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| **“Measuring Microclimates: A Walk Through the City”** | |
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| How noisy is this!  Today we are going to talk about microclimates and compare the noisy area in a city junction with a quiet city park.  All we need is the Labdisc with its three built-in sensors: temperature, humidity and GPS.  We will set the Labdisc to record these 3 sensors and simply walk from this point to the park.  Let’s program the Labdisc in the field.  We will go to the Labdisc menu, select the sensor setup… here we can select the sensors, sample rate and the amount of samples we are going to take during this recording.  In the sensors we select temperature, humidity and GPS. Using the GPS allows us to put the sensor data on Google maps.  Sampling rate we will select one sample per second.  And take a total of 1000 samples.  This is the GPS coordinates showing us exactly where we are on our planet.  All we need to do is press the run button, we’ll start recording and we’re ready to go.  We will place the Labdisc in the bag with the special ventilation net allowing the Labdisc to feel the environment. | STANDING AT A LOUD INTERSECTION  PROGRAMMING THE LABDISC  PLACE IN BAG AND START WALKING |
| What a relief – we are here in the park and you can really feel the difference. The temperature is a bit lower and the humidity is a bit higher.  It’s all because of the grass – it evaporates water, taking the heat from the environment. | STANDING IN PARK |
| Ah! I should do this more often.  Ok now let’s download the data.  We have our iPad here and we can communicate wirelessly with the Labdisc so we simply download our data.  walking. | SITTING UNDER TREE WITH LABDISC AND IPAD |
| You can clearly see the graphs of the temperature and the humidity. This is the data we have collected along the way from the city junction to the park.  As you can see the temperature at the city junction was 30.48 degrees celcius, while in the park it went down to 28.4. This is 2 degrees difference which is amazing for just 400 meters of walking.  The humidity started at 67% at the city junction, went up to 74.6 due to evaporation of the grass.  We can also see a table of all the data we have collected. You can see the humidity, you can see the temperature, but also you can see the GPS data - longitude, latitude, speed and angle.  But even more impressive is the map view. As we have a GPS, we can plot all the data we have collected over Google Maps.  Look here. this is the park. This here is the junction. You can even see our walking speed from the city junction to the park. As you can see it was 4 km an hour.  Let’s see the temperature. At the junction you can see it’s red because the temperature is high. 30.1 or 30.5. When we walked to the park the temperature went down to 28.7.  Look how beautiful this is! Much better than just a graph because it tells the full story of what we did. The same goes with humidity – in the junction; and in the park.  Now you can see that the parks are not just important for producing oxygen, but they also cool the city on hot summer days. | CLOSE-UP OF IPAD SCREEN |
| We all know that the parks and trees play an important role in reducing pollution in our environment. But as we just learnt they also produce microclimates which help cool our cities. | SITTING UNDER THE TREE, HOLDING LABDISC |
| Now after all that walking and analysis I think I deserve a rest! | LIES DOWN AND CAMERA PULLS AWAY |
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