

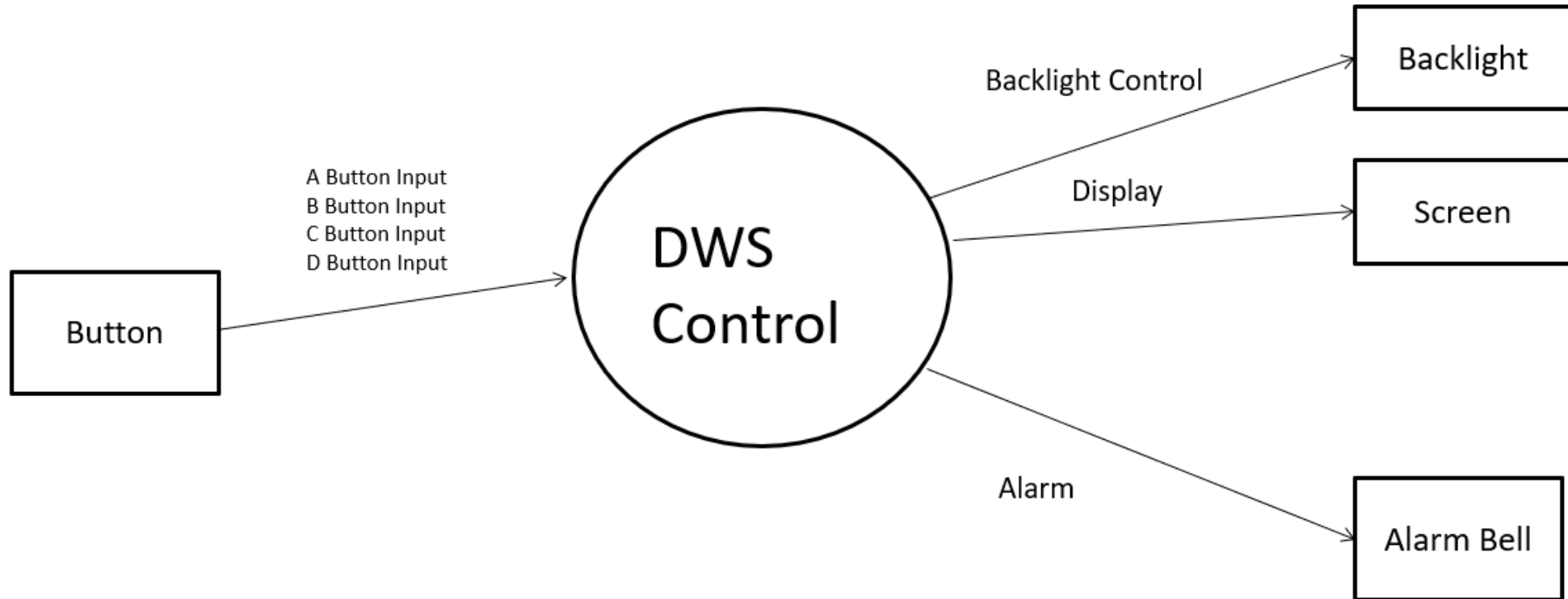
# DWS

201011359 임종화  
201614156 강현우  
201714167 양현영  
201714169 조영래

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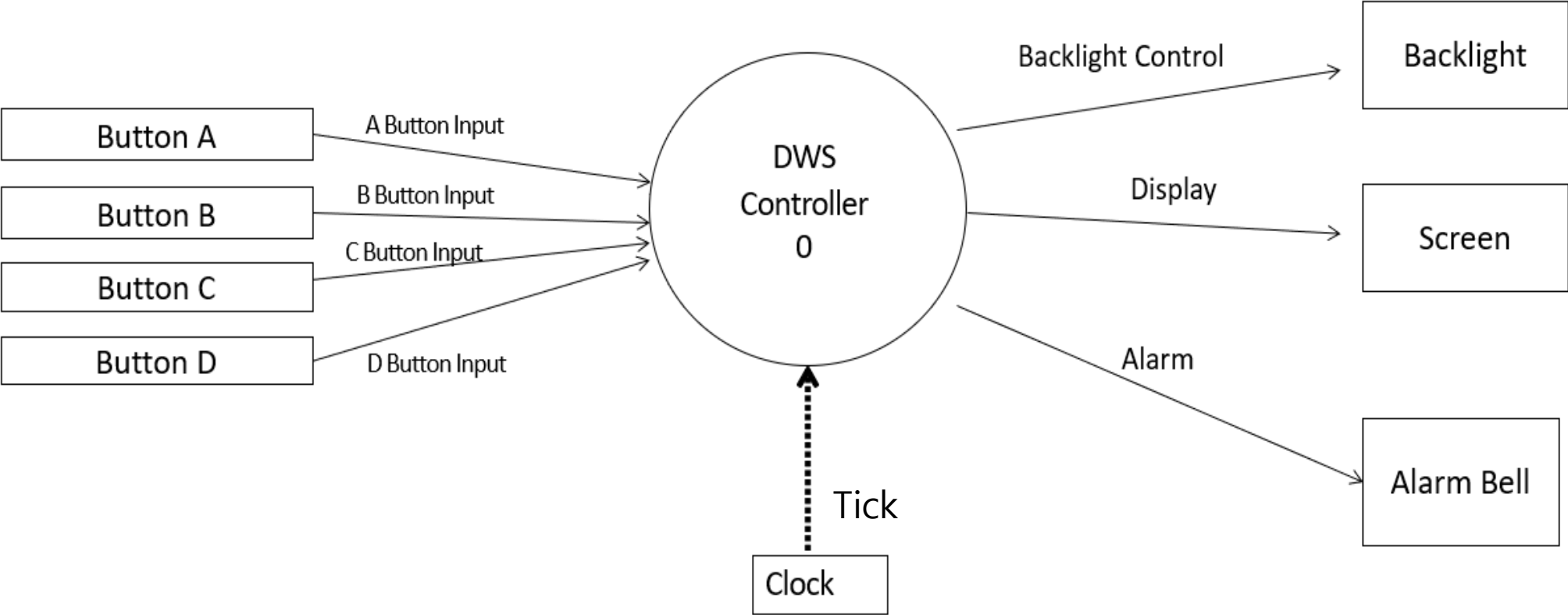
# System Context Diagram



# Event List

Input/Output Event	Description
A Button Input B Button Input C Button Input D Button Input	Detects whether A button is clicked or not Detects whether B button is clicked or not Detects whether C button is clicked or not Detects whether D button is clicked or not
Backlight Control	Make Backlight Enable/Disable
Display	Display command to Screen
Alarm	Make Alarm Bell ring

