

TinyTag Data Sensor

Physically the sensor consists of 2 small plastic boxes and the headband which contains the IR detectors and hit LEDs. It is designed to be mounted on a velcro headband around any form of headgear (or even without). One plastic box houses the battery pack which runs off 3xAAA batteries and also contains the on/off switch. The second box contains the sensor circuitry along with a pushbutton and a piezoelectric sounder.

Sensor controls

The sensor is pretty simple. It has 1 button to control it and a simple slide on/off switch located on the battery pack.

The new Data Sensor is capable of a lot more than the older sensors, using one however is not that much different to using the old version. The hardware is the same, so there's only the on/off switch, a single push button, a sounder for noise and finally the hit LEDs mounted with the detectors.

There are a few more bits to remember however but hopefully you should pick it up pretty quick.

Switching On and Setting Your Hits

One of the biggest differences between the Data Sensor and the old version is that it remembers what condition it was in when it was turned off. If you started the game on 6 hits and were injured and were on 2 hits when you switched it off, then when turned back on you will still be on 2 hits. If you were Wounded before (flatline tone) then you will still be Wounded if you switch it back on. This allows a game to continue after a break with the players exactly as they were before, even if that means they were dying of radiation poisoning or boosted beyond their normal hits by some combat drugs.

Of course when starting a NEW game you want a 'clean slate'. This is achieved by **holding down the push button when you switch the sensor on**. This clears any and all damage, boosts or special effects that the sensor may have had.

It will start on the same number of hits it was last manually set on. You will hear the sensor audibly count out the number of hits as well as the hit lights will flash, so 4 hits is 4 beeps/flashes. If that is the number of hits the sensor should be set on then just wait a few seconds and the sensor will play its initialisation noise (which mimics an original starsensor).

I changed the way you set hits in the last version of the software, this makes it quicker to set hits and hopefully reduces confusion. If your sensor uses the original method and you would like to update it please just ask.

Old method - If you need a different number then pushing the button removes one hit, you can keep doing this until it reaches one hit remaining, pushing it again loops it round to 9 hits.

New - If you need to set a different number of hits then push the button once for each hit you want to add. You will hear a short beep confirming the press. So for example if you want to set the sensor to 5 hits just push the button 5 times. Once you have the number you need just wait for a couple of seconds and the sensor will play the initialisation noise.

If you exceed 9 presses (for 9 hits) then the sensor will play an error noise (3 rapid beeps). This will set the sensor back to whatever it was on before you started. You can try setting the hits again though before the 2 second timeout happens.

Configuring a sensor manually this way allows you to select between 1-9 hits. Once you have the number of hits you require just wait a few seconds and the sensor will play the initialisation noise and at that point its ready to go.

Note - With data it is now possible to configure a sensor via infrared. Don't worry about this as its something built in to make it easier for game organisers to rapidly and easily set up sensors. They will just 'zap' the sensor and it will be configured for you, you don't have to do a thing.

Using the Data Sensor In Game

When you are shot the sensor will give both audible and visual feedback. If you are hit for 1 point the sound is the same as the previous sensors hit noise (high tone followed by 3 low tones). With data it is possible to take more than 1 point of damage from a shot though. If more than 1 point of damage was caused then there are extra high tones before the low tones. The more damage the more beeps.

Stun damage and Healing will play different noises too so with a little practice it becomes possible to tell what you were hit by.

Checking your Hits. Its usually a good idea to check how many hits you have left periodically, especially after a firefight. To accomplish this you press and release the push button (quick press). This will make the sensor beep the number of hits you have left (just like when you set up your hits). In this way you can keep your eyes on your surroundings. It takes a little practice but is easily learned. Sometimes a shot can cause no damage so wont reduce your remaining hits. In which case you were lucky, its more likely though that the attack was some form of delayed action damage. This type of damage is called Ongoing Damage.

NEW - if you hear 3 rapid high pitched beeps after checking your hits you are in trouble. The 3 warning beeps are an indication that you are suffering some form of ongoing damage effect. You may of been shot with a poison dart, have been exposed to a radiation field or caught a disease etc. For whatever in game reason you will continue to take damage in the future. This could be every hour, ten minutes or in worse cases every minute. Go see a doctor, hopefully they will have something that can treat your condition.

While you have hits remaining you can check your remaining hits at any time by pushing the button.

If you have taken damage but still have hits left you are termed 'walking wounded'. Its usually easier for a medic to treat you while you are walking wounded so unless doing something important its probably a good idea to go see a medic.

