

*2013-2 Software Engineering*  
*Team Presentation #1*

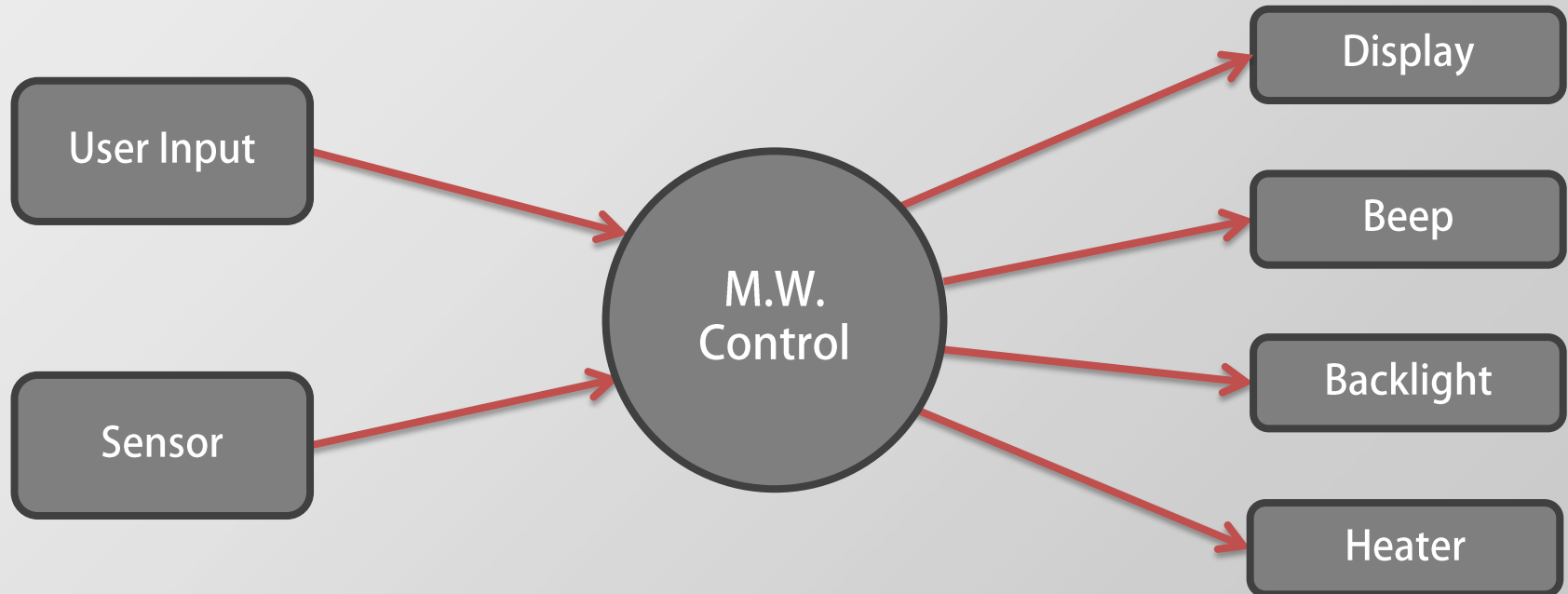
# Software Requirement Specification for Microwave Oven System

**T5 권순필 나소인 박현규 조병우**  
**2013-09-26**

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*[Lv.0 ~ Lv.4]*
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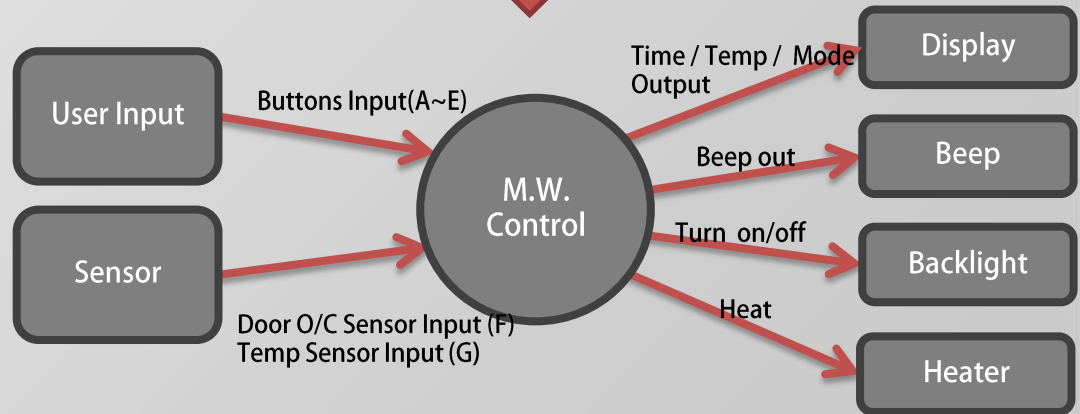
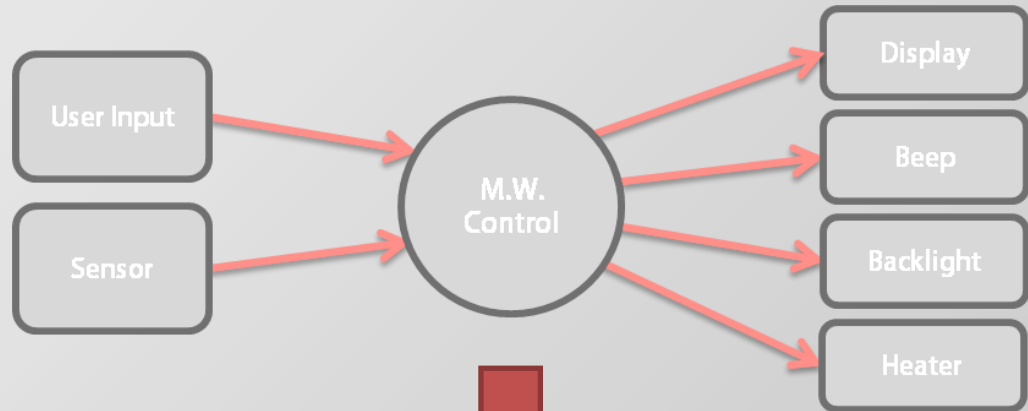
# System Context Diagram – MW



