Gateway device setup

Open Arduino IDE and load next sketch:

~/projects/scripps/solar-tracker-gateway/arduino/sketches/tiny0_gateway/tiny0_gateway.ino

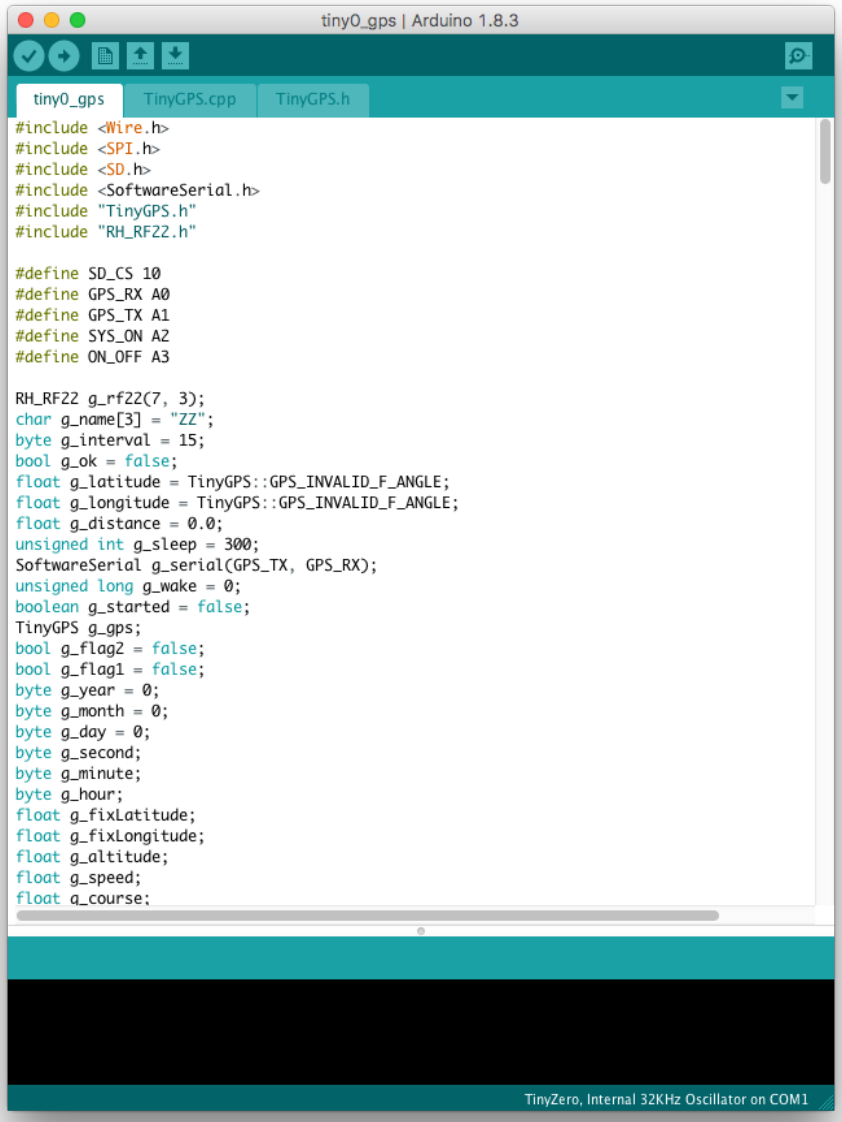
Choose “TinyZero” in “Tools/Board” menu and “Internal 32KHz Oscillator” in “Tools/Build Option” menu. Now upload sketch.

GPS device setup

Open Arduino IDE and load next sketch:

~/projects/scripps/solar-tracker-gateway/arduino/sketches/tiny0_gps/tiny0_gps.ino

Choose “TinyZero” in “Tools/Board” menu and “Internal 32KHz Oscillator” in “Tools/Build Option” menu. Now upload sketch.



GPS device need a configuration file inside micro SD card, named “settings.ini”. This file contains:

- name. Two characters used to identify a specific device. Characters and numbers can be used.
- interval. Number of seconds between tracking position acquirements.
- latitude. Latitude where Gateway computer is, to send information once GPS device detects is near.
- longitude. Longitude where Gateway computer is, to send information once GPS device detects is near.
- distance. Distance in meters to Gateway computer to start sending data.
- sleep. Once around a Gateway computer, GPS device can sleep to save energy. This variable specifies number of seconds the nap will take.

An example of a settings.ini file contents:

```
name=00
interval=15
latitude=32.715736
longitude=-117.161087
distance=50
sleep=60
```

GPS device will be identified as “00”, position will be taken every 15 seconds, if distance to a Gateway computer in 32.715736, -117.161087 (lat / long) is less than 50 meters, GPS device will send data, and sleep 60 seconds, to wake up and check again if needs to take a nap or keep getting new data.