**规格说明**

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| DIMENSIONS  规格 | 2,5cm (height) x 6cm (length) x 2cm (width).  **Can be modified by a small margin** | **高2.5cm 长6cm宽2cm**  **尺寸按实际需求可以修改** |
| DISPLAY  显示 | LED or LCD – red, green, yellow light, black numbers. Is about 70-80% of the panels size.  **Can be modified by a small margin** | LED或者LCD材质的红色，绿色，黄色的灯，黑色的数字，屏幕大约占面板大小的百分之70~80。 |
| TECHNOLOGY  技术 | Integrated High frequency GPS 50-100Hz  9-axis IMU (acc, gyro, mag)  Bluetooth LE to connect and transfer to mobile app  Memory 1GB – RAM  Powerful CPU  Battery minimum 8h | 高频集成的GPS频率50~100HZ, 高精度的陶瓷天线  9轴IMU  有蓝牙LE链接和传输到移动设备  内存 1GB  强大的处理器  电池最低使用8小时 |
| FUNCTION 1  功能1 | SET MINUTES TO COUNTDOWN  Set optional 10,20,30, whatever minutes countdown to 0.  When half way light yellow for 10s with sign – HALF  WAY. When time comes to 0 light RED with sign – FINNISH | 设置分钟倒计时  设置可选择10、20、30，或其它任何分钟倒计时为0  当时间还有一半的时候黄灯亮10S指示、当计时到0的时候红灯指示，然后回到倒计时画面。 |
| FUNCTION 2  功能2 | EACH LAP PASSING  The fastest lap is the benchmark, when you make faster lap than you fastest the display lights GREEN with displayed difference (for example - 1'43s), which means you are 1'43s faster than your fastest lap. The same can go if you are slower (for example +1'43s) but the display in this case lights RED. Each lap the display notifies you if you are faster or slower for 10s then the normal countdown resumes. | 每圈传递  以最快的圈做为基准；  当你跑得更快，用绿色背光灯且显示差异（例如 - 1'43秒），这意味着你比你最快的圈快了1'43s。这时这个最快圈的时间又做为了新的基准。  如果你较慢（例如+ 1'43秒），在这种情况下的显示红色背光与差异。每圈的差异显示10秒后，恢复正常倒计时。 |
| FUNCTION 3  功能3 | WHEN STARTING A SESSION  When you start you need to set a point on the track (GPS) that marks your start/finish line. When you position yourself on a track and press the ''start session'' button the line is set 3m in front of you, so you can start tracking right away. | 当开始一个会话  当您开始时，您需要在轨道（GPS）上设置一个标记您的开始/结束线的点。当你将自己放在一个轨道上并按下“开始会话”按钮时，该线设置在你面前3米处，这样你就可以立即开始跟踪。 |
| FUNCTION 4  功能4 | JUMPING  Height, distance, time in the air, G-force at landing | 跳跃  高度，距离，在空中的时间，在着陆时的重力 |
| FUNCTION 5  功能5 | SPLIT TIMES  Set different points on the track to be able to time split times on different sectors. | 时间分割  在轨道上设置不同的点，以便能够在不同区间上进行时间分割。 |
| FUNCTION 6  功能6 | OTHER TIME MEASURE FUNTIONS  Log of all lap times, total time of session, differences between lap times, slowest and fastest lap time, max speed, average speed, max air, max air time, max distance, max G-force. | 其他时间测量功能  记录所有圈数，总时间，圈数之间的差值，最慢和最快圈速，最大速度，平均速度，最大空气时间，最大距离，最大重力。 |
| 请参阅word文档中的规格。外箱不重要。 每个组件（gps，9轴IMU，电池等）和成品的报价。 | | |

Dear Sir/Madame,

设备是“固定到路边的车辆，特别是自行车越野赛等……

The device would measure lap times via high frequency gps and jumping activity and G-force via 9-axis IMU.

设备将通过高频gps测量每圈的时间、通过9轴IMU测量跳跃活动和G-force重力

In realtime (on the device while riding) we only need to see function 1,2,3, thus the display on which you can see if you are faster or slower o the track while riding.

实时（设备在骑行时）我们只需要看到功能1,2,3，因此，你可以看到，如果你在骑行时更快或更慢的轨道的显示

Other data (9-axis IMU) along with the complete timing data should be in sync and loged in the device in files (the best would be 1 session = 1 file)  and then transfered to mobile via bluetooth after you stop riding at the end of the session.

 其他数据（9轴IMU）以及完整的计时数据应该在文件中同步和驻留在设备中（最好是1个会话= 1个文件），然后在停止骑行会话之后通过蓝牙传输到移动设备。

The battery should last minimum to measure  10-15 sessions. Each session is approximately 30 min long - that means 5-7h of constant use before charging.