# Event List – MW

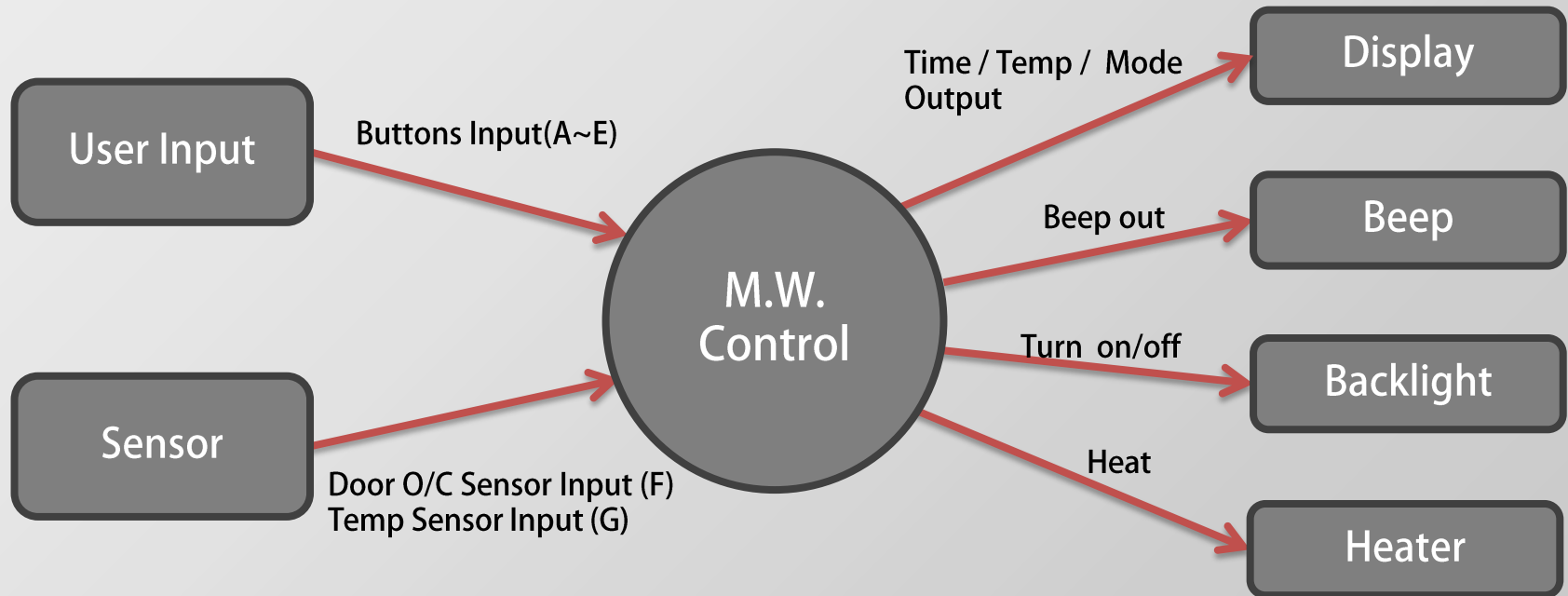
Input / Output Event		Description
<b>Button Input</b>	<b>Button A</b>	[Depending on Time/Temp Mode] Add 10sec / 10°C
	<b>Button B</b>	[Depending on Time/Temp Mode] Add 30sec / 20°C
	<b>Button C</b>	Switch the setting mode (Time ↔ Temp)
	<b>Button D</b>	Select Mode (Manual→떡→죽→국/찌개→피자→Manual)
	<b>Button E</b>	Start / Cancel
<b>Door O/C Sensor Input (F)</b>		Detects door conditions ( Open / Close ) of Microwave
<b>Temp Sensor Input (G)</b>		Detects current temperature [ Supposing that temperature goes up automatically (10°C /3sec) ]
<b>Time/Temp/Mode Output</b>		Display 1 and Display 2 show Time/Temp/Mode information <ul style="list-style-type: none"> <li>· <b>Display 1</b> : (cooking) Remaining Time / Current Temp (setting) Entered Time / Entered Temp</li> <li>· <b>Display 2</b> : Selected Mode</li> </ul>
<b>Beep Out</b>		Beep out (3sec)
<b>Turn On/Off</b>		Turn backlight on
<b>Heat</b>		Activate heater

Input / Output Event List (Abstract ver.)	
Button Input	Button A
	Button B
	Button C
	Button D
	Button E
Door O/C Sensor Input (F)	
Temp Sensor Input (G)	
-----	
Time/Temp/Mode Output	
Beep Out	
Turn On	
Heat	

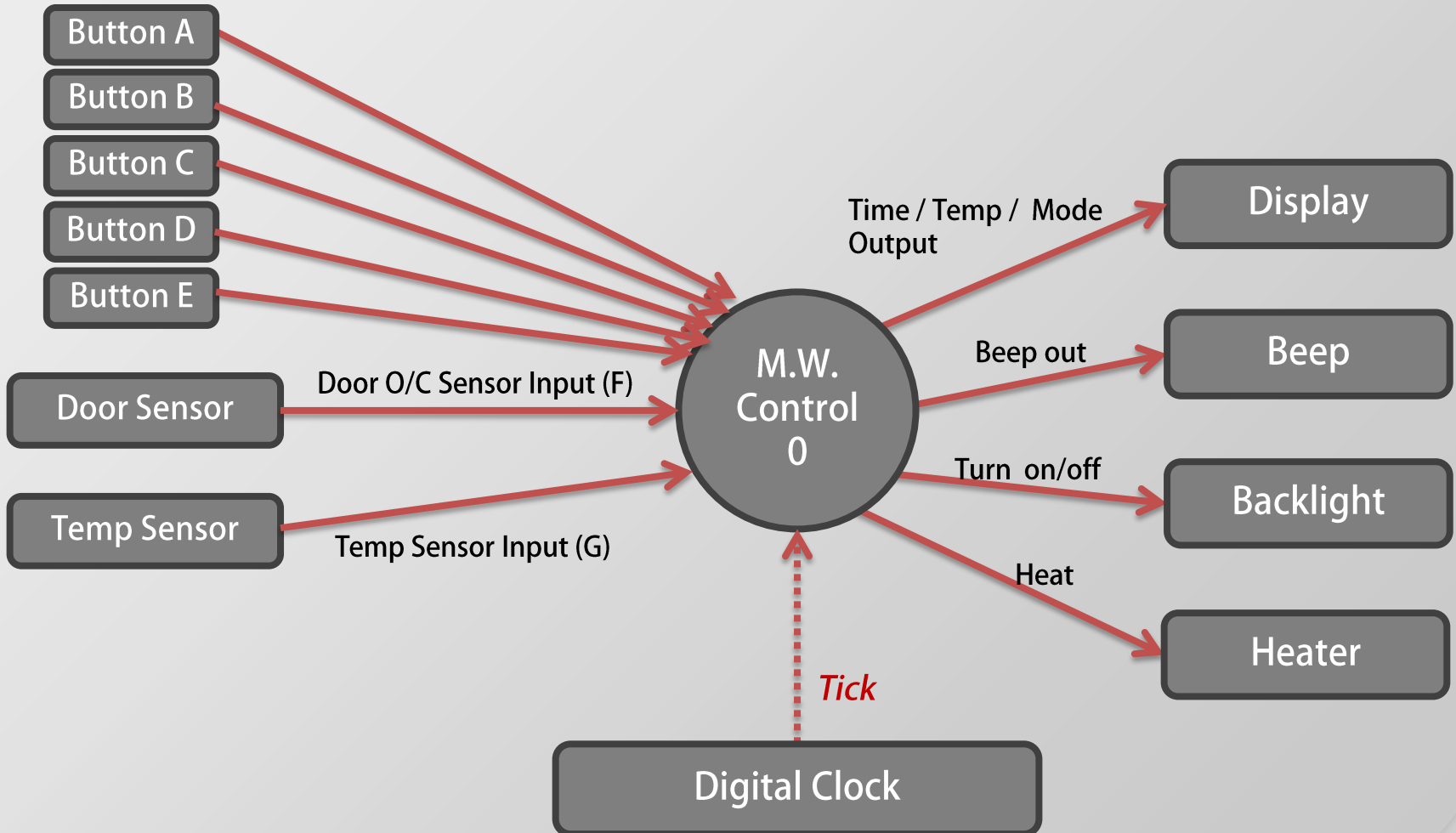


Context Diagram for M.W.