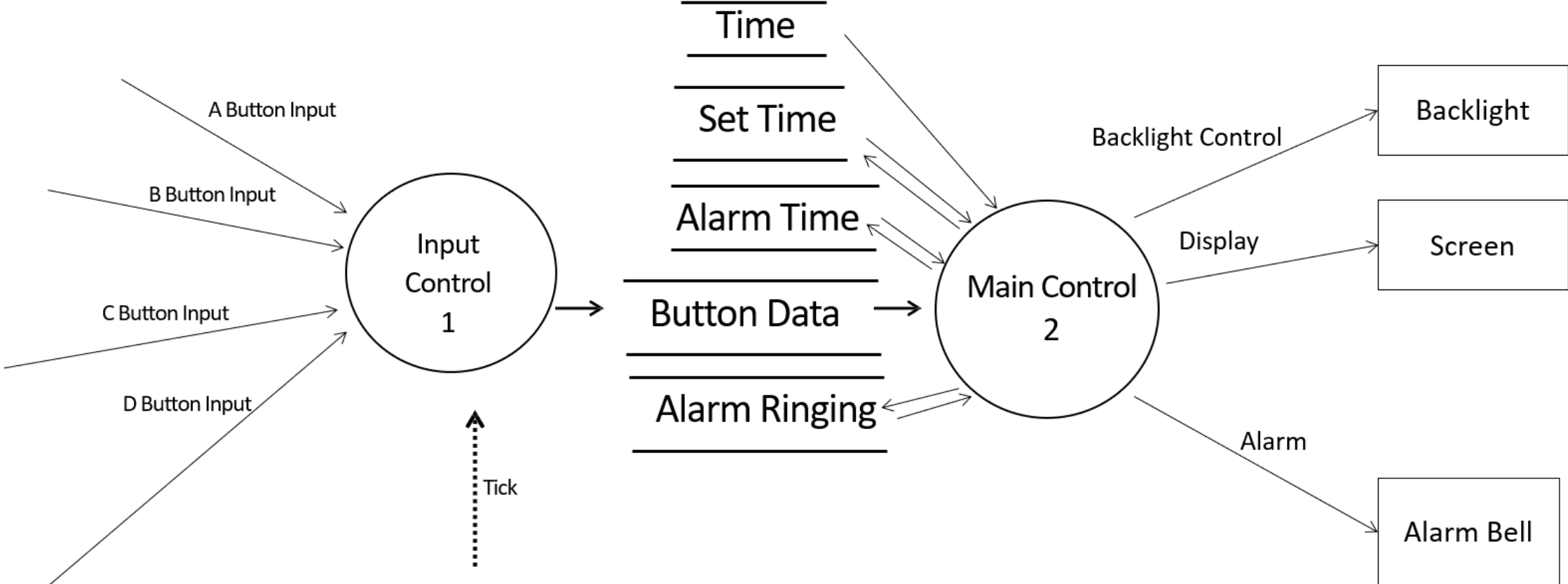
# DFD Level 0



# Data Dictionary

Input/Output Event	Description	Format
A Button Input	Detects whether A button is clicked or not	Char
B Button Input	Detects whether B button is clicked or not	Char
C Button Input	Detects whether C button is clicked or not	Char
D Button Input	Detects whether D button is clicked or not	Char
Backlight Control	Make Backlight enable/disable	Boolean
Display	Display	
Alarm	Make Alarm Bell ring	

