Sensor Reference Manual

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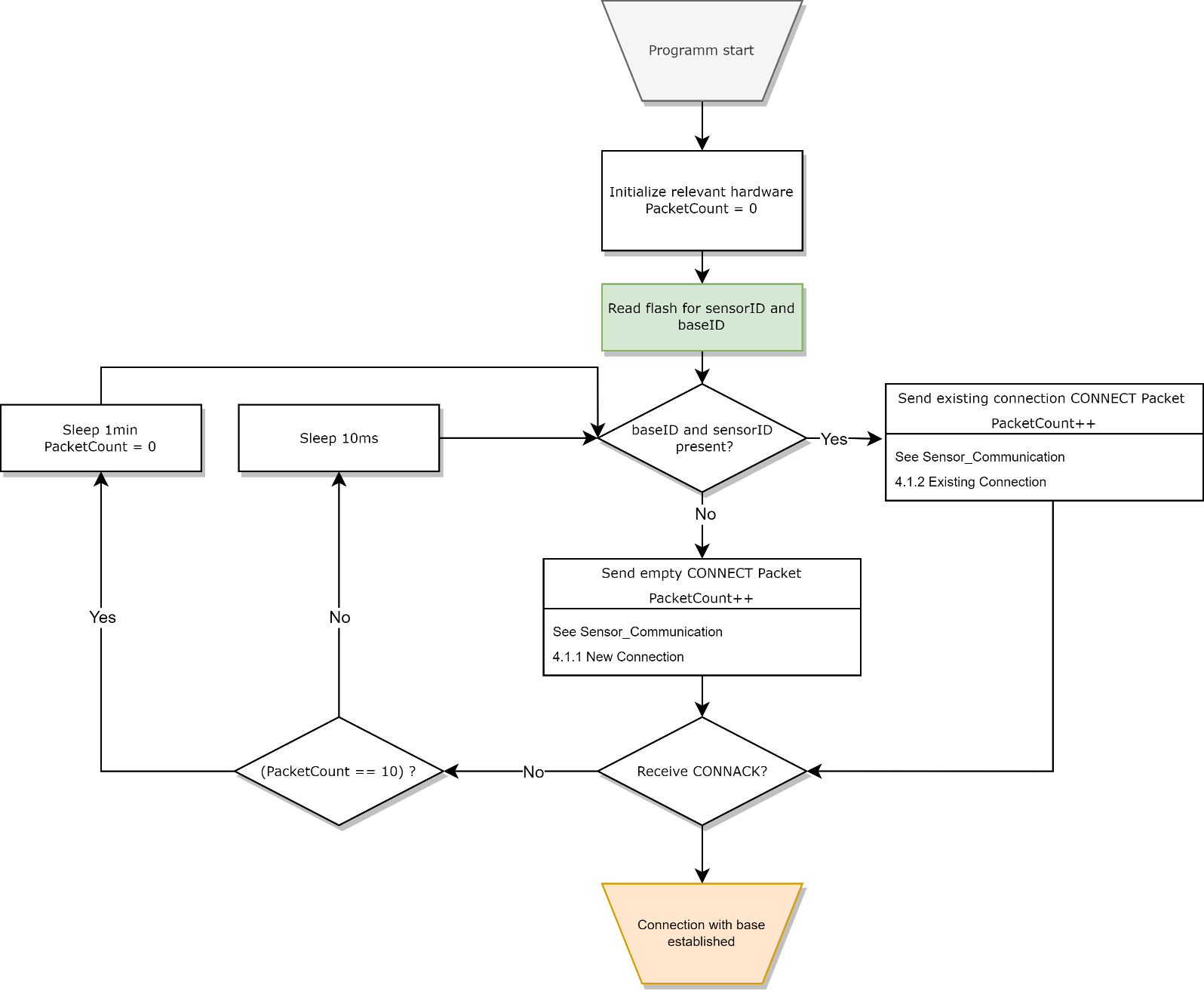
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# Program Flow-Chart

This flowchart is only for a rough overview and does not go into every specific detail.

