## Regulate Current Use Case

## **Basic Course:**

When the <u>circuit</u> indicates high current through the <u>sensor</u>, the system will convert the raw digital input into a usable format. The system will then compute a result using the Fourier Transform, and then compare this result with predefined values. The system will then 'buck' or 'boost' the circuit accordingly by outputting a digital signal.

## **Alternate Course:**

**Sensor input cannot be read:** When the <u>sensor</u> fails to send an input for a designated time interval, the system will assume a critical hardware failure has occurred and shut down the <u>circuit</u>.