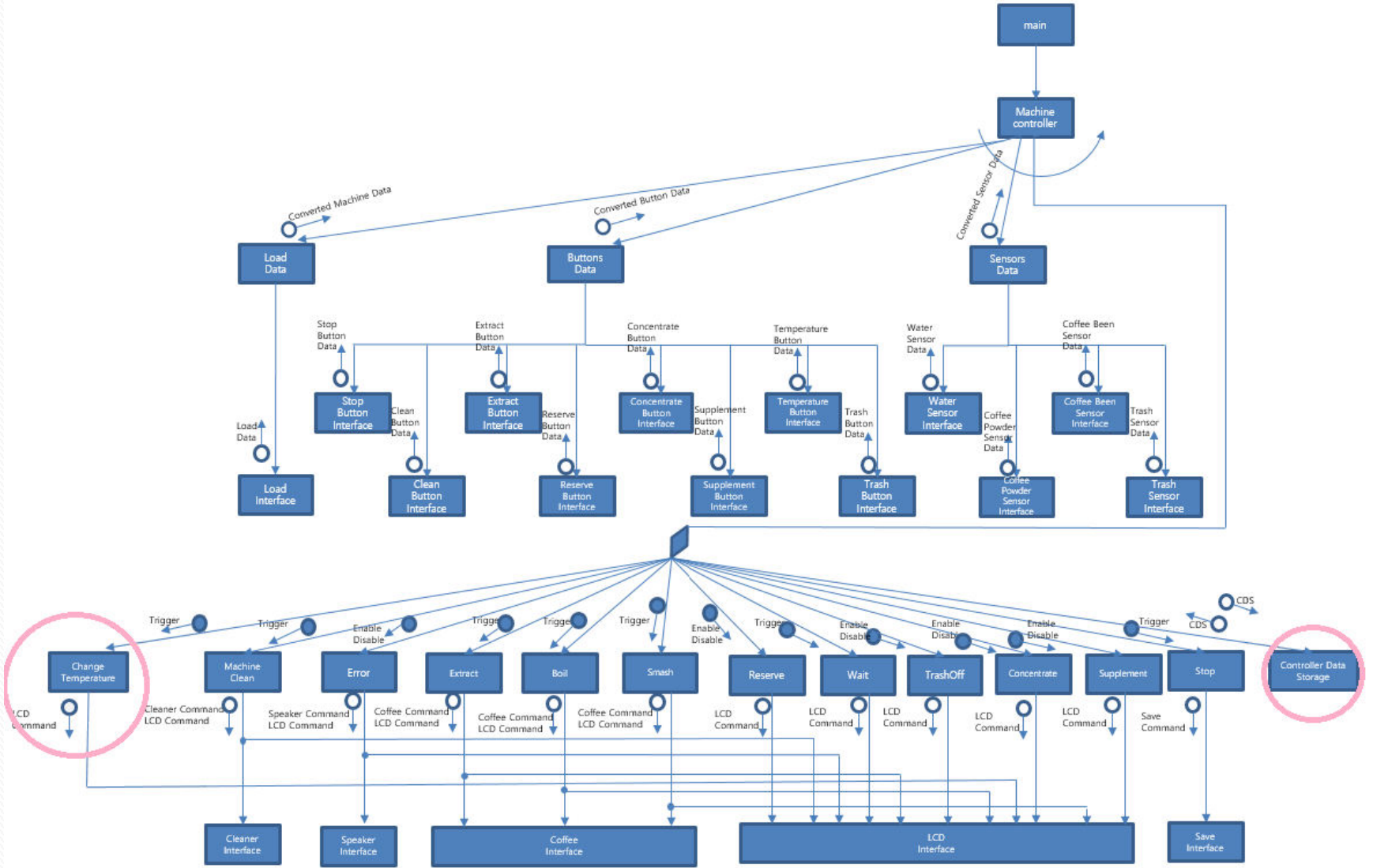
Coffee Machine System



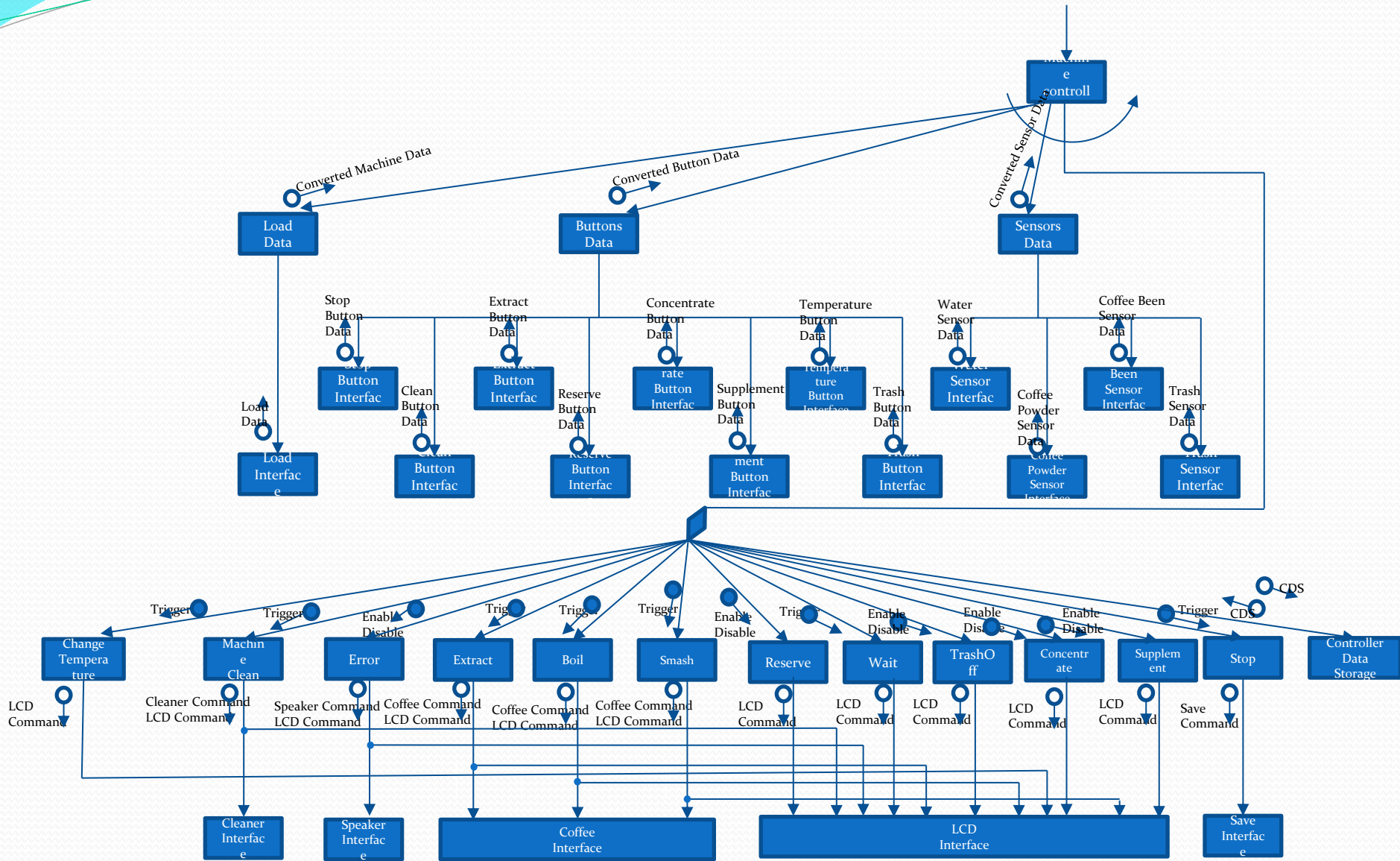
Coffee Machine System



Coffee Machine System



Coffee Machine System



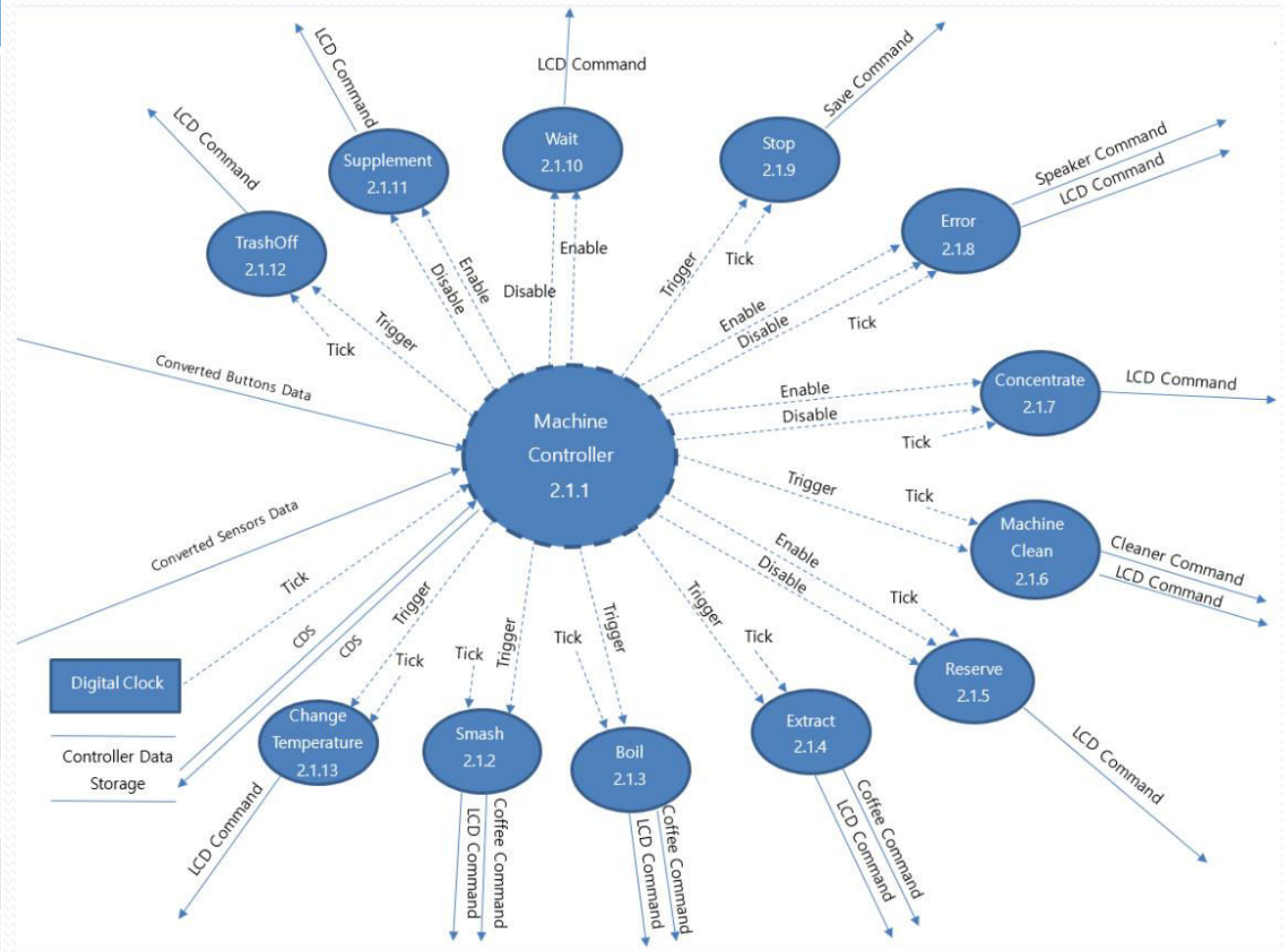
References

[2016SE_B][T1]SA_Ver 3.0
Process specification
DFD

