#include <SoftwareSerial.h>

#include <TinyGPS.h>

TinyGPS gps;

SoftwareSerial ss(4, 3);

float flat, flon;

unsigned long age;

void setup() {

Serial.begin(115200);

ss.begin(9600);

}

void loop() {

gps.f\_get\_position(&flat, &flon, &age);

Serial.println();

Serial.print("lat: ");

print\_float(flat, TinyGPS::GPS\_INVALID\_F\_ANGLE, 11, 6);

Serial.print("lon: ");

print\_float(flon, TinyGPS::GPS\_INVALID\_F\_ANGLE, 11, 6);

Serial.print("vel: ");

print\_float(gps.f\_speed\_kmph(), TinyGPS::GPS\_INVALID\_F\_SPEED, 6, 2);

Serial.println();

smartdelay(800);

}

static void smartdelay(unsigned long ms)

{

unsigned long start = millis();

do

{

while (ss.available())

gps.encode(ss.read());

} while (millis() - start < ms);

}

static void print\_float(float val, float invalid, int len, int prec)

{

if (val == invalid)

{

while (len-- > 1)

Serial.print('\*');

Serial.print(' ');

}

else

{

Serial.print(val, prec);

int vi = abs((int)val);

int flen = prec + (val < 0.0 ? 2 : 1);

flen += vi >= 1000 ? 4 : vi >= 100 ? 3 : vi >= 10 ? 2 : 1;

for (int i=flen; i<len; ++i)

Serial.print(' ');

}

smartdelay(0);

}