# DFD Level 1

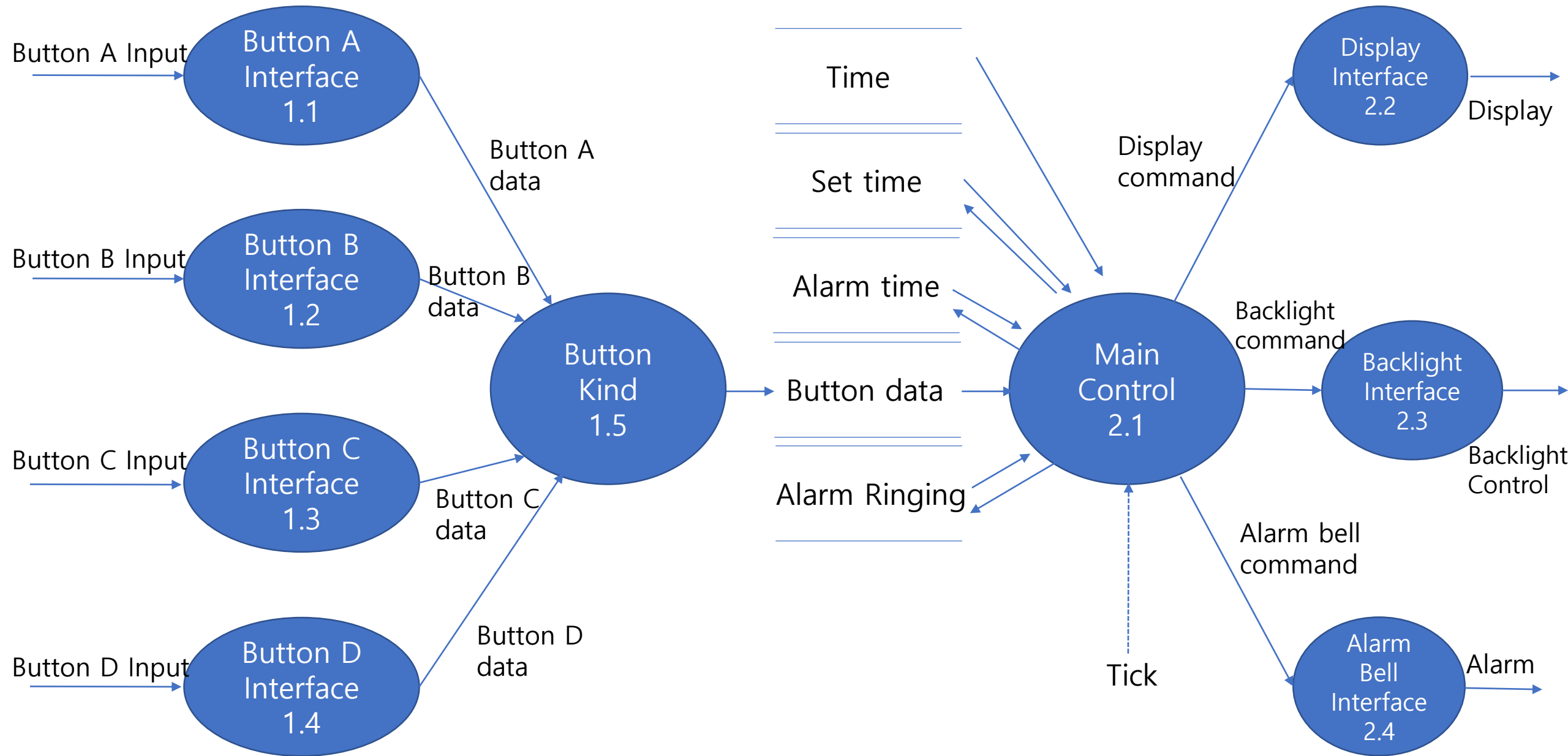


# Data Dictionary

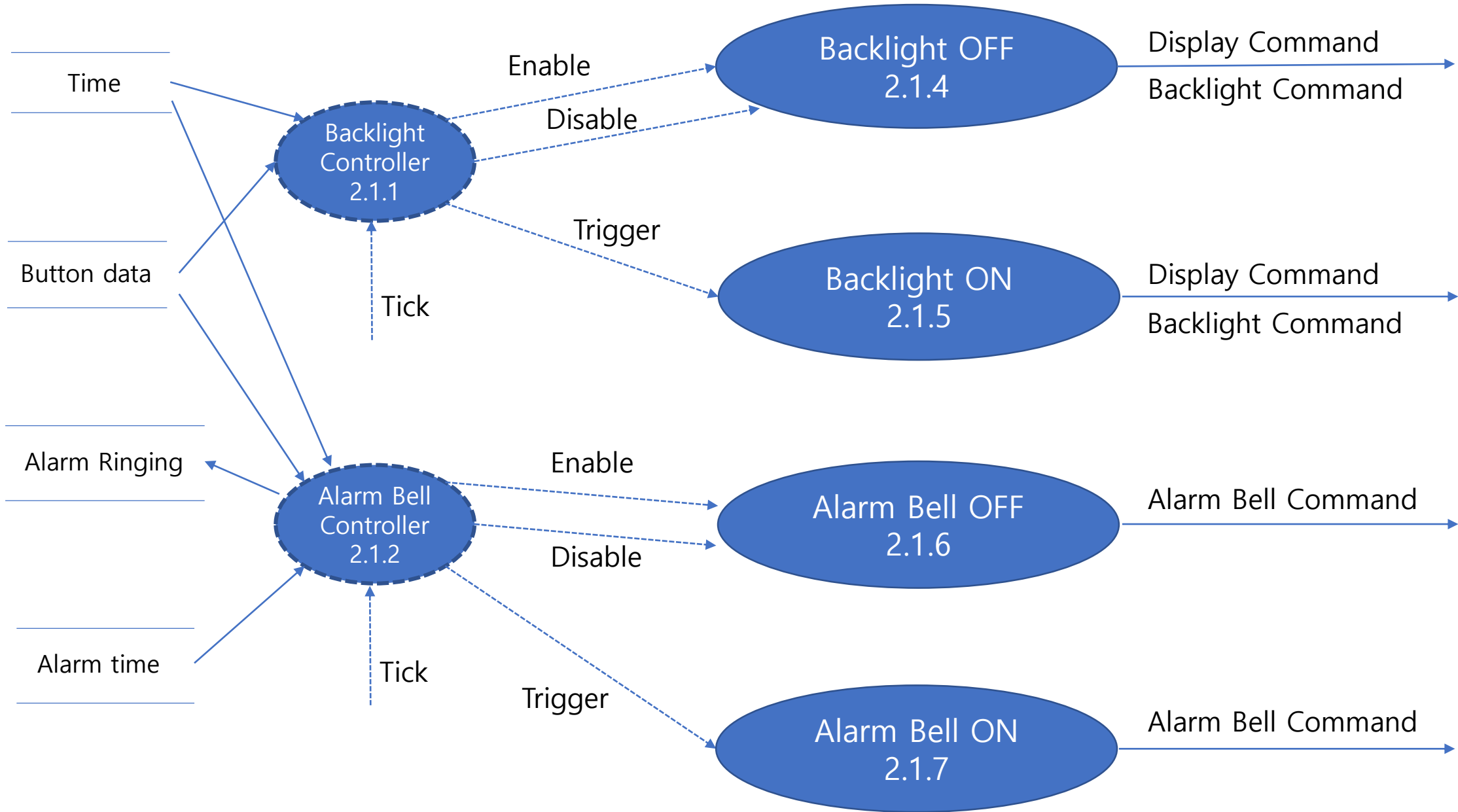
Data Store	Description	Format
Time	Obtain Time information	Int
Set Time	Obtain Set Time information and interact with main control	Int
Alarm Time	Obtain Alarm Time information and interact with main control	Int
Button Data	Data about buttons (A,B,C,D)	Char
Alarm Ringing	Obtain Alarm Ringing and interact with main control	Int

