

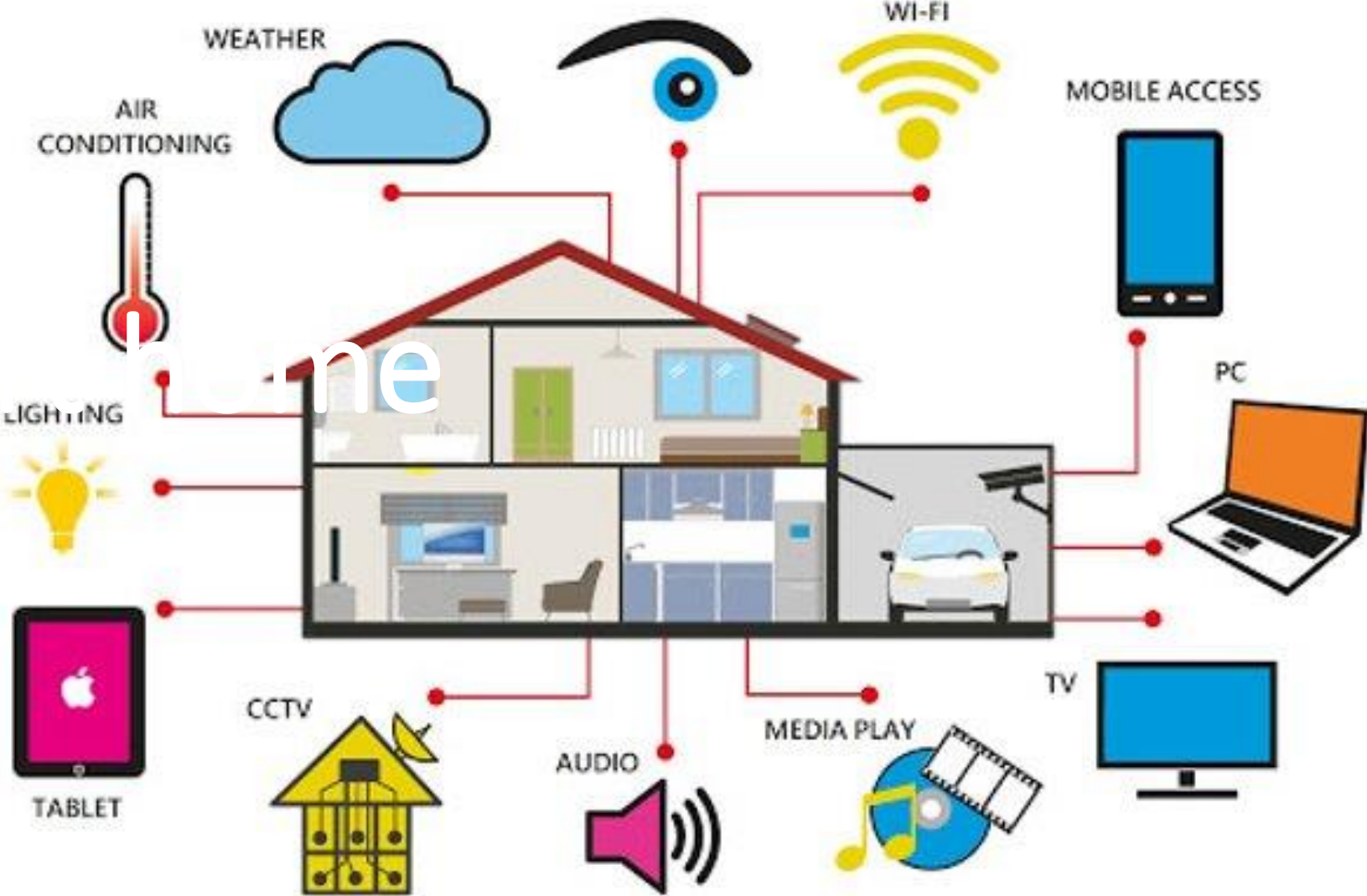


# Internetul Lucrurilor

Actuatori

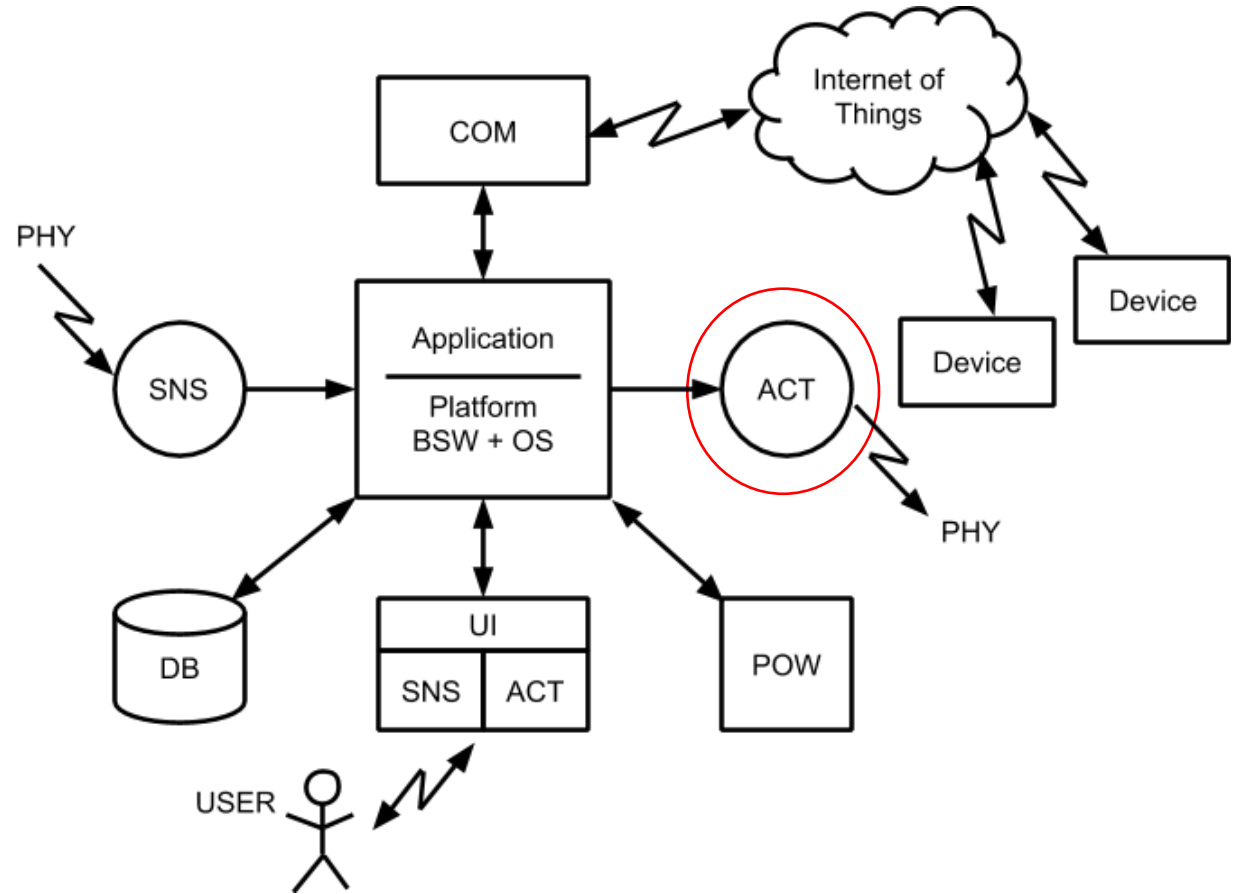
Actiune, Clasificare

# SMART HOME SYSTEM



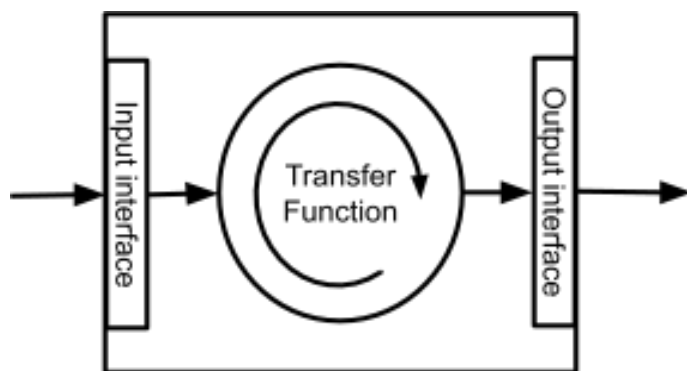
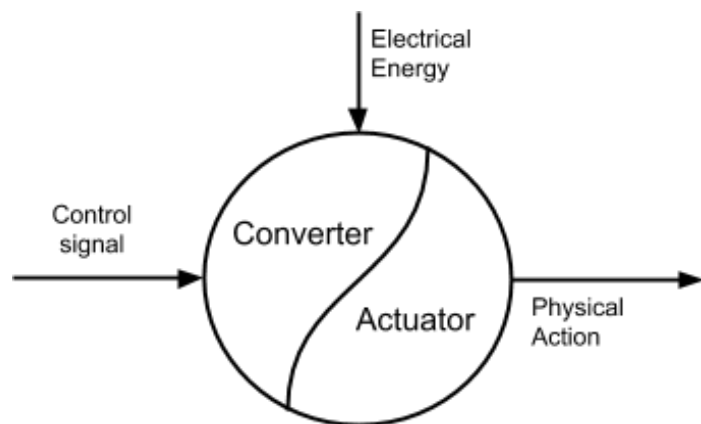
# Tipuri de interacțiuni

- Interacțiuni cu Utilizatorul
- **Interacțiuni cu Mediul**
- Interacțiuni cu Dispozitive (IoT)