# System Context Diagram (+Event) – MW



# DFD Level 0 – MW

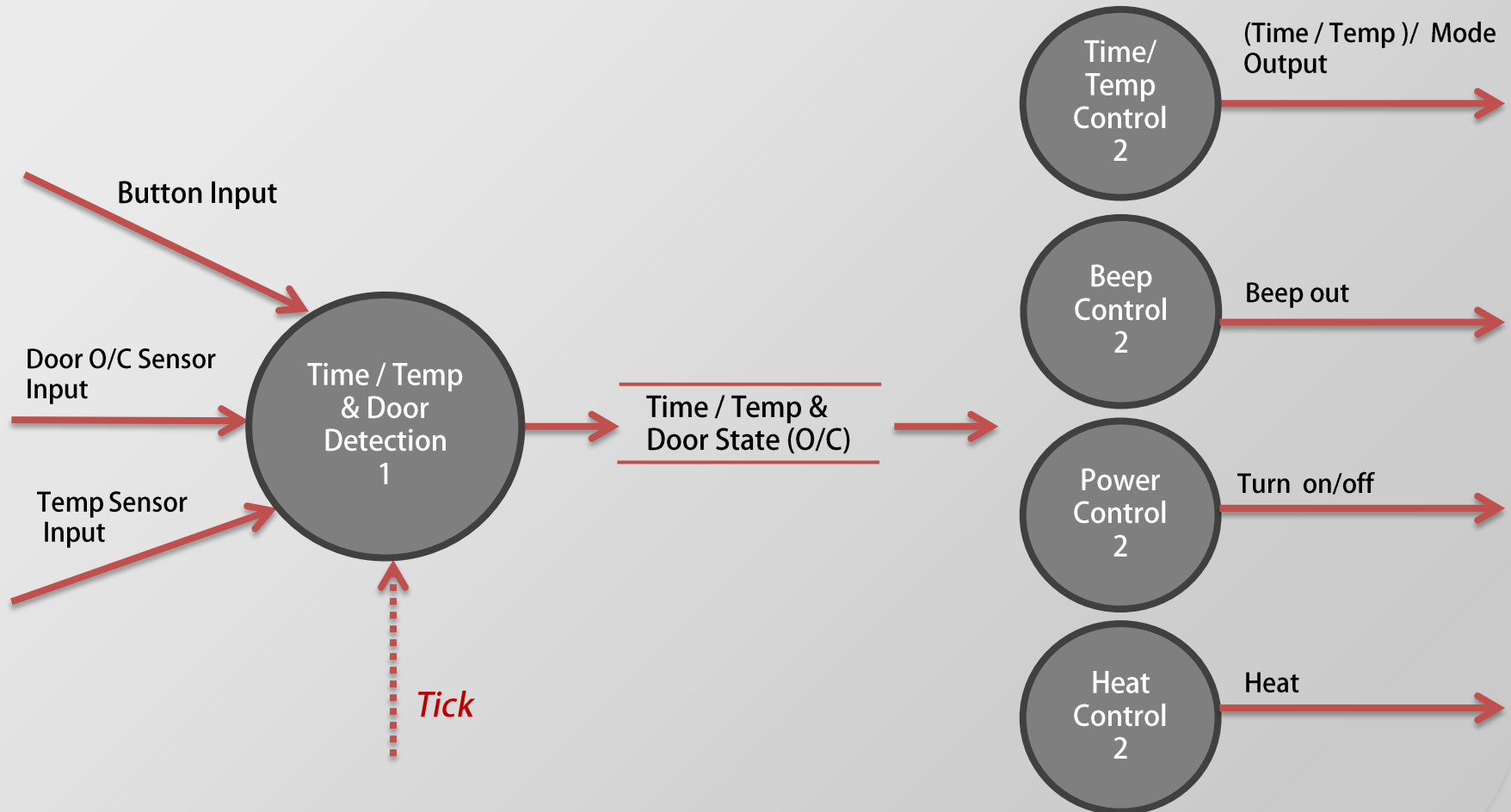


# DFD Level 0 – MW [Data Dictionary]

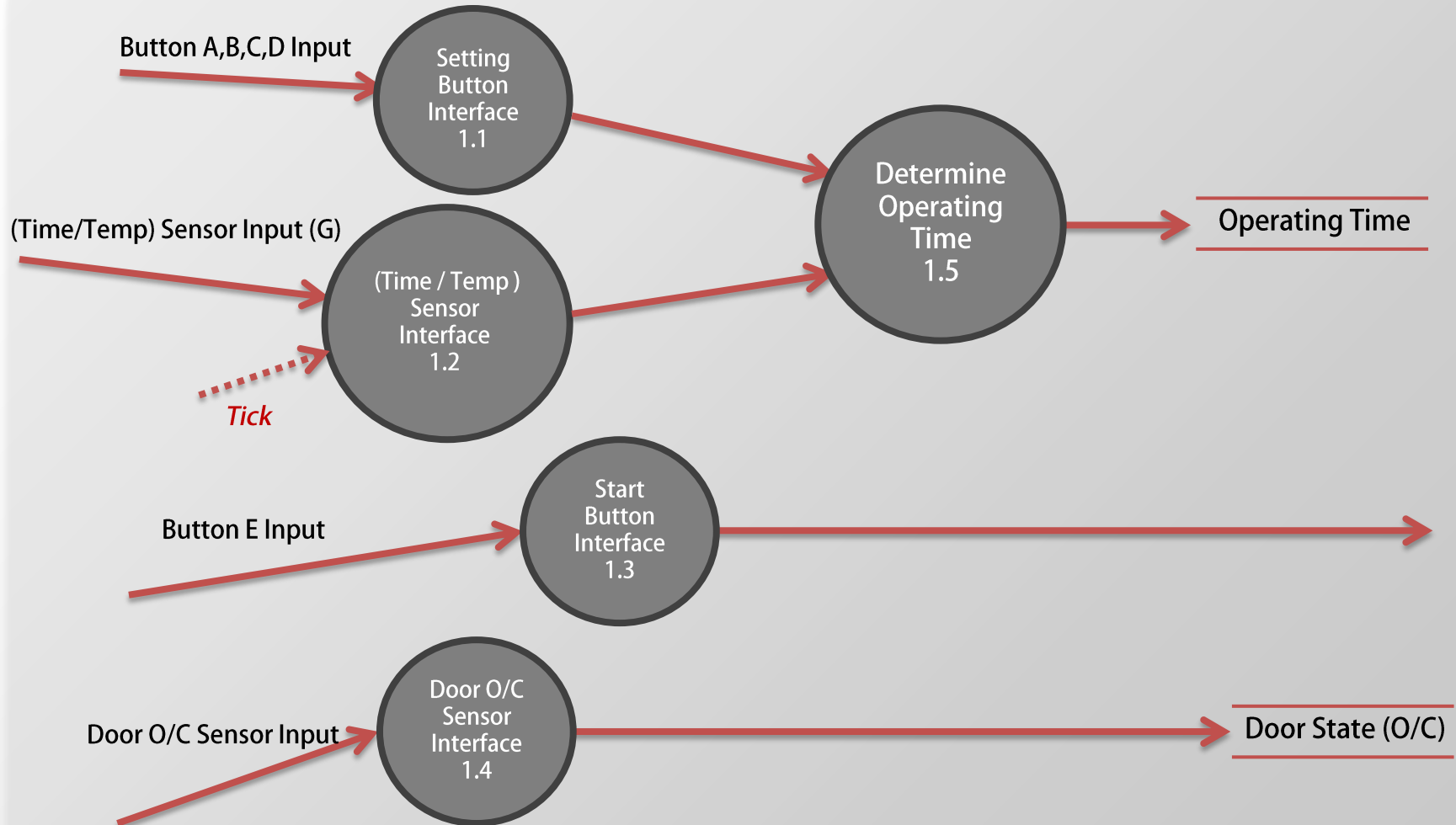
Input / Output Event		Description	Format / Type
<b>Time Tick</b>		[ tick = $x$ sec ] 1 tick 당 $x$ 초로 계산	Periodic / U_int
<b>Button Input</b>	<b>Button A</b>	Add 10sec / 10°C	Keyboard Input / U_int
	<b>Button B</b>	Add 30sec / 20°C	Keyboard Input / U_int
	<b>Button C</b>	Switch the setting mode (Time ↔ Temp)	Keyboard Input / U_int
	<b>Button D</b>	Select Mode	Keyboard Input / U_int
	<b>Button E</b>	Start / Cancel	Keyboard Input / U_int
<b>Door O/C Sensor Input (F)</b>		Detects door conditions ( Open / Close )	Keyboard Input / U_int
<b>Temp Sensor Input (G)</b>		Detects current temperature	Periodic / U_int
<b>Time/Temp/Mode Output</b>		Display 1 and Display 2 show Time/Temp/Mode info. • <b>Display 1</b> : (cooking) Remaining Time / Current Temp (setting) Entered Time / Entered Temp • <b>Display 2</b> : Selected Mode	Periodic / char
<b>Beep Out</b>		Beep out (3sec)	Interrupt / Boolean
<b>Turn On/Off</b>		Turn backlight on	Interrupt / Boolean
<b>Heat</b>		Activate heater	Interrupt / Boolean



