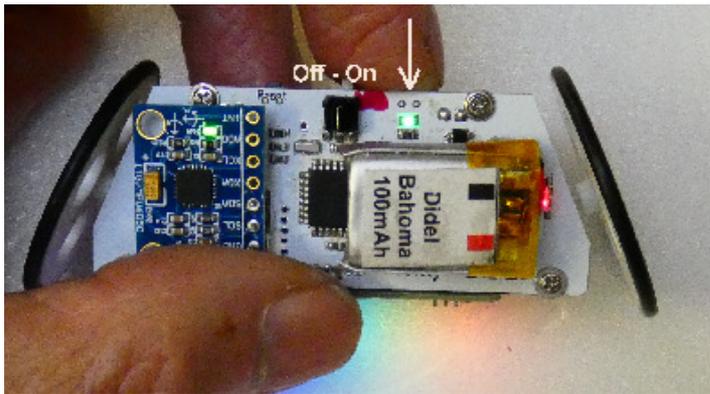
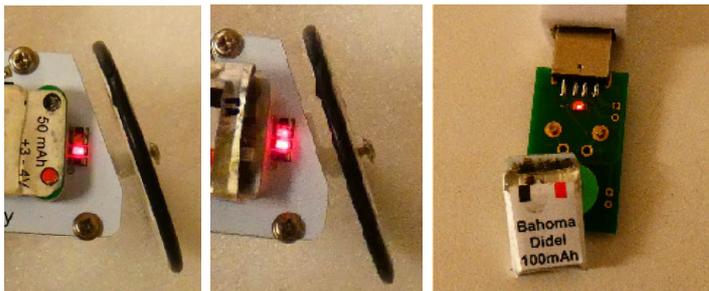
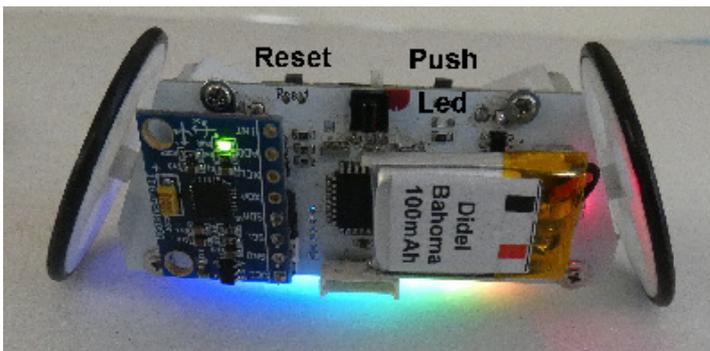


All docs on www.didel.com/Witty.html



Add the Bahoma Lipo and set the power switch to On. If all is well you should see a nice rainbow on the Apa102 strip. The two red LEDs close to battery show the charging level of the battery when powered; once one of the LEDs start to get dim it may be time to recharge. You will soon get a feeling on how to translate the intensity of the two LEDs into remaining charge. Now see the green Led. At power-up, it blinks two times before starting fast blinks. Depress 1,2,3,4,5 or 6 times the pushbutton on top of the green led to select a demo..



You get together with the Witty an Ucha charger. Insert it into any 5V USB PC or power source and drop the Lipo **onto the magnetic contact posts**; its Led is off when charged (ca 3 hours). Use the LipoTest **board** to check the wellness of the **Lipo battery**: it is not only **about** voltage, but **also about** internal resistance. Depressing the **both** switches loads the Lipo with 100 mA; voltage drop is a good indication. All details on www.didel.com/Bahoma.pdf

Whats on the card? (details on Witty.pdf)

The Witty card is similar to the Arduino Mini; for programming, an USB to serial module named Gaia is connected on a 1.27mm connector – check the alignments. The driver is for a CH340G if it needs to be installed. Select Duemilanove on Tools and click to select the Com.

Demo2 get on Witty.html:

www.didel.com/WittyDemo.pdf
www.didel.com/WittyDemo2.zip

1 Depress one time and put the Witty in a box.
The test just powers the motors on-off for 20 seconds

2 Depress two times and put the Witty in a box.
The test makes simple forward and back movements at different speed for 2 seconds: PFM values are 1, 4, 20, 90% on the 25 (1sec at 90%)

3 Get any TV remote controller. Depress three times and put the Witty on the ground.
The green led shows the activity of the IR transmission. The soft decode streams of short pulses. One pulse stops, 2 pulses start, etc, up to 5.

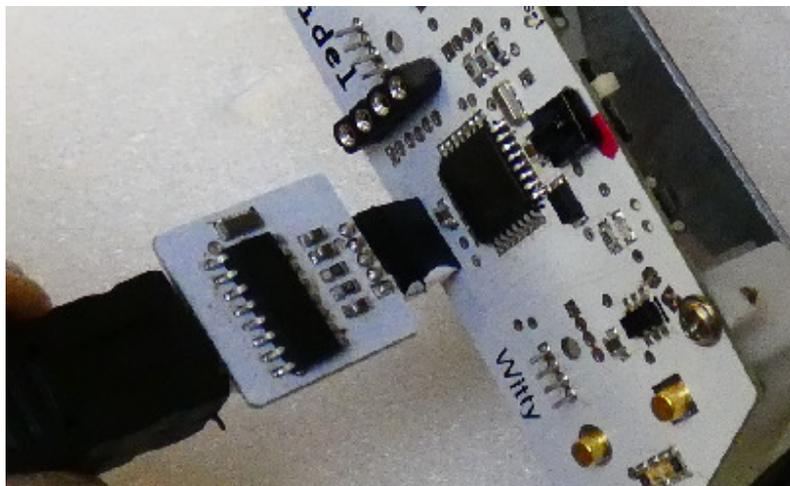
4 Depress 4 times and the Gy521 will influence the color with naïve comparisons. If already connected to Arduino IDE, serial terminal selected, the 6 acceleration and gyroscope values will be displayed.

5 Depress 5 times. You get a simple show on the RGB strip. The PWM values for the light intensity vary between 0 to 255. But we go through a table and progress through the value 0,1,2,4, 6,9,12,17, 27,37,53,78, 100,144,198,255. Being linear is no sense with Leds and little sense with motors.

6 An 8-bit binary counter. Simple C, but you need some thinking to handle the LEDs separately.

Programming the Witty

Do not insert Gaia connector when Gaia is linked to the PC. 1.27mm pitch is small, shorts may happen while inserting. If correctly aligned it inserts easily. Note the white marks.



See www.didel.doc/WittySoftware.pdf and enjoy Witty programming. Start modifying the demo and understand the advantages of #include files and easy C.