

Legend

Cyan: Task

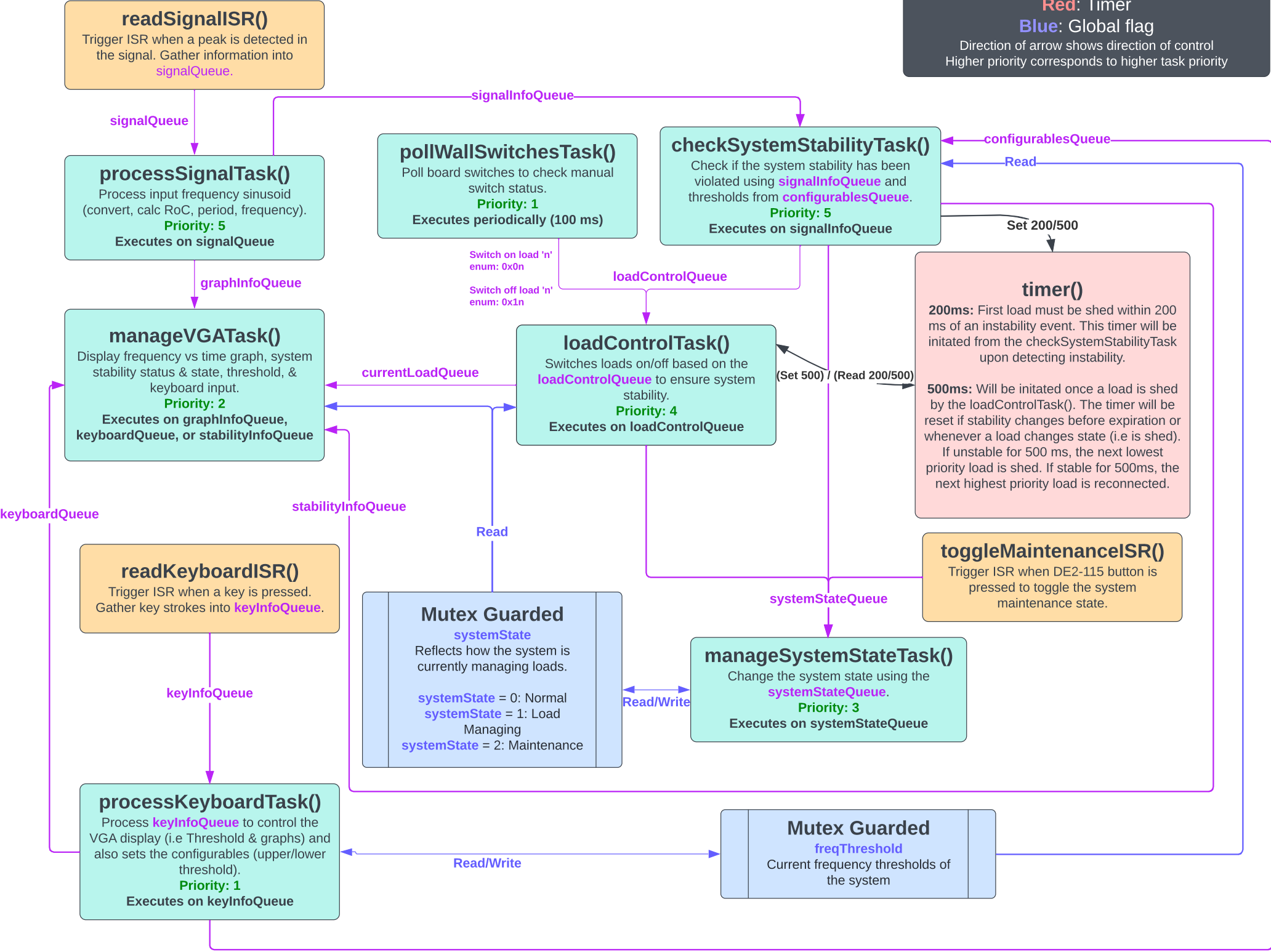
Yellow: ISR

Purple: Queue

Red: Timer

Blue: Global flag

Direction of arrow shows direction of control
Higher priority corresponds to higher task priority



Queue Messages Detail

- signalQueue:** Contains frequency input signal.
- signalInfoQueue:** Frequency RoC, AD converted frequency signal, & waveform period.
- loadControlQueue:** Wall switch *enum*, stability criterion for **loadControlTask** to operate on.
- systemStateQueue:** Maintenance button value, current system stability, & information on if the loads have been reconnected.
- configurablesQueue:** Frequency thresholds for upper and lower.
- keyInfoQueue:** Key which is pressed on keyboard sent to task in ASCII.
- stabilityInfoQueue:** Current system stability to display on VGA.
- currentLoadQueue:** Current system load states to display on VGA.
- keyboardQueue:** Process keystrokes in **keyInfoQueue** and display on VGA.
- graphInfoQueue:** Display RoC, signal period, & converted frequency signal from onboard generator on VGA.