Setup Use Case

Actors	Operator
Preconditions	ChronoTimer is off
Normal Course	1. Operator turns the ChronoTimer on. a. ChronoTimer sets current time to internal clock.
Alternate Courses	Operator may also turn ChronoTimer printer on at this stage.
Exception Courses	If the ChronoTimer is unable to power on, operator should check power connection.
Post-conditions	ChronoTimer is on with the current time set.
Frequency of Use	High
Assumptions	-

NewRace Use Case

Actors	Operator
Preconditions	Machine is on and current time is set. Sensors are placed at their destinations and operator has ordered list of racers.
Normal Course	1. Operator sets the event type. 2. Operator creates a new run. 3. Operator enters the ordered racer list into the system one by one. 4. Operator connects the sensors to appropriate channels. 5. Operator toggles appropriate channels for Race type to ON. a. ChronoTimer prints channel numbers and their new state to acknowledge the toggle.
Alternate Courses	• If the operator changes the event type after beginning, the operator must redo all subsequent steps. • If the operator creates a new run without specifying an event type, the event type will default to IND. • At any time the operator may remove a specified racer from the run by invoking the CANCEL use case.
Exception Courses	• If the operator fails to create a new run before entering racers, an error will be printed and the racer will not be added. • If the operator toggles a channel to which there is no sensor connected, an error will be printed and the channel will not be toggled.
Post-conditions	ChronoTimer is ready to accept events from sensors and apply them to the state of its current run.
Frequency of Use	Very often.
Assumptions	-

Cancel Use Case

Actors	Operator
Preconditions	ChronoTimer is on and has a current run. The racer to cancel from the run exists, has started, and has not finished.
Normal Course	1. The operator commands ChronoTimer to cancel a racer's start. a. ChronoTimer returns the racer to the start queue.
Alternate Courses	
Exception Courses	If any preconditions aren't met, an error is printed and racer is not cancelled.
Post-conditions	The racer's start time has cancelled and is returned to the start queue.
Frequency of Use	Low
Assumptions	-

DNF Use Case

Actors	Operator
Preconditions	ChronoTimer is on and has a current run. The racer to mark DNF exists, has started, and has not finished.
Normal Course	1. The operator commands ChronoTimer to mark a racer DNF.
Alternate Courses	
Exception Courses	If any preconditions aren't met, an error is printed and racer is not marked DNF.
Post-conditions	The racer is marked DNF and removed from consideration in future events.
Frequency of Use	Low
Assumptions	-

PrintRace Use Case

Actors	Operator
Preconditions	ChronoTimer is on and has a current run.
Normal Course	1. The operator issues command to print entire race. a. ChronoTimer prints the log of entire current race to printer.
Alternate Courses	
Exception Courses	If preconditions aren't met, an error is printed.
Post-conditions	Physical printer log shows entire race.
Frequency of Use	Medium
Assumptions	

EndRace Use Case

Actors	Operator
Preconditions	ChronoTimer is on and has a current run.
Normal Course	1. The operator issues a command to end the current race. a. ChronoTimer prompts to confirm command. b. ChronoTimer invokes PrintRace use case. c. ChronoTimer ends the current race. d. ChronoTimer toggles all channels to off.
Alternate Courses	The operator may cancel when prompted to confirm command.
Exception Courses	-
Post-conditions	ChronoTimer has no current race.
Frequency of Use	Medium
Assumptions	-

Start Use Case

Actors	Racer
Preconditions	ChronoTimer is on and has a current run. There are racers left to start.
Normal Course	1. The racer triggers the sensor as they start the race. a. ChronoTimer receives signal, logs the start time as bound to the next racer marked to start, and prints to log and printer.
Alternate Courses	-
Exception Courses	If there is no current run or there are no racers left to start, nothing is done.
Post-conditions	ChronoTimer has log corresponding the racer who started with their start time.
Frequency of Use	Very High
Assumptions	-

Finish Use Case

Actors	Racer
Preconditions	ChronoTimer is on and has a current run. There are racers who have started but not finished.
Normal Course	1. The racer triggers the sensor as they finish the race. a. ChronoTimer receives the signal, logs the finish time as bound to the next racer marked to finish, and prints to log and printer.
Alternate Courses	-
Exception Courses	If there is no current run or there are no racers who have started, nothing is done.
Post-conditions	ChronoTimer has log corresponding the racer who finished with their finish time.
Frequency of Use	Very High
Assumptions	-