[2016SE_B][T1]SD_Ver 2.0
Process specification
Struct Chart

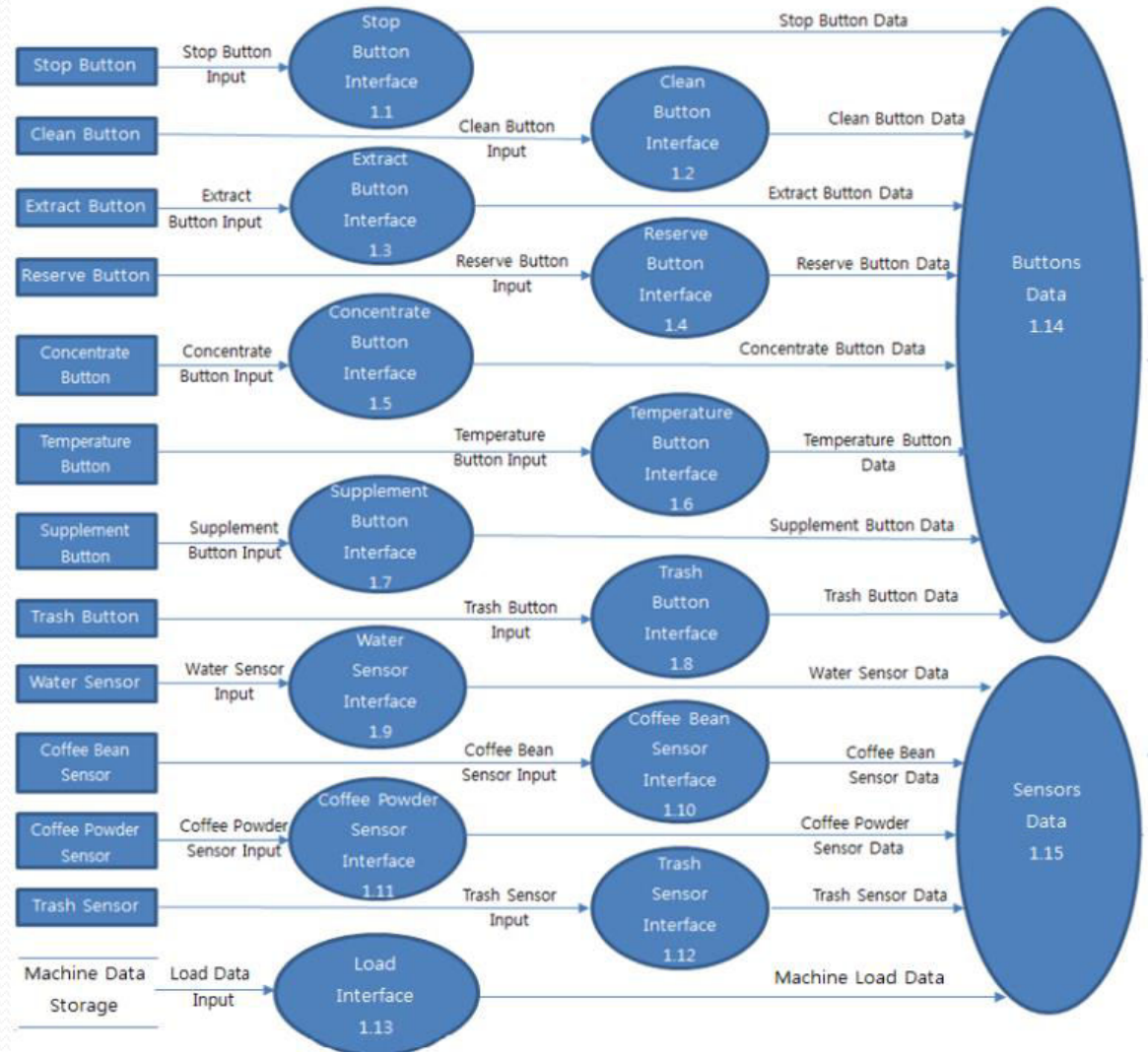
Features to be tested

ID	Name
2.1.1	Machine Controller
2.1.2	Smash
2.1.3	Boil
2.1.4	Extract
2.1.5	Reserve
2.1.6	Machine Clean
2.1.7	Concentrate
2.1.8	Error
2.1.9	Stop
2.1.11	Supplement
2.1.12	Trash Off
2.1.13	Temperature_Change



Features not to be tested

ID	Name
1.1	Stop Button Interface
1.2	Clean Button Interface
1.3	Extact Button Interface
1.4	Reserve Button Interface
1.5	Concentrate Button Interface
1.7	Supplement Button Interface
1.8	Trash Button Interface
1.9	Water Sensor Interface
1.10	Coffee Bean Sensor Interface
1.11	Coffee Powder Sensor Interface
1.12	Trash Sensor Interface
1.13	Bttons Data
1.14	Sensors Data
2.1.10	Wait
2.2	LCD Interface
2.3	Speaker Interface
2.4	Coffee Interface
2.5	Cleaner Interface
2.6	Save Interface



Test Identification

(Machine Controller)