 电池应该持续最小可以测量10-15个会话。每个会话约30分钟长 - 这意味着在充电前5-7小时不间断使用。

The dimensions are not set in stone, you can deviate but as little as possible (max 20% to the upside) Better to make the device thicker than larger in 2d view (a and b axis)

尺寸不是一成不变的，你可以偏离但尽可能小(最大上行20%)，最好是使设备更厚增加而不是2D长宽(a和b轴)

FUNCTION 4 : Please refeer to:

<http://learn.parallax.com/support/reference/activity-board-wx-block-reference/sensor/lsm9ds1-9-axis-imu>

<http://www.starlino.com/imu_guide.html>

功能4，参考以上两个网址。

With this sensor we can basicly measure how far, high you jump with a motorcycle and what is the G-force when you land.

We only need the data synchronized with GPS (time data & IMU data) so we can program what happens at what specific time.

有了这个传感器，我们可以基本上测量多远，跳多高和摩托车着地时的重力，我们只需要与GPS（时间和IMU数据）同步的数据，因此我们可以编程在什么特定时间发生什么。

FUNCTION 5：For split times please refer to this：

<http://americanmotocrosslive.com>

功能5的分次分析请参考以上网址

The split times are column S1,S2,S3,S4. They mean you basicly divide the total lap by 4, so along with the total lap time you can measure time in 4 different sectors (this is just a example, you can choose yourself how many split times you want to set, ideal would be up to 5).

把时间分割为S1，S2，S3，S4。他们的意思是你把总圈数除以4，所以你可以在4个不同的圈数区间测量时间（这只是一个例子，你可以选择自己想要设置多少分段时间，理想的至5）。

We would achieve this with GPS by positioning ourselves on other point of the track than start point and press the button to

which the device would remember it as not Start/finish but rather only a time sector. Do you know what I mean?

我们将通过GPS定位自己实现这一目标，可能在赛道的其他点的而不是起点或终点摁下按钮

设备将记住它不是开始或终点，而是仅仅是做为时间区间。你懂我的意思吗？

FUNCTION 6: We can program all that from collected data. Lap times and max speed from GPS data and others from IMU data.

功能6：我们可以编程所有收集的数据。 每 圈时间、最大速度从GPS数据，其他从 IMU数据。

You do not need to develop mobile app or outside box, we will do that. We only need the data to be organized as simple as possible in files that are transfered to mobile app, where we would program the analysis of the data. We would need to know i think the source code so we can program from your data.

你不需要开发移动应用或外框，这些我们会做。我们只需要尽可能简单的数据能传输到移动应用，我们将对数据进行编程分析。我们需要知道源代码这样我们可以从你的数据编程。

The technical things are not 100% clear to me either and I need to consult with my programing guy. Please ask if anything is unclear and I will get you an answer as soon as possible.

 技术的东西对我也不是100％清楚，我需要咨询我的编程伙伴。请问，如果有什么不清楚，我会尽快给你答案。

Sebastijan

Hello,

FUNCTION 1: Half way is ment by time definition not distance definition

功能1： 一半是由时间定义而不是距离定义

Example: I want to ride motorcycle for 20 minuter, so I set up countdown clock to 20 min. When the clock reach 10 min I get a sign HALF way. the 10s interval is only ment so that you have a few seconds to notice the sign, so you dont miss it. The sign is thus displayed only once on 10 min mark (in this case). If i would choose to ride for 30 min, the HALF way sign would be displayed in 15 min.

例如：我想骑摩托车20分钟，所以我设置倒计时时钟到20分钟。当时钟达到10分钟我得到一个标志HALF方式。 10s的间隔只是提醒，所以你有几秒钟注意到标志，所以你不会错过。因此，在10分钟标记（在这种情况下）下，标记仅显示一次。如果我会选择骑30分钟，HALF方式标志将显示在15分钟。

FUNCTION 2:

Again the 10s is only so the rider have time to notice. The rider will know where the start/finish line is set, so he will know when to look down at the device and see if he is faster or slower. The device would give him a 10s time to have a chance to look down and see if he is faster (green display) or slower (red display).

还是这个10秒，只是因为骑手有时间注意。骑手将知道开始/结束线设置在哪里，因此他将知道什么时候向下看设备，看他是更快还是更慢。设备会给他一个10s时间有机会往下看，看看他是更快（绿色显示）还是更慢（红色显示）。

After this 10s the normal countown resumes and no light is needed.  So basicly the device only light up:

- yellow at half way for 10s

- red or green each lap when passing start/finish line for 10s

在这10s后，恢复正常的倒计时，且不需要背光指示灯；所以基本上设备只点亮：

在一半时黄灯十秒

当每圈通过开始/结束线时，红灯或绿灯为10s

Other than that is normal countdown from preset time at the beginning of riding session.

除此之外是从骑车开始时的预设时间起的正常倒计时。

Hopefuly this clear things up.

希望都说清楚了。

Regards