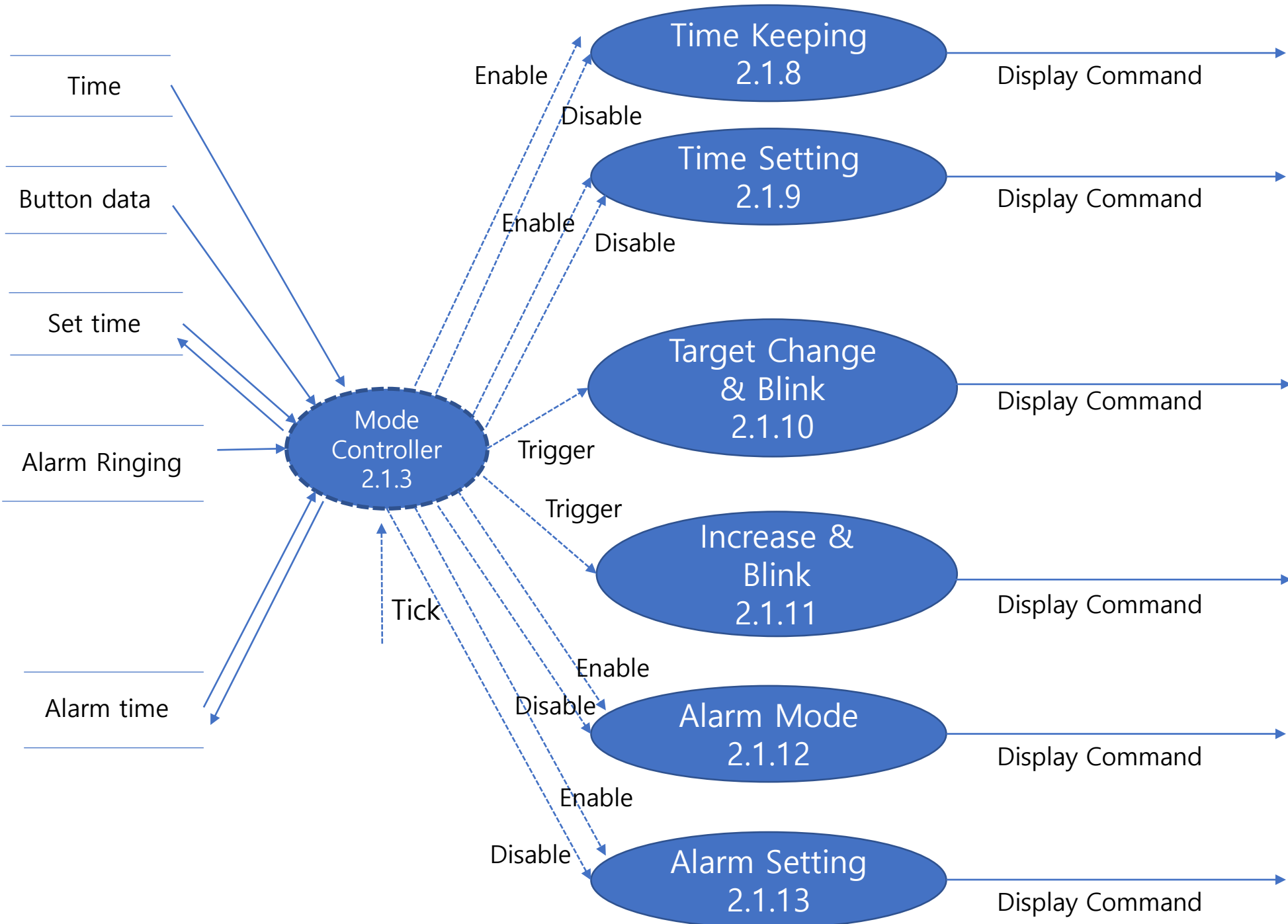


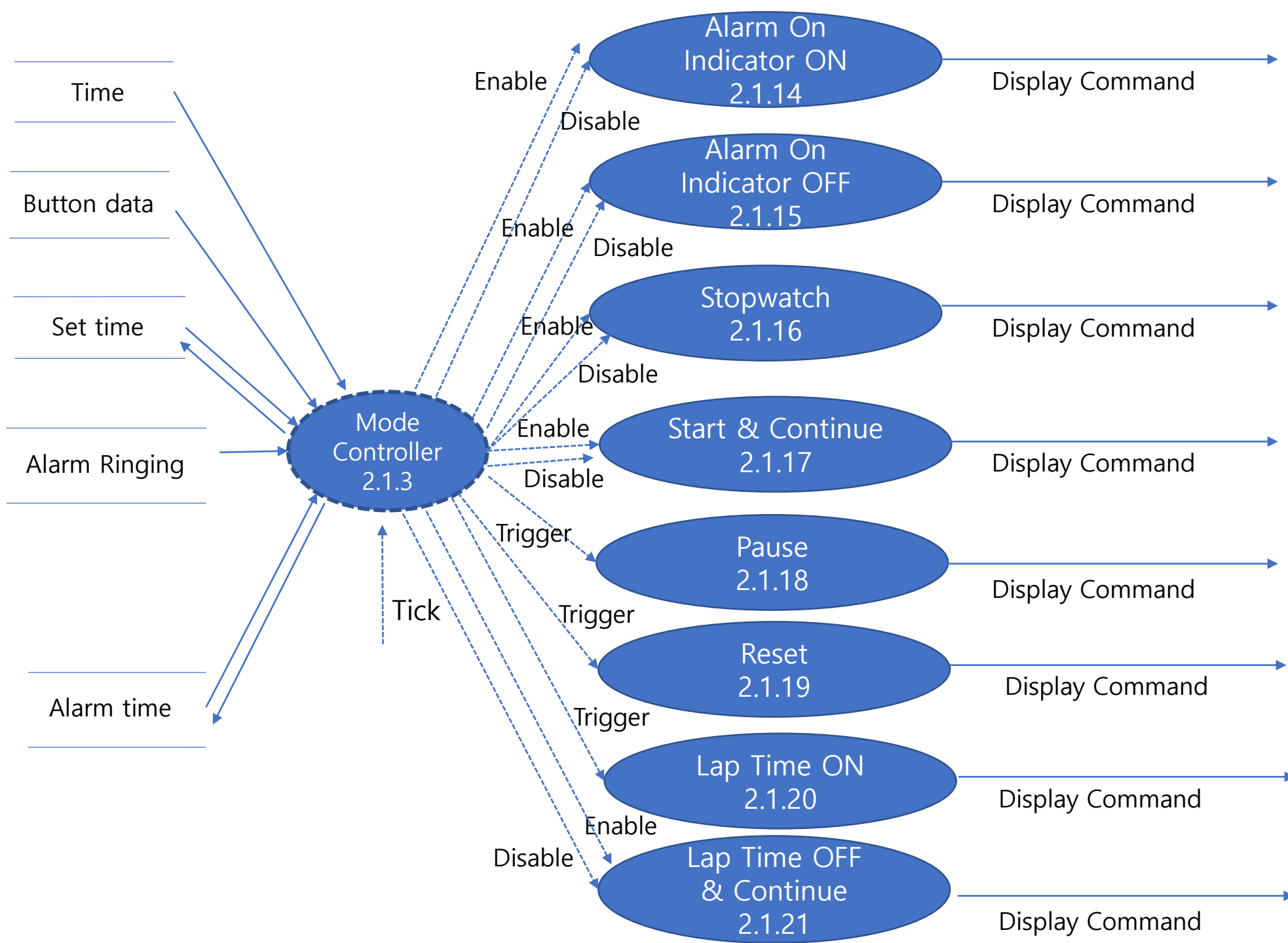
# DFD Level 2



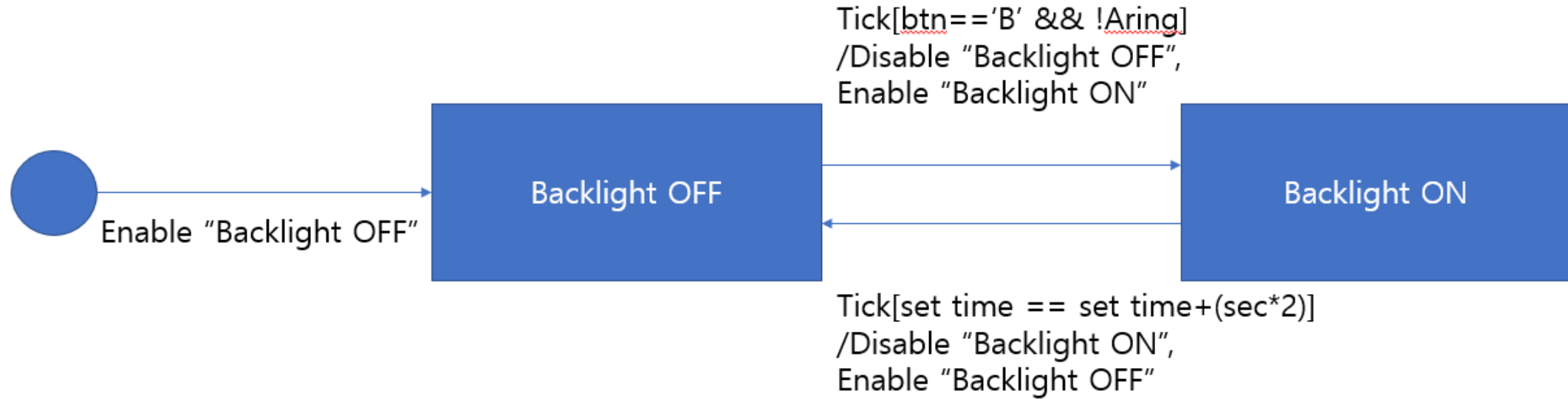
# DFD Level 3





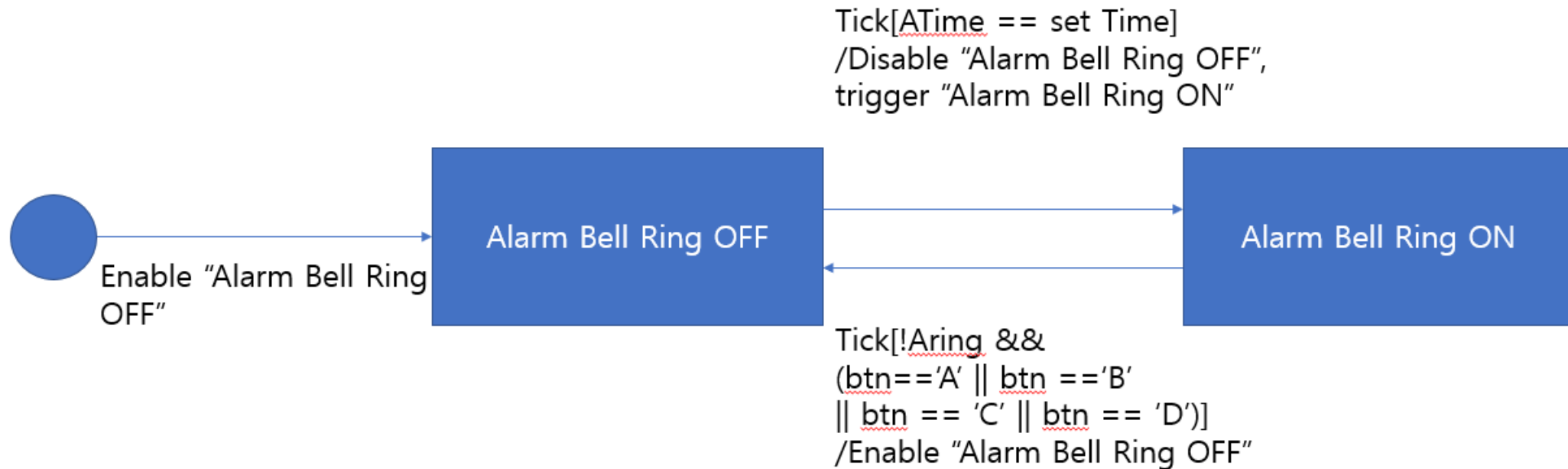