Identifier	Feature(Process DFD)	Input Specification
CMS_UTD _2.1.1_000_0	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0 converted_Sensors_Data -> cSD_vWater : 100 controller_Data_Storage ->nWater : 200
CMS_UTD _2.1.1_000_1	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0 converted_Sensors_Data -> cSD_vWater : 500 controller_Data_Storage ->nWater : 200 converted_Sensors_Data ->cSD_isTrash : true
CMS_UTD _2.1.1_000_2	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0 converted_Sensors_Data -> cSD_vWater : 500 controller_Data_Storage ->nWater : 200 converted_Sensors_Data ->cSD_isTrash : false converted_Sensors_Data ->cSD_vBean : 0 converted_Sensors_Data ->cSD_vPowder : 0

Test Identification

(Machine_Controller)

CMS_UTD _2.1.1_000_3	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 1 converted_Sensors_Data -> cSD_vWater : 100
CMS_UTD _2.1.1_001	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0
CMS_UTD _2.1.1_002	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0
CMS_UTD _2.1.1_003	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0
CMS_UTD _2.1.1_004	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 1
CMS_UTD _2.1.1_005	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 2
CMS_UTD _2.1.1_006	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 3
CMS_UTD _2.1.1_007	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 4
CMS_UTD _2.1.1_008	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 5
CMS_UTD _2.1.1_009	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 6
CMS_UTP _2.1.1_010	2.1.1 Machine_Controller	controller_Data_Storage->when : -1 converted_Buttons_Data->isStop : true

Test Identification

(Smash & Boil)

CMS_UTD _2.1.2_000	2.1.2 Smash	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vBean : 10 converted_Sensors_Data -> cSD_vPowder : 0 lcd_Command->code : 1
CMS_UTD _2.1.2_001	2.1.2 Smash	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vBean : 10 converted_Sensors_Data -> cSD_vPowder : 10 lcd_Command->code : 1
CMS_UTD _2.1.3_000	2.1.3 Boil	controller_Data_Storage->when : -1 controller_Data_Storage->isHot : true controller_Data_Storage->boiled : false lcd_Command->code : 2
CMS_UTD _2.1.3_001	2.1.3 Boil	controller_Data_Storage->when : -1 controller_Data_Storage->isHot : false lcd_Command->code : 2

Test Identification

(Extract & Reserve)

CMS_UTD _2.1.4_000	2.1.4 Extract	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vPowder : 10 converted_Sensors_Data -> cSD_vWater : 500 controller_Data_Storage ->nWater : 200 lcd_Command->code : 3
CMS_UTD _2.1.5_000	2.1.5 Reserve	controller_Data_Storage->when : -1 Input_select input : 1 Input_h input: 2 Input_m input : 30
CMS_UTD _2.1.5_001	2.1.5 Reserve	controller_Data_Storage->when : -1 Input_select input : 2 Input_h input: 3 Input_m input : 40
CMS_UTD _2.1.5_002	2.1.5 Reserve	controller_Data_Storage->when : -1 Input_select input : 2 Input_h input: 3 Input_m input : 91
CMS_UTD _2.1.5_002	2.1.5 Reserve	controller_Data_Storage->when : -1 Input_select input : 2 Input_h input: 30 Input_m input : 50

Test Identification

(Machine Clean & Concentrate & Clean)

CMS_UTD _2.1.6_000	2.1.6 Machine Clean	controller_Data_Stroage->when : -1 converted_Sensors_Data -> cSD_vWater : 500 lcd_Command->code : 5
CMS_UTD _2.1.7_000	2.1.7 Concentrate	controller_Data_Stroage->when : -1 lcd_Command->code : 6 concentrate input : 2
CMS_UTD _2.1.7_001	2.1.7 Concentrate	controller_Data_Stroage->when : -1 lcd_Command->code : 6 concentrate input : 8
CMS_UTD _2.1.9_000	2.1.9 Stop	controller_Data_Stroage->when : -1 converted_Sensors_Data -> cSD_vWater : 500 converted_Sensors_Data -> cSD_vBean : 10 converted_Sensors_Data -> cSD_vPowder : 10 converted_Sensors_Data -> cSD_isTrash : false

Test Identification

(Supplement)