What happens when I Lose All my Hits ?

When you lose all your hits the sensor will make a continuous flatline tone and light up like a christmas tree. You are now classed as Wounded/Unconscious. You should fall over and act that way (where it is safe to do so). At this point you are a casualty and can't really do anything until given some form of medical attention that will treat or mitigate the damage. **DO NOT** turn the sensor off. You can however stop the flatline tone by pushing the button once. Pushing it once stops the noise but the hit lights will still be lit up continuously. This lets everyone know you are out of it and is also a handy beacon for the medics ;) Do not push it again until a medic has seen you.

When you are reduced to zero hits there is a chance that you could 'bleed out' and die before receiving medical attention. This grace period is generally 20 minutes (but can be configured differently via IR). If the sensor starts making the flatline tone again then that means you have unfortunately died - whoops. The only way to stop the tone now is to turn the sensor off.

However if you receive medical treatment in time the chances are you will be alright. Just follow the Medics instructions. If using traditional SAMS or other non data medical rules then once the medic has treated you push the button again. This will beep once and start a count UP timer. The medic will normally tell you how many minutes you have to wait before you can reset your sensor. This count UP timer will beep once after one minute, twice after 2 etc. This allows you to time how long you have waited since the medic treated you and reset after the appropriate delay. Once you can reset then just hold the button down while switching the sensor on and wait a few seconds. Just like when you set up the sensor.

NEW - If the medic is using a data enabled Medical Device though then things are a bit different. They will just zap your sensor and tell you about any other special in game effects that the rules in use apply. The zap will restore 1 or more hits either immediately or after several minutes delay. If the medic zap isn't immediate then you will hear a countdown timer. The sensor will beep once for each minute remaining. So if the delay was 4 minutes the sensor will beep 4 times, after each minute has passed the time left will be played. Once the delay is up the sensor will automatically reset itself.

Getting treated by a medic device **BEFORE** losing all your hits (walking wounded) is always immediate. This is another good reason to go see a medic before you have lost all your hits.

With the data based Medic system how many hits are restored can vary. You may get all your hits back or only a few. It all depends on what sort of medical 'supplies' the medic has been issued with. In rare cases its also possible to temporarily get **MORE** hits than you would normally have. Depending on the game genre things like combat drugs, nano boosters, magical effects etc could all potentially give you a boost, even above normal human maximums.

The new data sensor has another **VERY** important addition.

Stun Damage

Not all damage done is permanent. We can now simulate weapons/effects that cause stun damage. Baton rounds, tranquilliser darts, gas grenades, tasers etc all cause temporary damage. Whatever the in game reasoning behind it, this is classed as Stun Damage. The data sensor keeps separate track of how much stun damage it has taken. This value has a maximum of ten points. After every minute the value is reduced by one point until its back at zero.

If the amount of Stun Damage you have taken is ever **EQUAL** to the amount of hits you have remaining then you are Stunned. The sensor will make an alternating tone sound while you are Stunned. This noise is different from the zero hits flatline tone and the hit lights **DO NOT** light up as they do when you have no hits left. Please act appropriately.

While stunned you are **still in the game**, and can **still be shot** etc, as you have physical hits left. You can also still push the button and check your remaining hits. **Do NOT** turn the sensor off. If turned off the stun effects can't wear off with time.

Once the amount of Stun Damage is **LESS** than the number of hits you have remaining the sensor will stop the Stun noise. You are now conscious again and can take independent action as normal. You may still have stun damage left at that point (as it is only reduced by one a minute) so further damage either physical or stun could knock you Unconscious again.

It is possible that a medic or other player could have a medic device with some stimulant which would remove any stun damage you may have received or you can just wait until it wears off naturally.

Near Misses. Sometimes a shot doesn't quite come close enough to hit. When this happens the sensor makes a short low beep. Keep an ear out for this as it's a valuable warning that you need to get into cover.

Lights On/Off - some games use a rule called Lights On at the discretion of the game organiser. When the Lights On rule is in use a players sensor must have some form of location light. This is mainly used on some night games to make it easier to locate the players. The sensor can be put into Lights On mode by pushing and holding the button. You will hear either a low or high pitched beep, high pitched means you have enabled Lights On mode, low pitched means you have turned Off the lights on mode. When Lights On is enabled the hit lights will dimly flash periodically. The less hits you have the faster they flash until you have one hit remaining. When you have one hit left the lights go off to make it harder for someone to take your last hit.