## 1.1 Program start

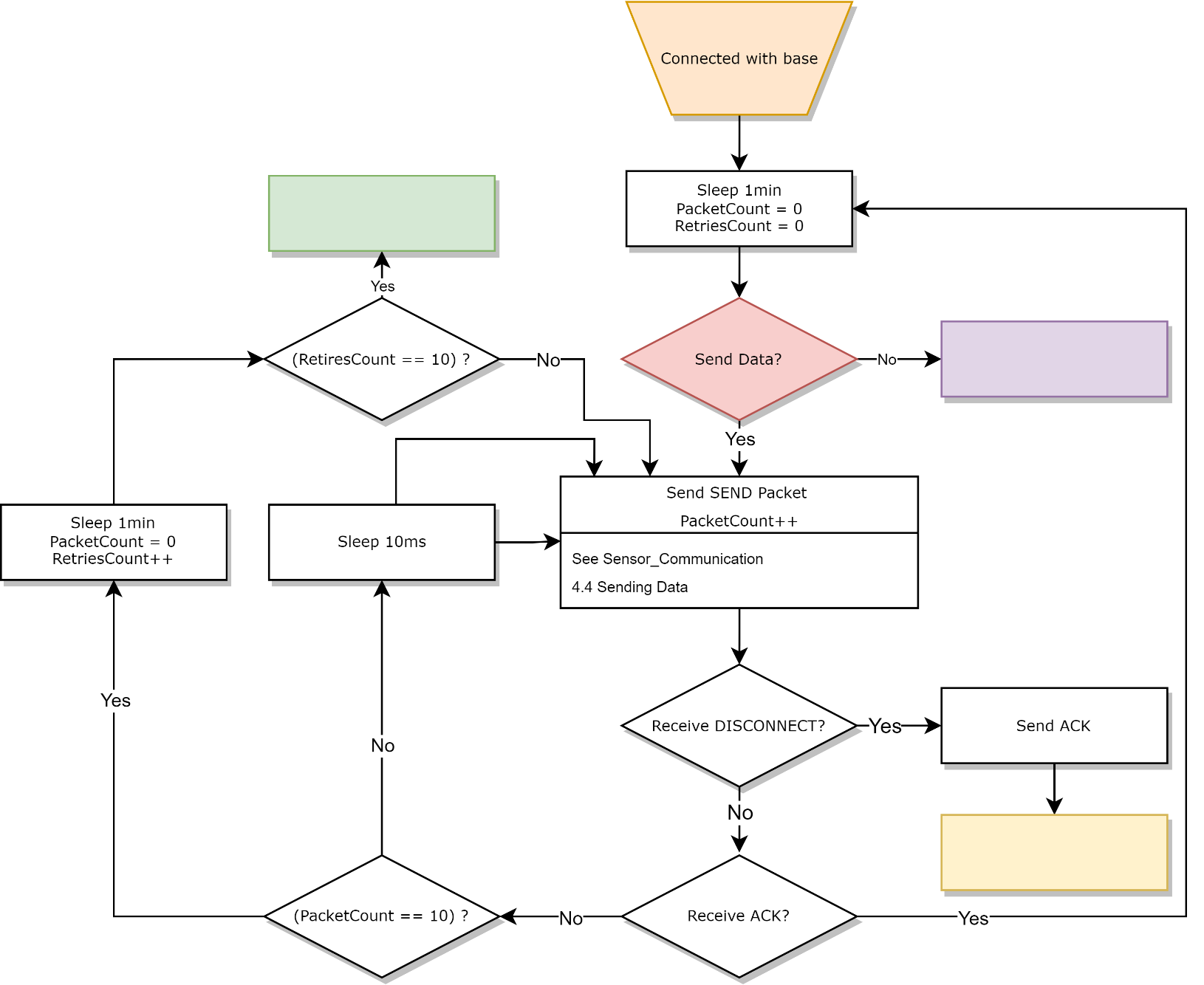
The program start initialises all hardware and tries to establish a connection with a base station.

See [Connection with base established](#_1.2_Connected_with).

