Real-Time Flare Trigger Algorithm Flowchart

Algorithm returns to searching state

30-minute deadtime is complete

Searching State:

No flare is currently happening, and the algorithm is ready to trigger.

Trigger condition is met

Triggered State:

Algorithm waits for **4 minutes**, to see if flare is progressing.

4 minutes pass and flare has not ended

Pre-Launch State:

Launch is called, and **3 minute countdown** begins.

3 minute launch-window passes and flare has not ended

Launch and Observation:

FOXSI and HiC are launched and observe a beautiful flare!

HiC finishes its observation

Post-Launch Deadtime State:

30 minute deadtime post-launch, which must be completed before searching for another flare (if practicing with multiple attempts)

Flare end condition is met during trigger state

Algorithm returns to searching state

Flare end condition is met during pre-launch state **HOLD LAUNCH!!!**

30-minute deadtime must be complete before searching for a new flare

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