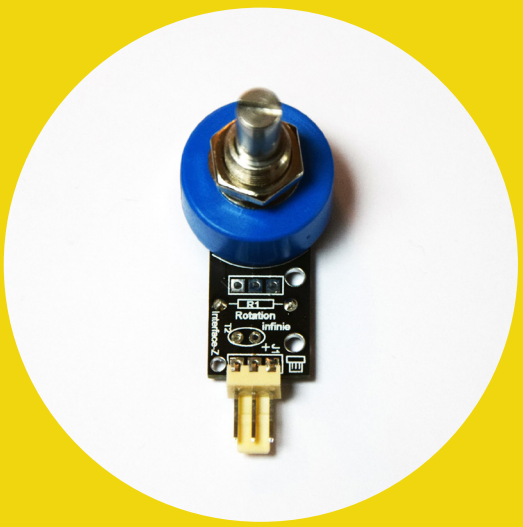
ROTATION

POSITION

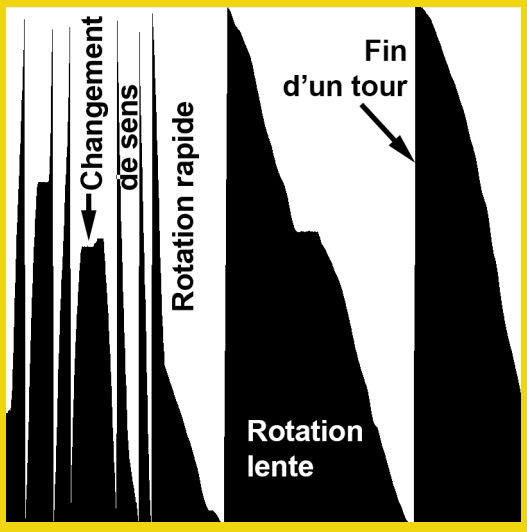
TORSION



MECANICAL

CONTACT

ANGLE



WHEEL

MOTOR

CONTROL

USEFUL

Capteur

Rotary Potentiometer

Detection

- Simple and easy to use : one just has to turn the rod to change the signal.
- Maintains a constant value after being manipulated : sends a value depending on the rotation of the rod, doesn't return to a maximum or minimum base value.

Turn amount and analog signal

- Many types of potentiometers exist, each adapted to a specific type of detection :
  - Simple, one single turn : data values go from 0 to maximum in one turn. Rod is usually blocked to one full turn on itself.
  - Multi-turns, with a specific number of turns (10 for example) : the values go from 0 to maximum value over the total amount of turns = over all the turns permitted by the potentiometer.
  - Infinit turns : data values go from 0 to maximum for each full turn of the rod and start over from 0 at next turn (i e the graph on the left)

Diverse applications

- Testing tool, manual use
  - testing a data acquisition chain.
  - to adjust a program's behavior, to choose esthetic parameters.
  - to manually simulate the behavior of another sensor.
- Handled by visitors / performers / musicians, to modulate visual or musical actions
  - linked with a lever, a button, a wheel, a handle...
  - bycicle wheels, ship wheels...
- Integrated into a mecanism,
  - combined with a rotating axis
  - measuring position / angle of a motor
  - motor control of movements programmed by a code
  - rotation information, torsion or short linear distance (by a crank-connecting rod system)

Possible Interpretations

- Measuring
  - an angle,
  - a position,
  - an inclination,
  - linear movement on a mecanism with a belt.
- Variation direction : turn left/right, screw/unscrew, forward/rewind...
- Angular speed of rotation or movement