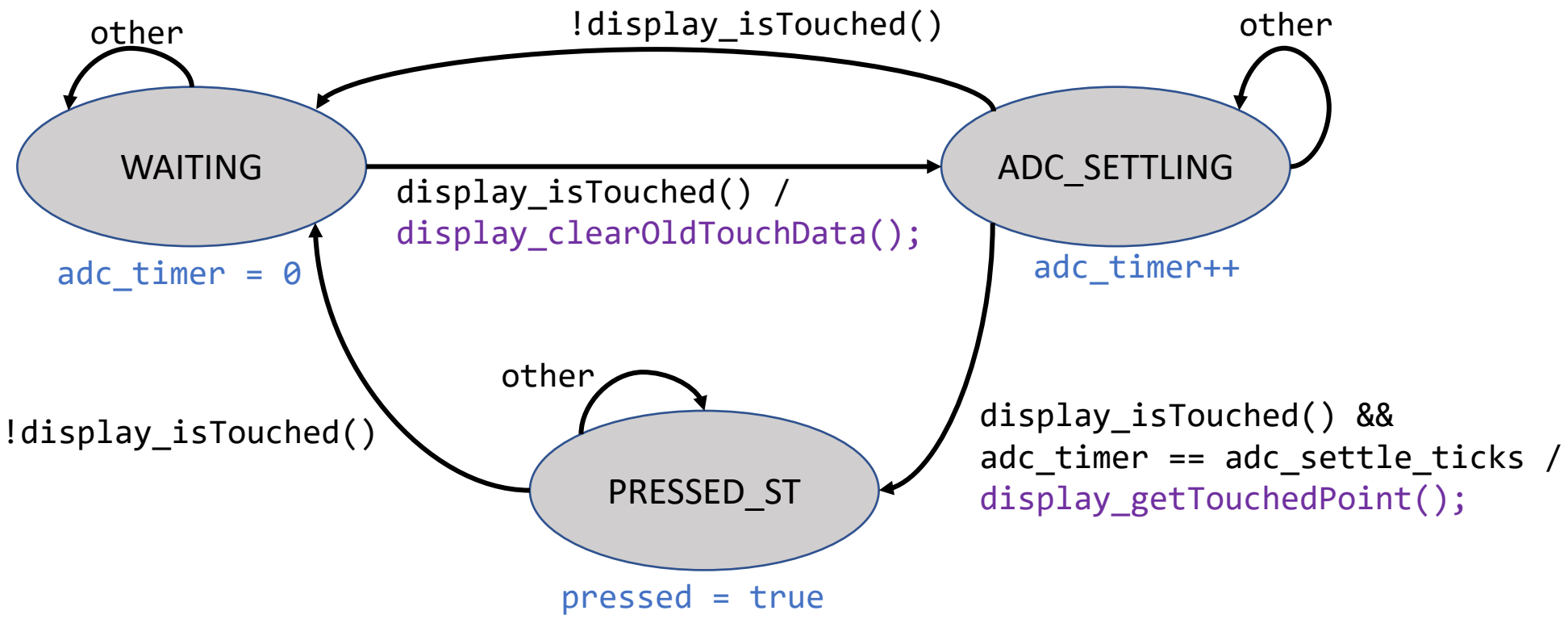
Touchscreen

ECEN 330

BYU Electrical & Computer Engineering
IRA A. FULTON COLLEGE OF ENGINEERING


other
!display_isTouched()
other
WAITING
ADC_SETTLING
display_isTouched() /
display_clearOldTouchData();
adc_timer = 0
adc_timer++
other
!display_isTouched()
display_isTouched() &&
adc_timer == adc_settle_ticks /
display_getTouchedPoint();
PRESSED_ST
pressed = true

- You can use the above diagram to implement your state machine. You can follow this design exactly, or make changes if you like.
- The **adc_timer** tracks the number of ticks elapsed since the user touched the screen, and is used to implement the delay required to allow the ADC to settle.
- **adc_settle_ticks** should be set in your `touchscreen_init()` function, according to the provided state machine period.
- You will need to declare the SM states in your **touchscreen.c** file. The SM states are ****_different_**** than the touchscreen statuses (**touchscreen_status_t** enum) defined in **touchscreen.h**.
- The **pressed** variable can be used to track whether your driver has an **unacknowledged** touch. It is set in the state machine and cleared in `touchscreen_ack_touch()`.