

SOLUZIONE ATTIVITÀ 5-16

Thymio equilibrista



The image shows a Scratch script designed to control a Thymio robot. The script is set to trigger when the green flag is clicked. It begins by turning off the LED and setting the velocity of port 'a' to 0 and port 'k' to 10. A green pen block is used to draw a line on the workspace. A 'per sempre' (forever) loop follows, containing several steps: a 'fai 5 passi' (do 5 steps) block, a 'porta alfa' block where the 'inclinazione' (tilt) sensor is selected and set to 'davanti-dietro' (front-back), a 'porta velocita' block where the velocity is calculated as $k * \text{alfa}$, a 'motori tutti con velocita' block where all motors are set to the calculated velocity, a 'cambia y di' block where the y-coordinate is changed by the velocity, and an 'attendi 0.2 secondi' (wait 0.2 seconds) block. The loop ends with a return arrow block.

```
quando si clicca su [bandierina verde]
  spegni LED
  porta velocita a 0
  porta k a 10
  penna giù
  per sempre
    fai 5 passi
    porta alfa a [inclinazione davanti-dietro]
    porta velocita a [k * alfa]
    motori tutti con velocita velocita
    cambia y di velocita
    attendi 0.2 secondi
```