# DFD Level 4 – Backlight STD



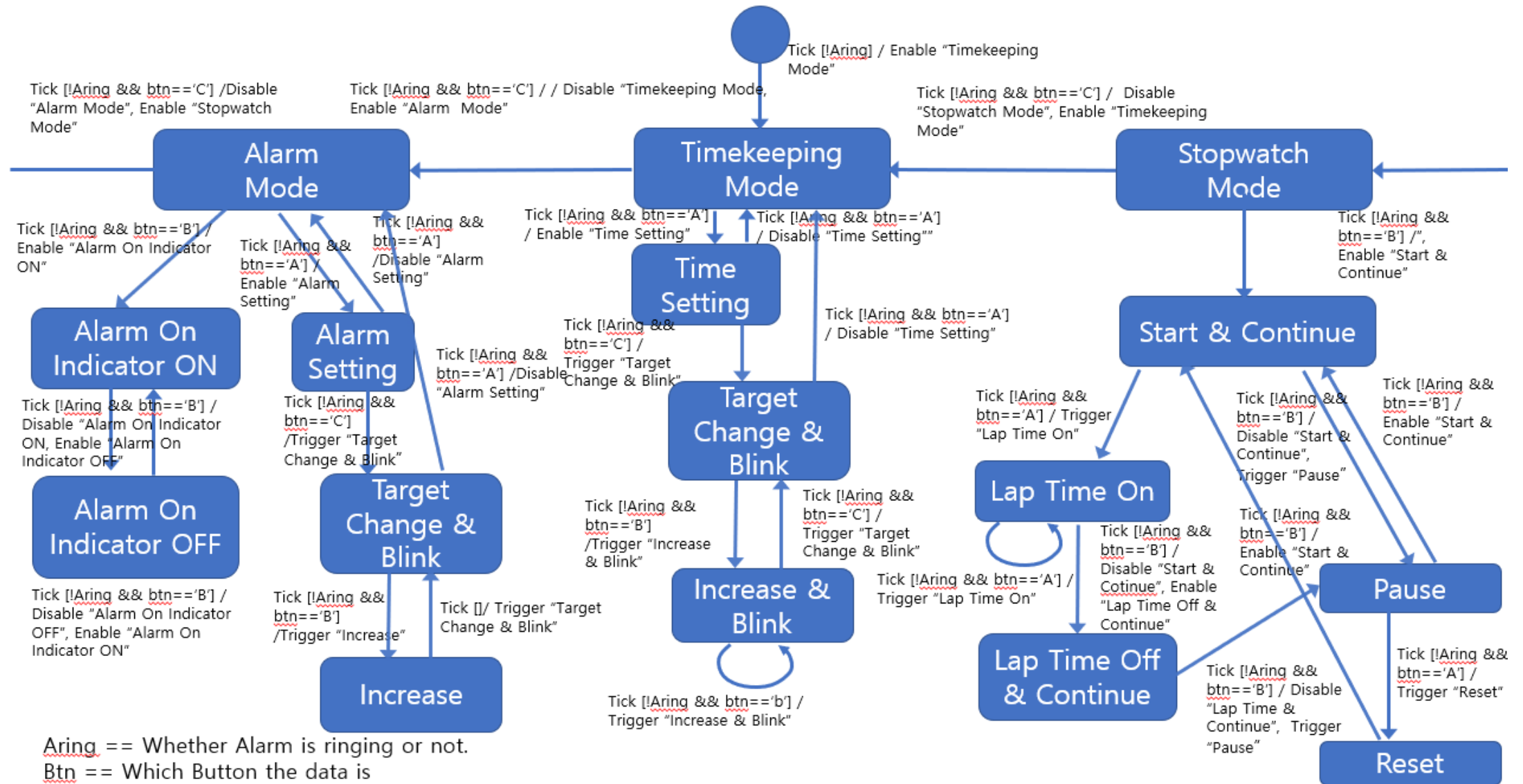
btn : button  
Aring : Alarm Ringing  
Set time : time which was set before