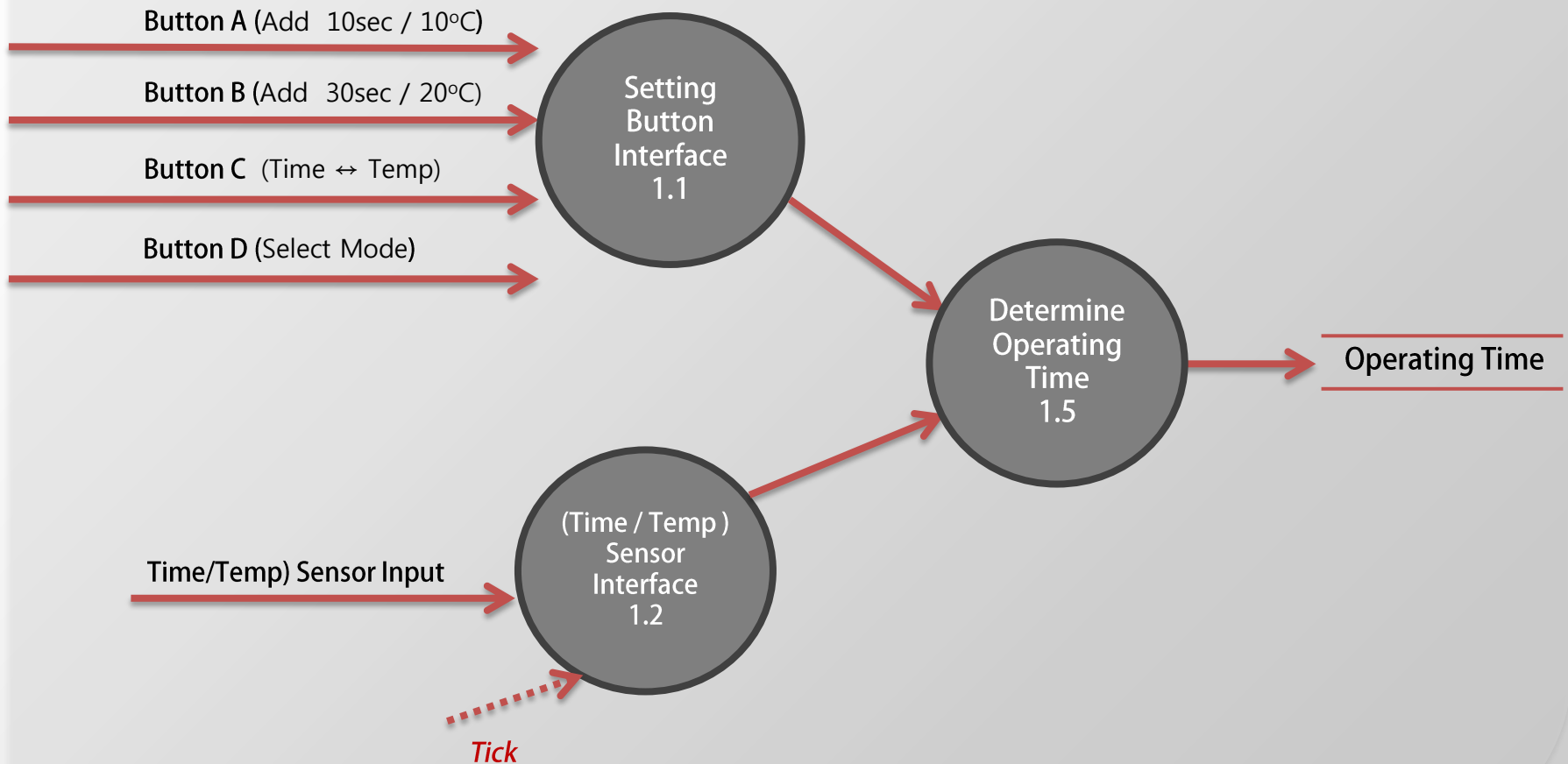
# DFD Level 1 – MW



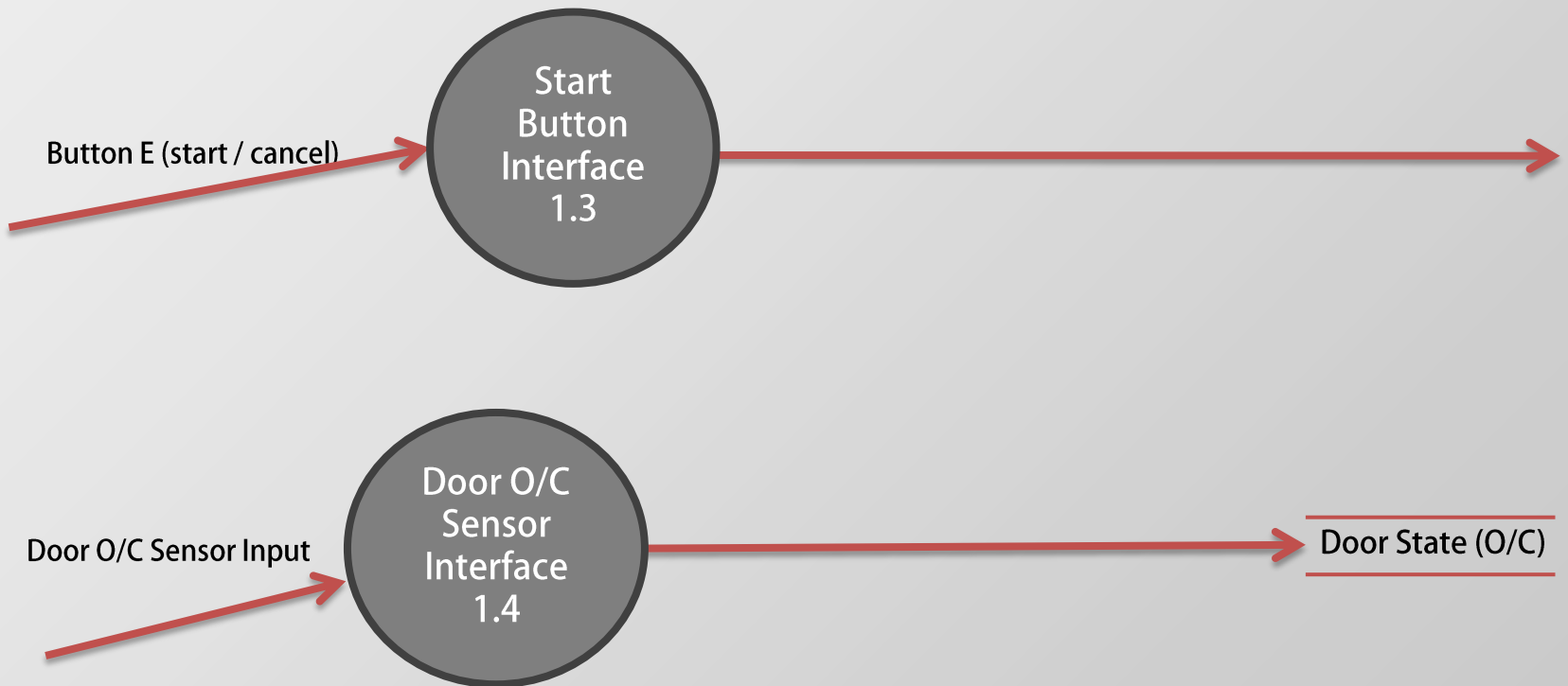
# DFD Level 2 – MW (before Control view)