CMS_UTD _2.1.11_000	2.1.11 Supplement	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vBean : 0 input1 input : 1 input2 input : 10
CMS_UTD _2.1.11_001	2.1.11 Supplement	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vPowder : 0 input1 input : 2 input2 input : 10
CMS_UTD _2.1.11_002	2.1.11 Supplement	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vWater : 0 input1 input : 3 input2 input : 300
CMS_UTD _2.1.11_003	2.1.11 Supplement	controller_Data_Storage->when : -1 input1 input : 5
CMS_UTD _2.1.11_004	2.1.11 Supplement	controller_Data_Storage->when : -1 input1 input : 1 input2 input : 1000
CMS_UTD _2.1.11_005	2.1.11 Supplement	controller_Data_Storage->when : -1 input1 input : 2 input2 input : 200
CMS_UTD _2.1.11_006	2.1.11 Supplement	controller_Data_Storage->when : -1 input1 input : 3 input2 input : 2000

Test Identification

(Trash Off & Change Temperature)

CMS_UTD _2.1.12_000	2.1.12 TrashOff	controller_Data_Storange->when : -1 converted_Sensors_Data -> cSD_isTrash : true
CMS_UTD _2.1.12_001	2.1.12 TrashOff	controller_Data_Storange->when : -1 converted_Sensors_Data -> cSD_isTrash : false
CMS_UTD _2.1.13_000	2.1.13 Change Temperature	controller_Data_Storange->when : -1 controller_Data_Storange->isHot : false
CMS_UTD _2.1.13_001	2.1.13 Change Temperature	controller_Data_Storange->when : -1 controller_Data_Storange->isHot : true

Test Case Specification

Identifier	Input Specification	Output Specification
CMS_UTD _2.1.1_000_0	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0 converted_Sensors_Data -> cSD_vWater : 100 controller_Data_Storage ->nWater : 200	lcd_Command->code : 7 Call Error
CMS_UTD _2.1.1_000_1	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0 converted_Sensors_Data -> cSD_vWater : 500 controller_Data_Storage ->nWater : 200 converted_Sensors_Data ->cSD_isTrash : true	lcd_Command->code : 13 Call Error
CMS_UTD _2.1.1_000_2	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0 converted_Sensors_Data -> cSD_vWater : 500 controller_Data_Storage ->nWater : 200 converted_Sensors_Data ->cSD_isTrash : false converted_Sensors_Data ->cSD_vBean : 0 converted_Sensors_Data ->cSD_vPowder : 0	lcd_Command->code : 12 Call Error

Test Case Specification

CMS_UT D _2.1.1_000 -3	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 1 converted_Sensors_Data -> cSD_vWater : 100	lcd_Command->code : 7 Call Error
CMS_UT D _2.1.1_001	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0	lcd_Command->code : 1 Call Smash
CMS_UT D _2.1.1_002	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0	lcd_Command->code : 2 Call Boil
CMS_UT D _2.1.1_003	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 0	lcd_Command->code : 3 Call Extract
CMS_UT D _2.1.1_004	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 1	lcd_Command->code : 5 Call Machine Clean
CMS_UT D _2.1.1_005	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 2	lcd_Command->code : 6 Call Concentrate
CMS_UT D _2.1.1_006	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 3	lcd_Command->code : 9 Call Supplement
CMS_UT D _2.1.1_007	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 4	lcd_Command->code : 10 Call Trash_Off
CMS_UT D _2.1.1_008	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : 5	lcd_command->code: 4 Call Reserve

Test Case Specification

CMS_UTD _2.1.2_001	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vBean : 10 converted_Sensors_Data -> cSD_vPowder : 0 lcd_Command->code : 1	converted_Buttons_Data->mode : 0 controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vBean : 0 converted_Sensors_Data -> cSD_vPowder : 10
CMS_UTD _2.1.2_002	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vBean : 10 converted_Sensors_Data -> cSD_vPowder : 10 lcd_Command->code : 1	Smash 실행 안함
CMS_UTD _2.1.3_000	controller_Data_Storage->when : -1 controller_Data_Storage->isHot : true controller_Data_Storage->boiled : false lcd_Command->code : 2	controller_Data_Storage->when : -1 controller_Data_Storage-> isHot : false controller_Data_Storage-> boiled : true
CMS_UTD _2.1.3_001	controller_Data_Storage->when : -1 controller_Data_Storage->isHot : false lcd_Command->code : 2	boil 실행 안함