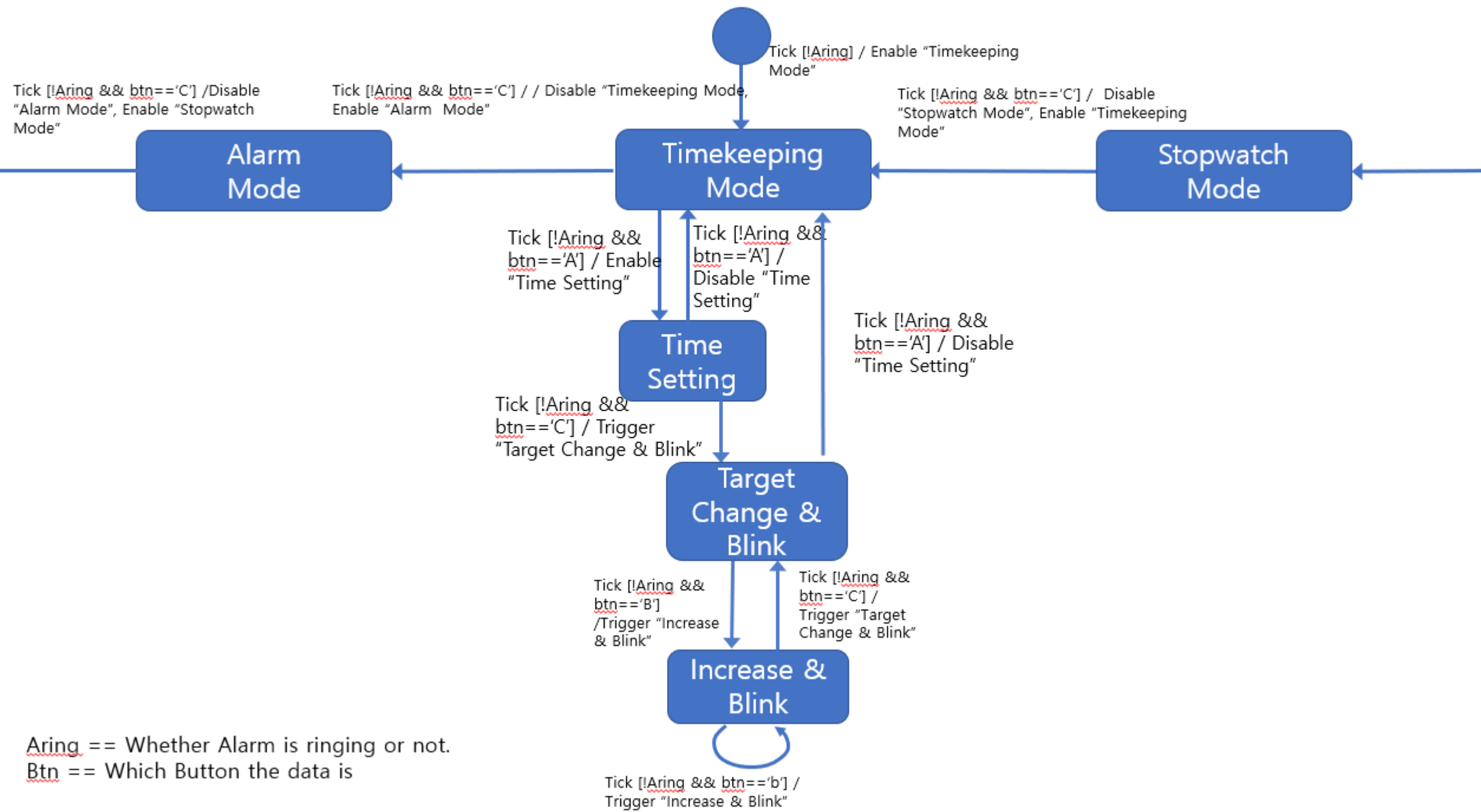
# DFD Level 4 – Alarm Bell Ring STD



ATime : Alarm Time  
Aring : Alarm Ringing  
btn : button

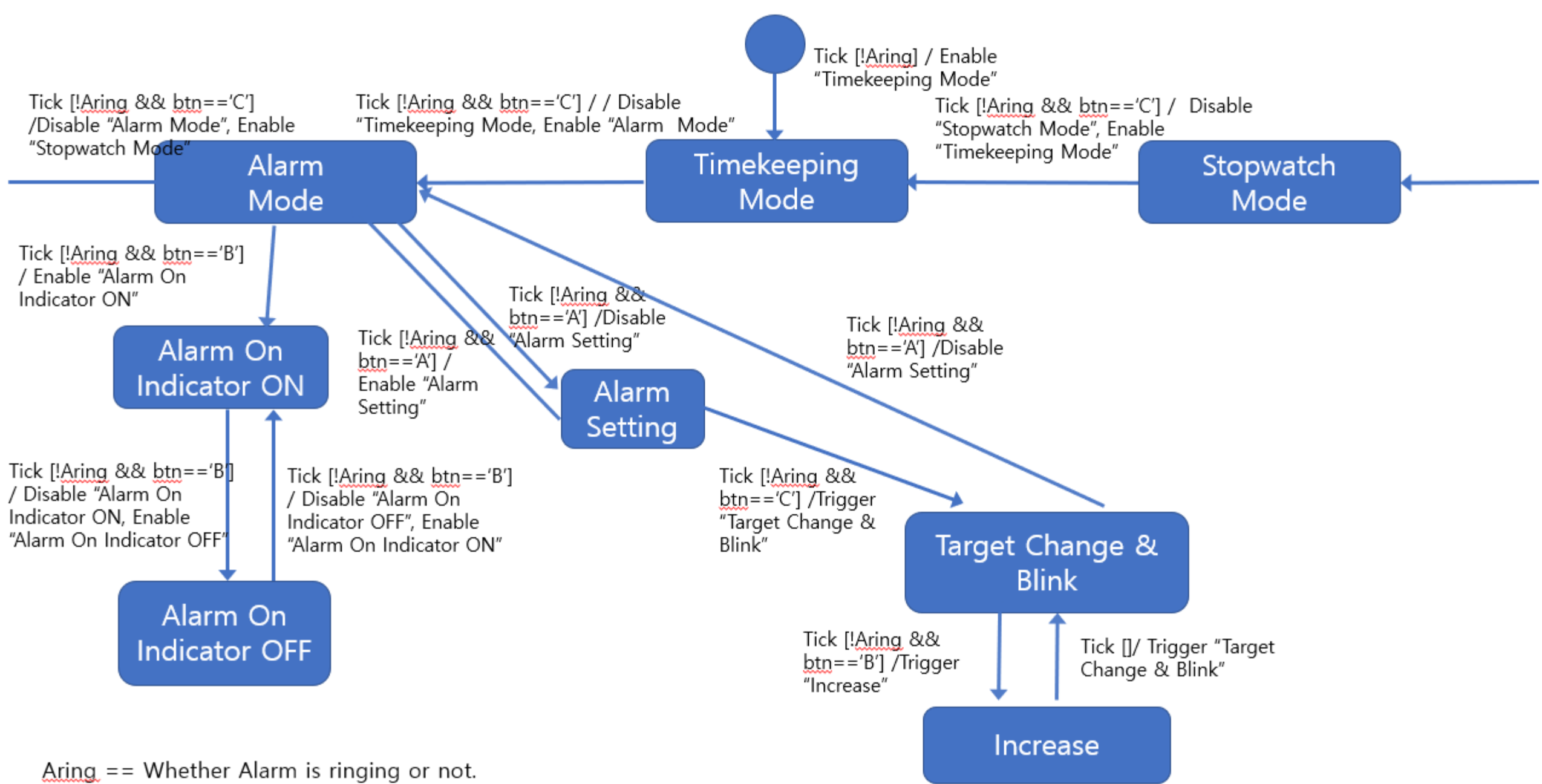
# DFD Level 4 – Mode Controller STD



