

# Safety rules & tips

- Keep the batteries protected until they are connected
- Be careful with the LED pins: they are sharp and can hurt
- Wash your hands after the activity
- Textile conductive thread is much better than copper tape
- For the younger kids and short time it is better to pre cut the pieces of conductive thread
- Scissors for kids are suitable for this activity. Left handed scissors are welcome



# e-Monster

Create your textile circuit  
and make it shine  
the color you want!

1 electronics  
setup



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101006203

# Materials & Tools

Materials:







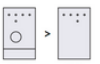

- 1- Goma Eva / Felt (50x80mm)
- 2- Goma Eva / Felt (50x20mm)
- 3- RGB LED 10 mm (common cathode)
- 4- Velostat (50x20mm)
- 5- 3V Battery
- 6- Conductive tape (preferable textil)

Tools:

- Scissors
- Adhesive tape



## MATERIAL'S LIST

- |   |   |
|---|---|
| 1 RGB LED   | 1 Goma Eva (50 x 20 mm)   |
| 1 Battery   | 1 Velostat (50 x 20mm)  |
| 1 Conductive tape   | 1 Scissors  |
| 1 Goma Eva (50 x 80 mm)   | 1 Adhesive tape   |
| 1  | 1  |
| 1  | 1  |
| 1  | 1  |
| 1  | 1  |

# RGB Monster

## Step by step instructions

**1 :** Cut 4 pieces of 8cm of conductive tape.



**2 :** Paste 3 of them on the back side of the Goma Eva (50x80mm).

- Do not cut the tape that sticks out.



- Fold the tape that sticks out to the front part. Cut the tape if it goes beyond the line.



**3 :** Align the longest leg of the RGB LED in the row with two holes, insert the LED in the Goma Eva, as shown in the schamatics below :



**4 :** Paste the fourth piece of conductive tape under the longest leg, as shown below :



**5 :** Secure the leg on the track with another piece of tape on top of it.



**6 :** Repeat this process for each leg of the LED.



**7 :** Place the battery in the piece of Goma Eva, the (+) has to be facing up.



**8 :** Cut & paste 2 strips of conductive tape, of 5cm each, at the bottom of the Goma Eva rectangle.



**9 :** Place the Goma Eva battery holder on the circuit, as indicated on the schematics.



**10 :** Place the piece of Velostat on the battery. Test your circuit !



**11 :** Secure the battery holder on the Goma Eva with adhesive tape.



**12 :** Repeat this operation to secure the Velostat rectangle.



**13 :** Fold the bottom part on the battery holder, attach it loosely with adhesive tape. The LED should remained off is no pressure is applied.



**14 :** Press each track of the circuit and observe how the LED colors are changing.