## 1.2 Connected with base station

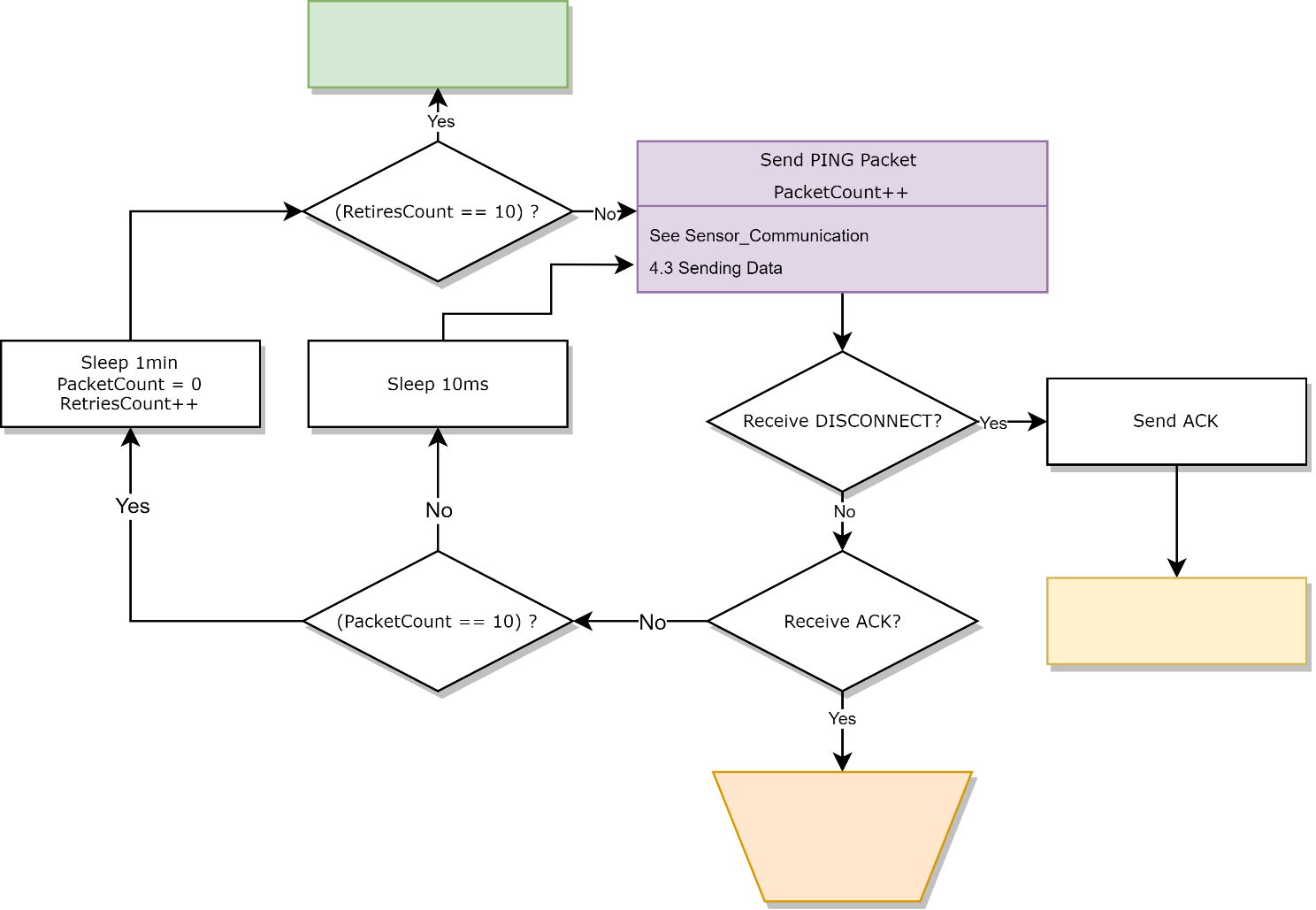
The Sensor goes into sleep mode to save battery, when awoken it checks if it needs to send data, otherwise it sends a ping to let the base station know it is still active.

This is dependent on the sensor, some send constant information like temperature, others only if an event has occurred.

If an event has occurred that data precedes any other data trying to be sent.

See [(RetriesCount == 10)](#_1.1_Program_start) ,[No Data to send](#_1.3_PING).