# DFD Level 2 – MW (1/2 view)

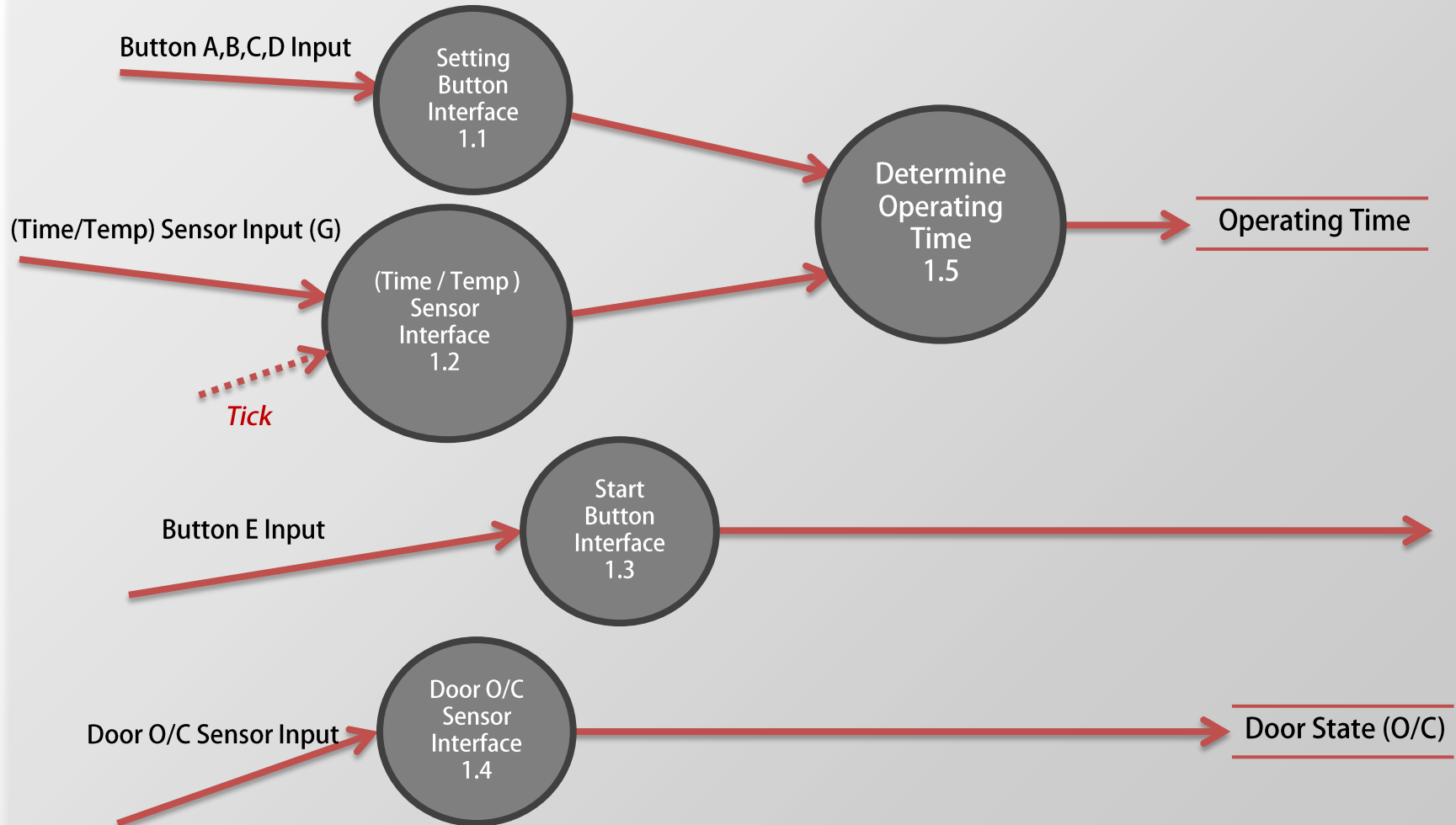


## DFD Level 2 – MW (2/2 view)

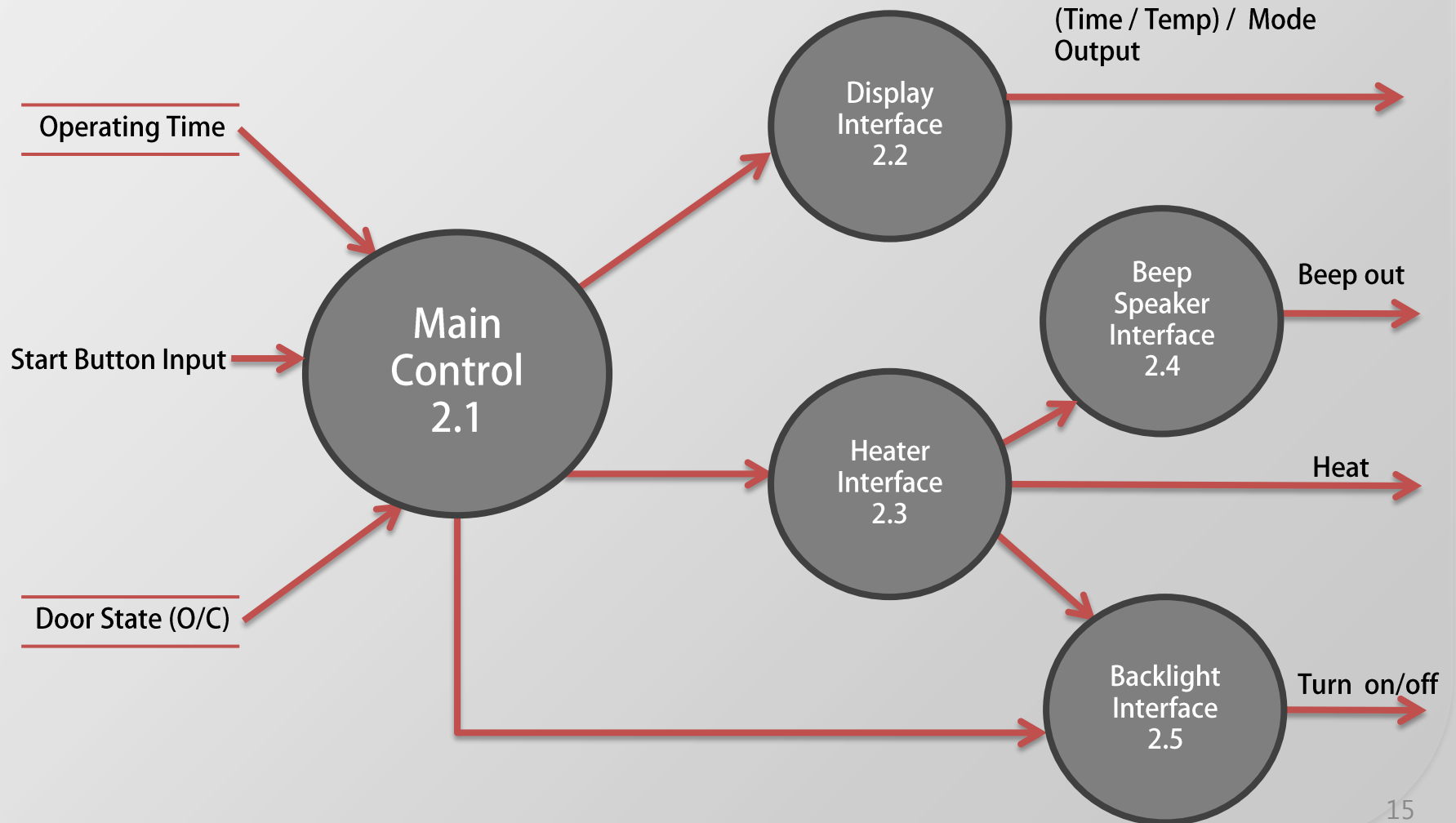