Test Case Specification

CMS_UTD _2.1.4_000	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vPowder : 10 converted_Sensors_Data -> cSD_vWater : 500 controller_Data_Storage ->nWater : 200 lcd_Command->code : 3	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vPowder : 10 converted_Sensors_Data -> cSD_vWater : 300 controller_Data_Storage ->nWater : 200 lcd_Command->code : 3
CMS_UTD _2.1.5_000	controller_Data_Storage->when : -1 Input_select input : 1 Input_h input: 2 Input_m input : 30	controller_Data_Storage-> Input_select : 0
CMS_UTD _2.1.5_001	controller_Data_Storage->when : -1 Input_select input : 2 Input_h input: 3 Input_m input : 40	controller_Data_Storage-> Input_select : 1
CMS_UTD _2.1.5_002	controller_Data_Storage->when : -1 Input_select input : 2 Input_h input: 3 Input_m input : 91	재입력 요청
CMS_UTD _2.1.5_002	controller_Data_Storage->when : -1 Input_select input : 2 Input_h input: 30 Input_m input : 50	재입력 요청

Test Case Specification

CMS_UTD_2.1.6_000	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vWater : 500 lcd_Command->code : 5	converted_Buttons_Data->mode : -1 controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vWater : 0 lcd_Command->code : 8
CMS_UTD_2.1.7_000	controller_Data_Storage->when : -1 lcd_Command->code : 6 concentrate input : 2	converted_Buttons_Data->mode : -1 controller_Data_Storage->when : -1 lcd_Command->code : 8 controller_Data_Storage-> nWater : 200
CMS_UTD_2.1.7_001	controller_Data_Storage->when : -1 lcd_Command->code : 6 concentrate input : 8	Concentrate input 재입력 요구
CMS_UTD_2.1.9_000	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vWater : 500 converted_Sensors_Data -> cSD_vBean : 10 converted_Sensors_Data -> cSD_vPowder : 10 converted_Sensors_Data -> cSD_isTrash : false	save_command->vWater : 500 save_command->vBean :10 save_command->vPowder :10 save_command->isTrash : false
CMS_UTD_2.1.11_000	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vBean : 0 input1 input : 1 input2 input : 10	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : -1 converted_Sensors_Data -> cSD_vBean : 10

Test Case Specification

CMS_UTD _2.1.11_001	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vPowder : 0 input1 input : 2 input2 input : 10	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : -1 converted_Sensors_Data -> cSD_vPowder : 10
CMS_UTD _2.1.11_002	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_vWater : 0 input1 input : 3 input2 input : 300	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : -1 converted_Sensors_Data -> cSD_vWater : 300
CMS_UTD _2.1.11_003	controller_Data_Storage->when : -1 input1 input : 5	실행 되지만 변하는 값 없음 converted_Buttons_Data->mode : -1
CMS_UTD _2.1.11_004	controller_Data_Storage->when : -1 input1 input : 1 input2 input : 1000	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : -1 converted_Sensors_Data -> cSD_vBean : 100
CMS_UTD _2.1.11_005	controller_Data_Storage->when : -1 input1 input : 2 input2 input : 200	controller_Data_Storage->when : -1 converted_B uttons_Data->mode : -1 converted_Sensors_Data -> cSD_vPowder : 10
CMS_UTD _2.1.11_006	controller_Data_Storage->when : -1 input1 input : 3 input2 input : 2000	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : -1 converted_Sensors_Data -> cSD_vWater : 1000

Test Case Specification

CMS_UTD _2.1.12_000	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_isTrash : true	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : -1 converted_Sensors_Data -> cSD_isTrash : false lcd_command->code : 8
CMS_UTD _2.1.12_001	controller_Data_Storage->when : -1 converted_Sensors_Data -> cSD_isTrash : false	Trash_Off가 실행되지 않음 converted_Buttons_Data->mode : -1
CMS_UTD _2.1.13_000	controller_Data_Storage->when : -1 controller_Data_Storage->isHot : false	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : -1 controller_Data_Storage-> isHot : true lcd_Command->code : 8
CMS_UTD _2.1.13_001	controller_Data_Storage->when : -1 controller_Data_Storage->isHot : true	controller_Data_Storage->when : -1 converted_Buttons_Data->mode : -1 controller_Data_Storage-> isHot : false lcd_Command->code : 8