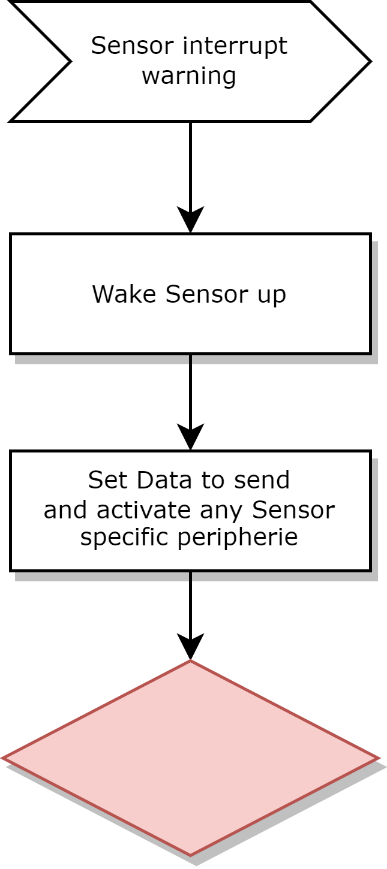
## 1.3 PING



See [(RetiresCount == 10),](#_1.1_Program_start) [Send ACK](#_1.6_Reset_button), [Received ACK](#_1.2_Connected_with).

## 1.4 Sensor warning interrupt

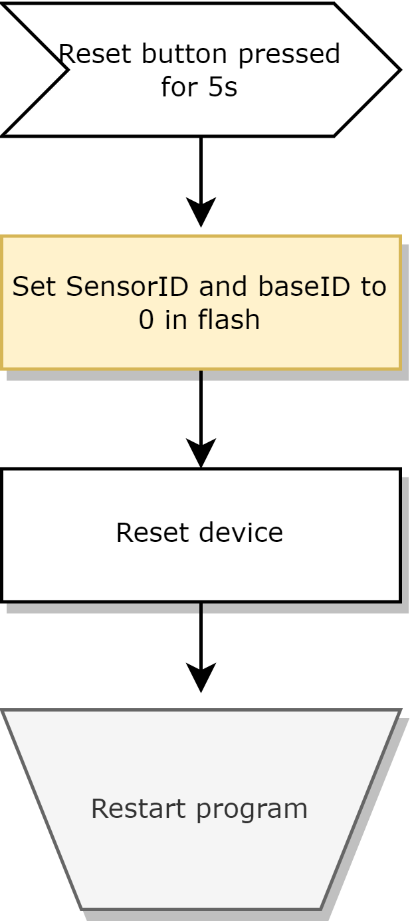
This is executed in an interrupt context, the exact implementation is Sensor dependent.



See [Send Data](#_1.2_Connected_with).

## 1.5 Reset button held for 5s

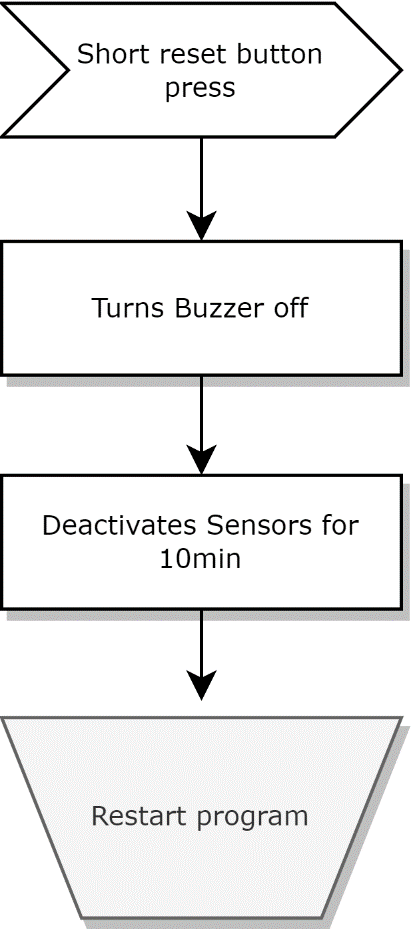
This allows a user to manually reset the Sensor to connect it to a different base station.



See [Start Program](#_1.1_Program_start).

## 1.6 Sensor Specific: Smoke detector – Reset button pressed shortly

This functionality is only on the Smoke detector sensor



See [Program start](#_1.1_Program_start).