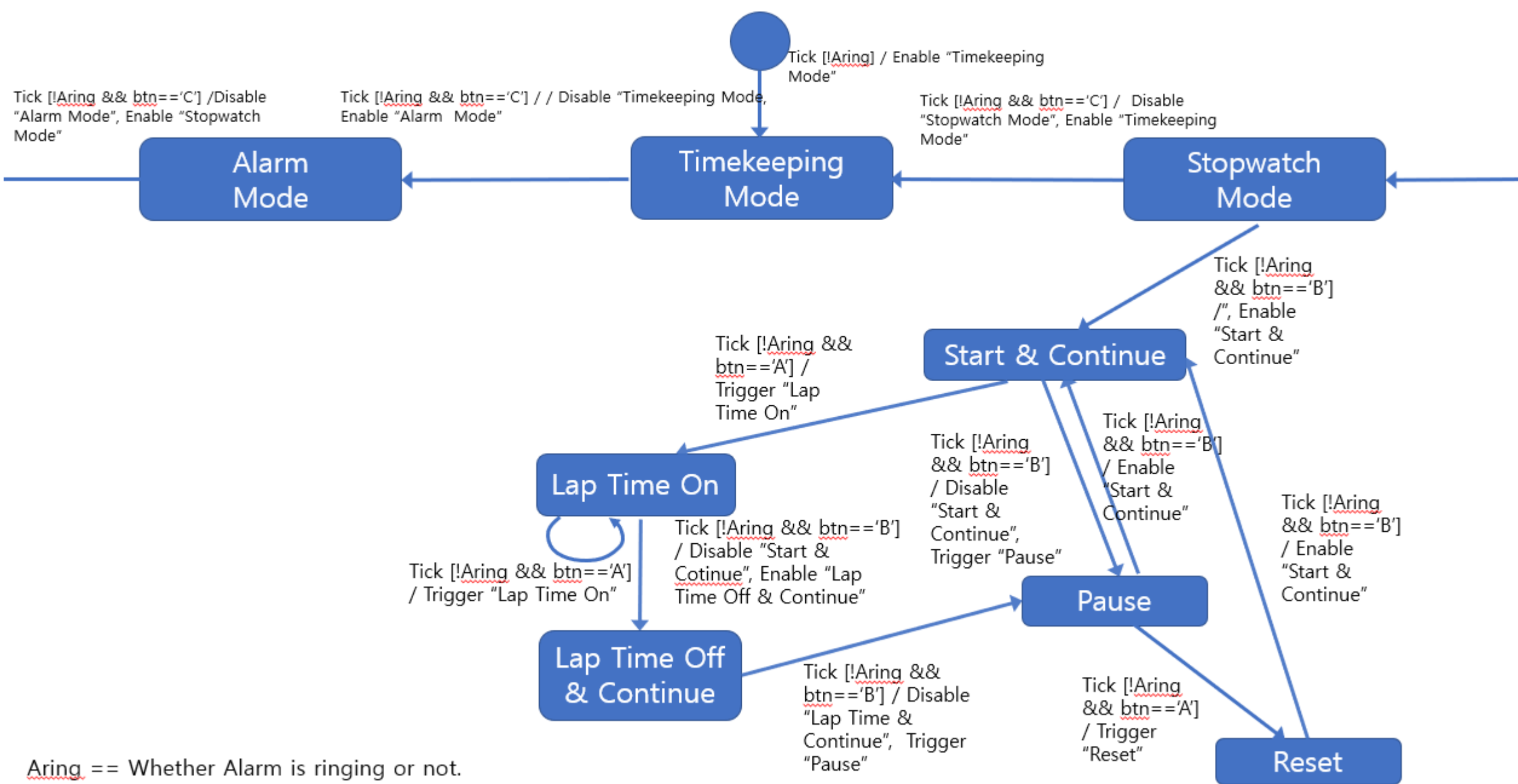


Aring == Whether Alarm is ringing or not.  
Btn == Which Button the data is



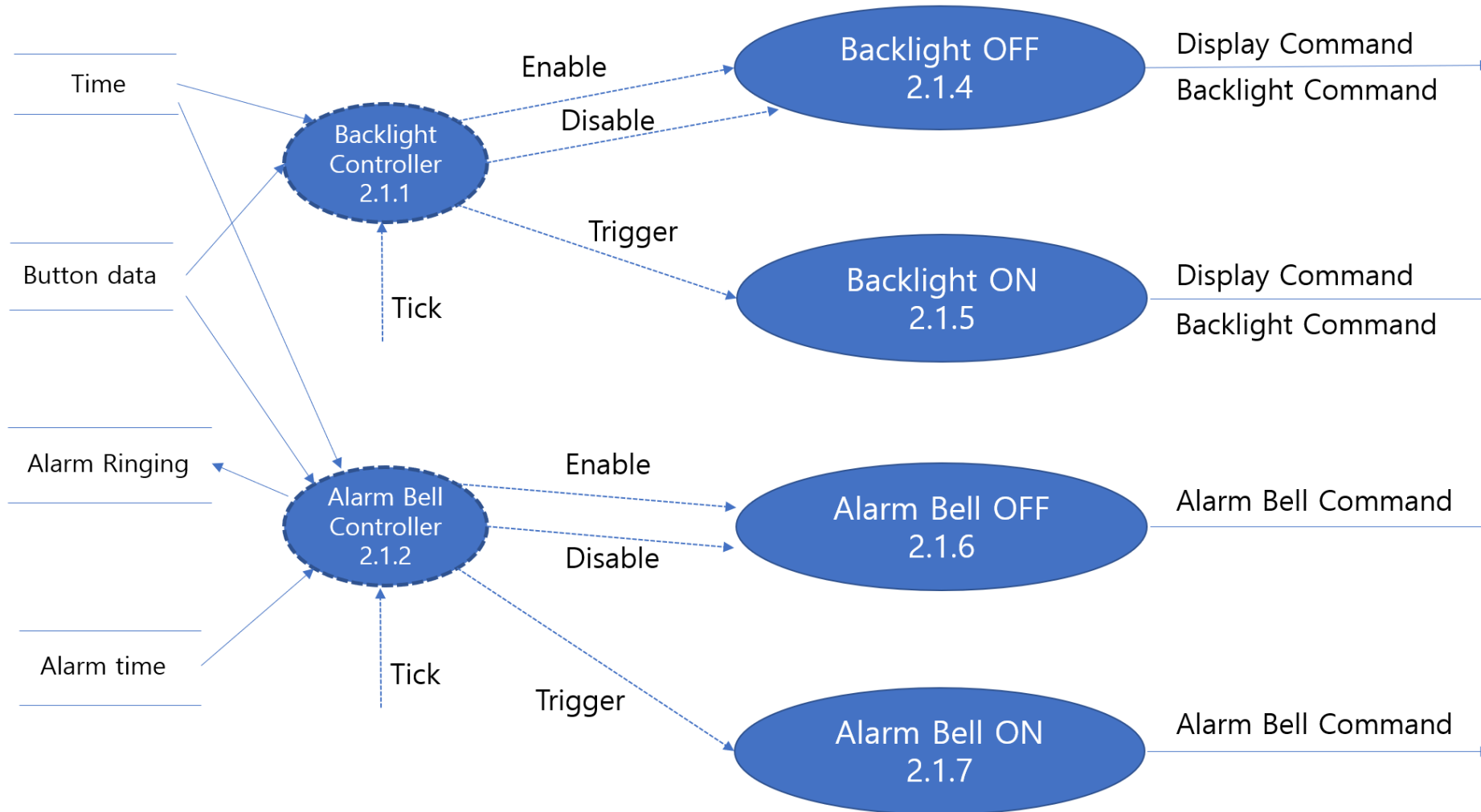


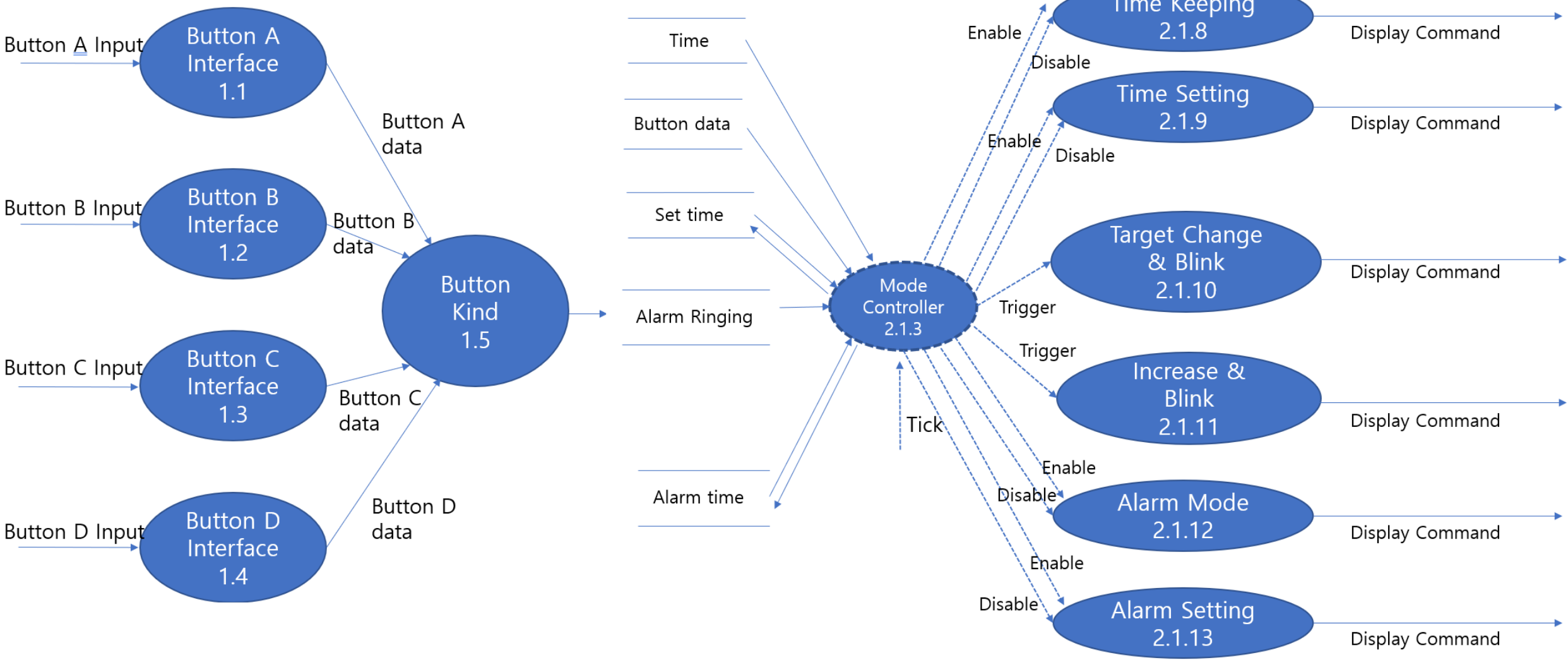