**One more time, we will show...**

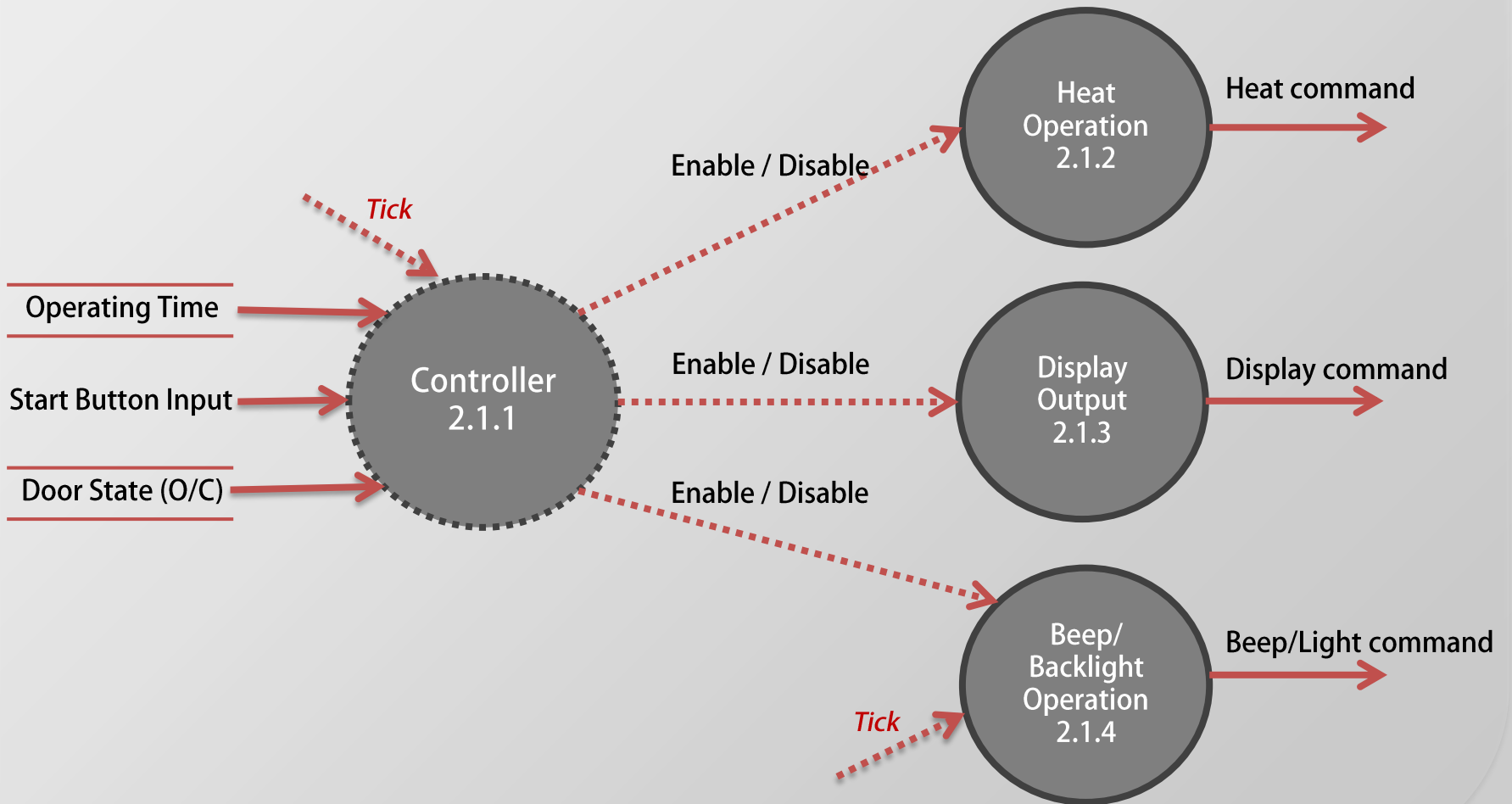
# DFD Level 2 – MW (before Control view)



