

# **Board for XIAO LoRa V2 020123**

## **Using GPSs with Power down capability**

The GPS boards I do for Quectel L70/L76 and L80/L86 on Tindie (<https://www.tindie.com/products/20921/> and <https://www.tindie.com/products/20919/>) can be fitted with components to power off the GPS, Vbackup is still connected to VCC so the GPS goes into a low current backup mode using around 10uA. The GPS can then be used in hotfix mode, wherein a new fix can be obtained normally within around 5 seconds of power up.

The GPS boards have a pin than needs to be set low to turn off the GPS. For the GPS connector on the end of the Board\_for\_XIAO\_LoRa\_V2 this pin is shared with the NRESET pin of the LoRa module. So if you set the pin on the GPS board low to power it up, the LoRa module is reset. In this mode the LoRa module consumes circa 650uA, which is considerably less than the 25mA or so used by the GPS. Of course when the GPS has produced a fix, the LoRa device needs to be setup again using the same LoRa.setupLoRa() command that is in setup(), not a problem really.

**Stuart Robinson**

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