Aring == Whether Alarm is ringing or not.  
Btn == Which Button the data is

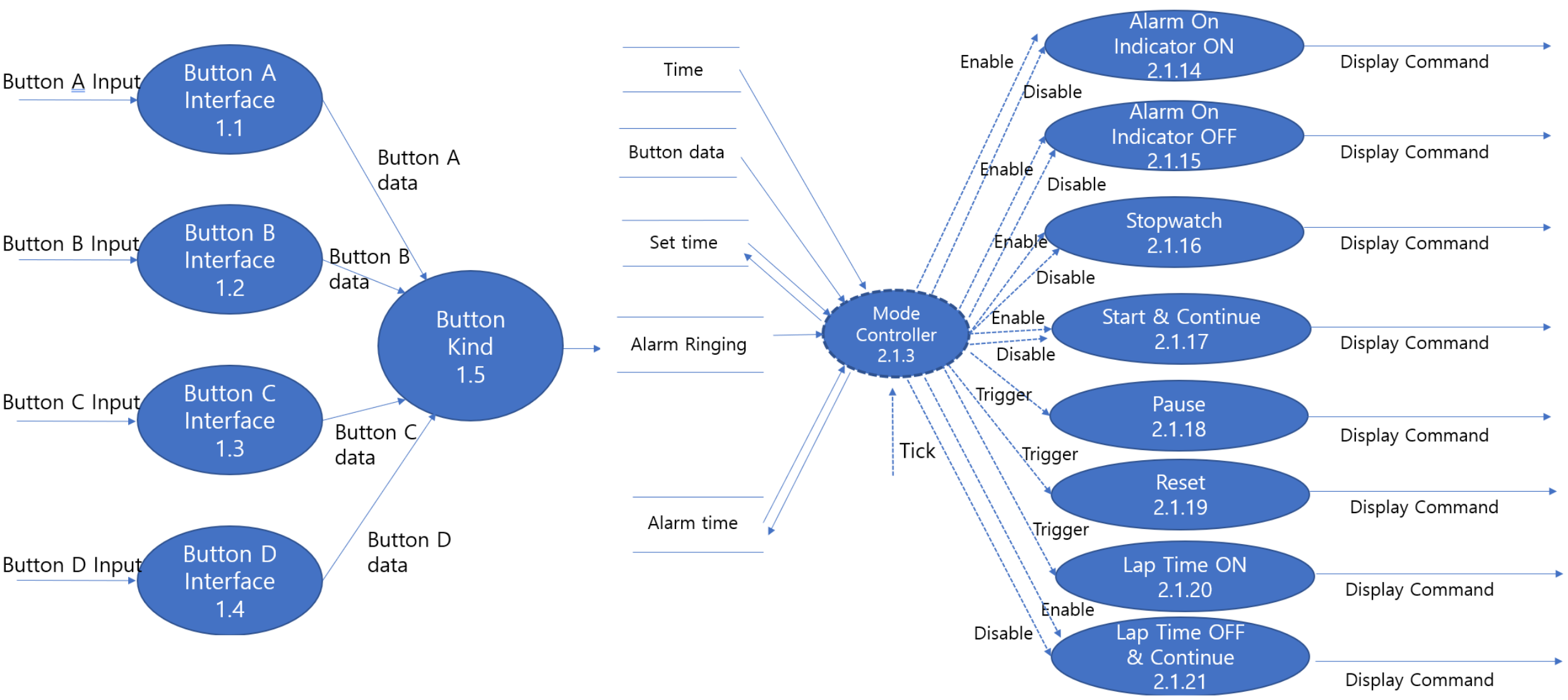


Aring == Whether Alarm is ringing or not.  
 Btn == Which Button the data is

# Overall DFD







Thank you