# DFD Level 2 – MW (Control view)

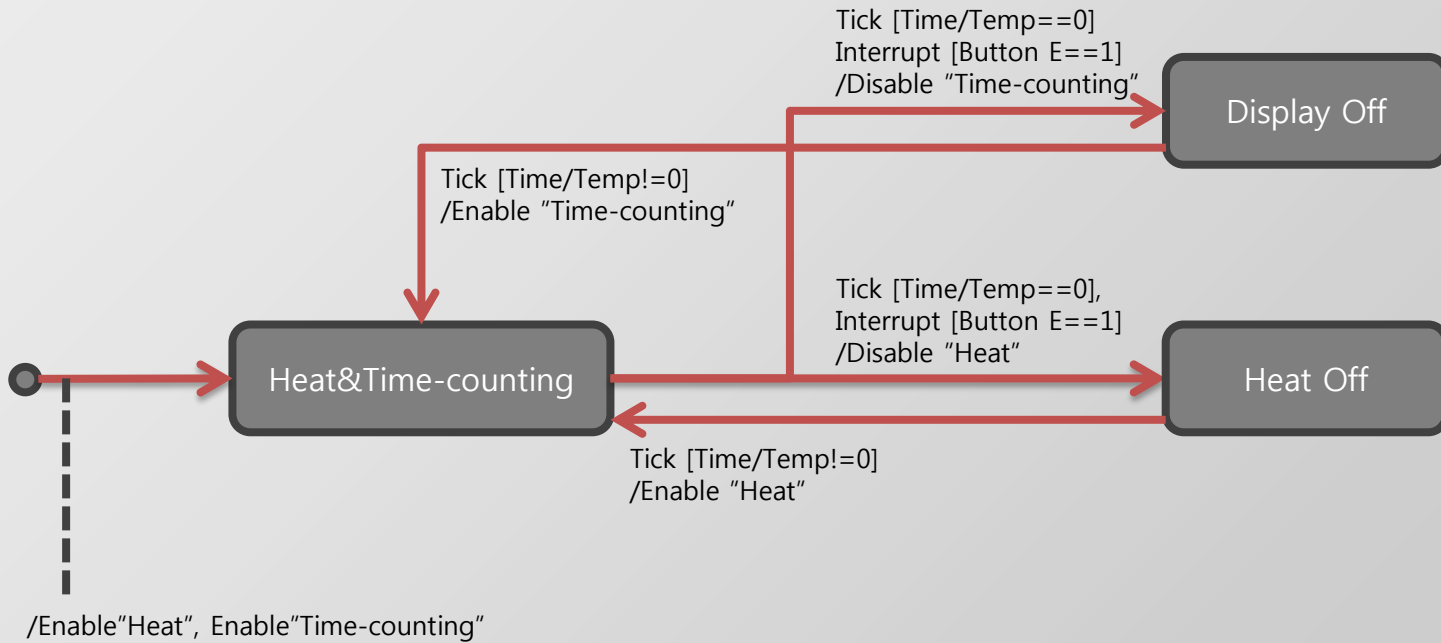


# DFD Level 3 – MW

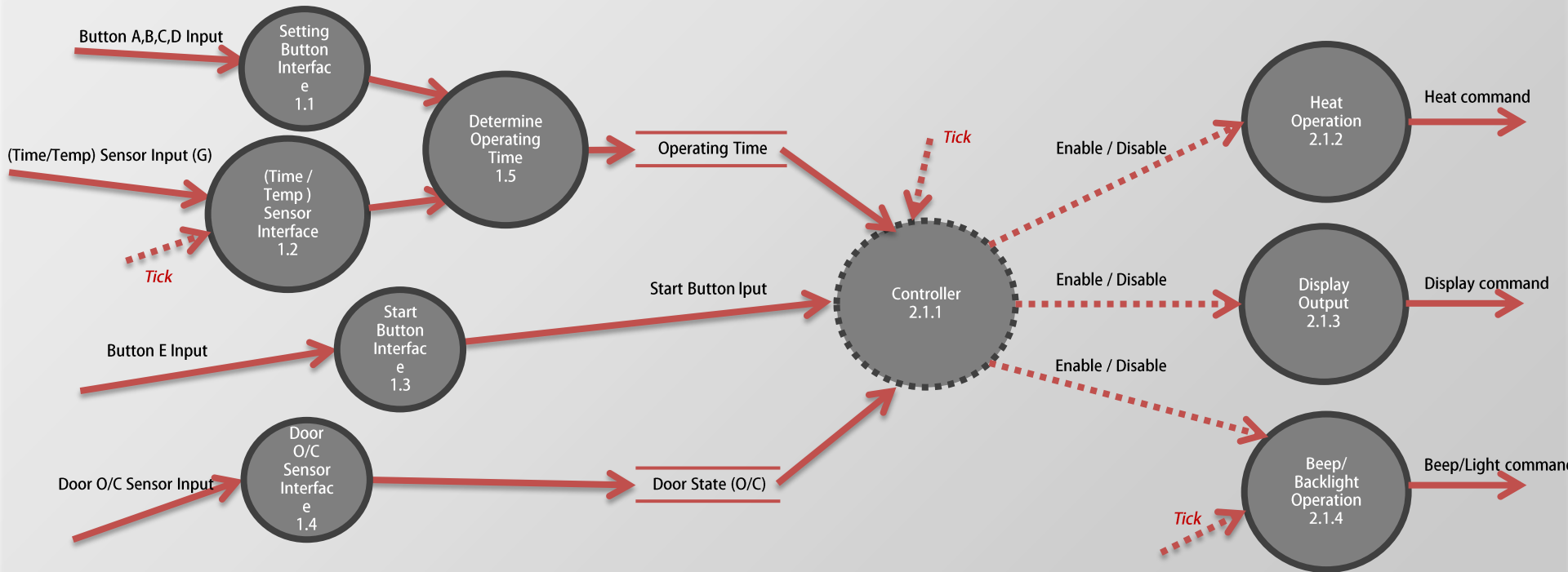




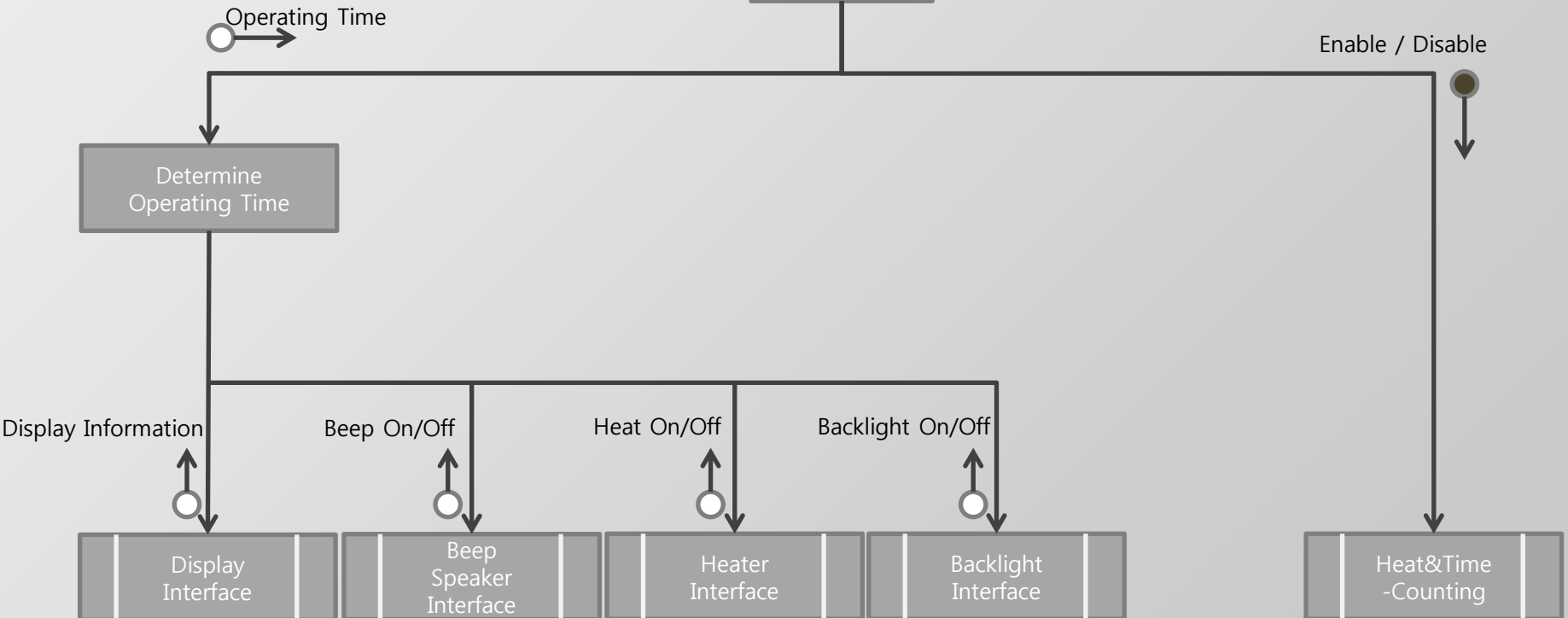
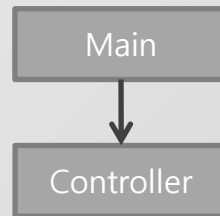
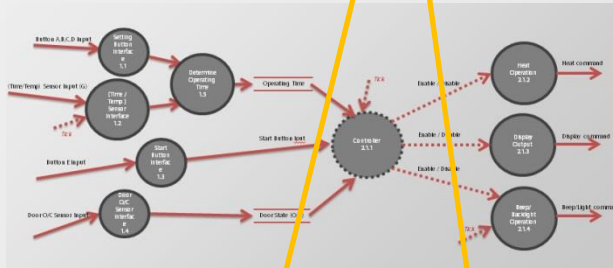
# DFD Level 4 – MW (State Transition Diagram)



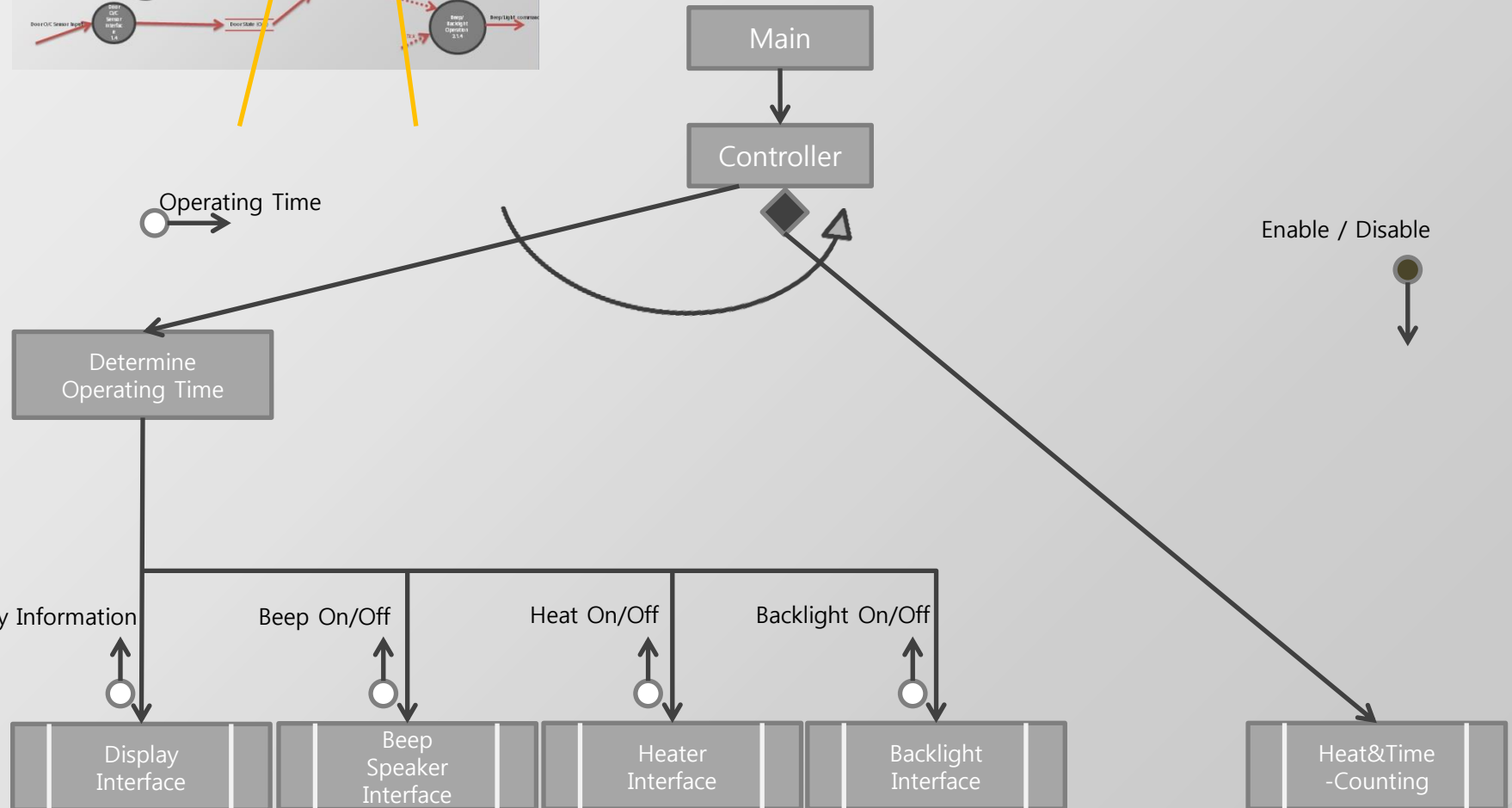
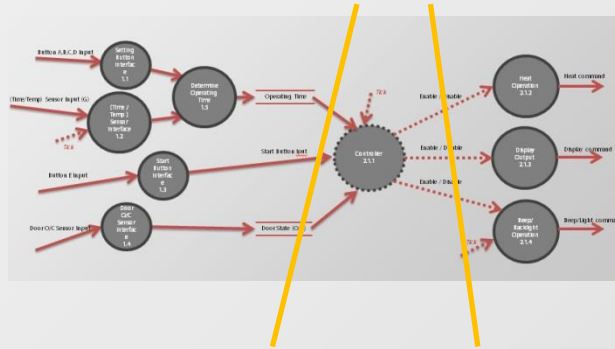
# DFD – Micro Wave



# Structured Charts – Micro Wave(Basic)



# Structured Charts – Micro Wave(Advanced)



# Question and Answer