# Actuator

Transformă semnal intern al sistemului într-o acțiune asupra mediului fizic



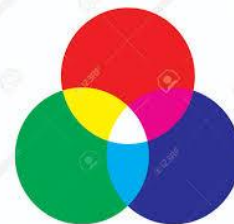
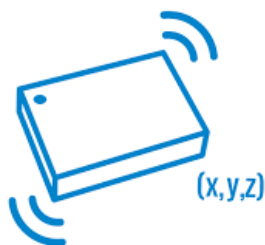
- Convertor – semnal electric de control in energie electrica aplicată actuatorului
- Actuator – energie electrica într-o acțiune



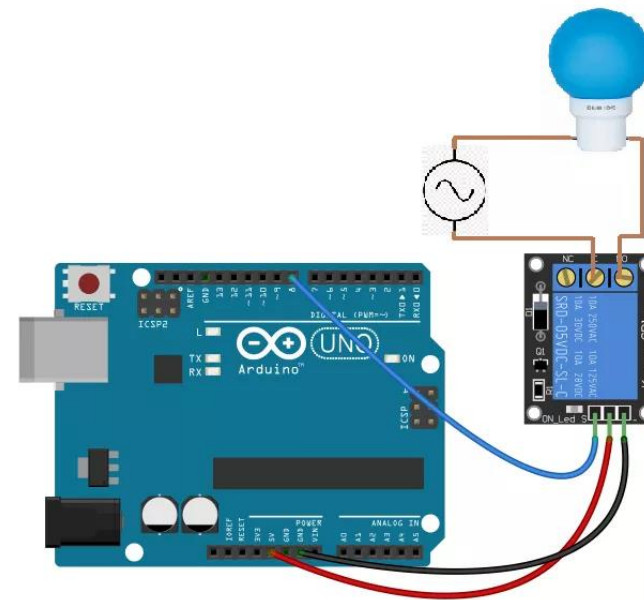
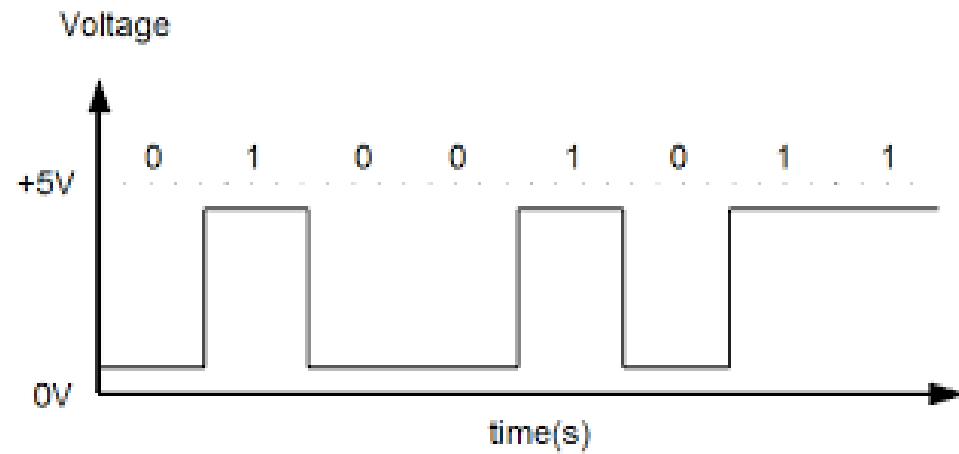
# Actuatori – Clasificări

- Natura parametrului
- Interfața actuatorului
- Destinația acțiunii
- Poziționare
- Feedback

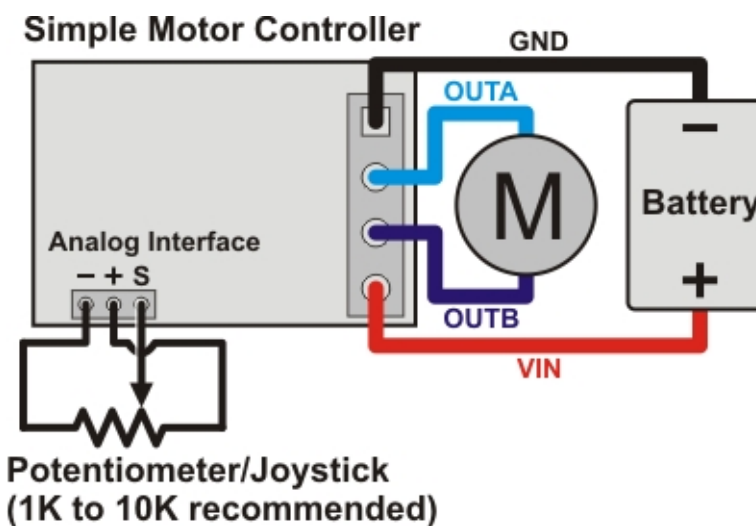
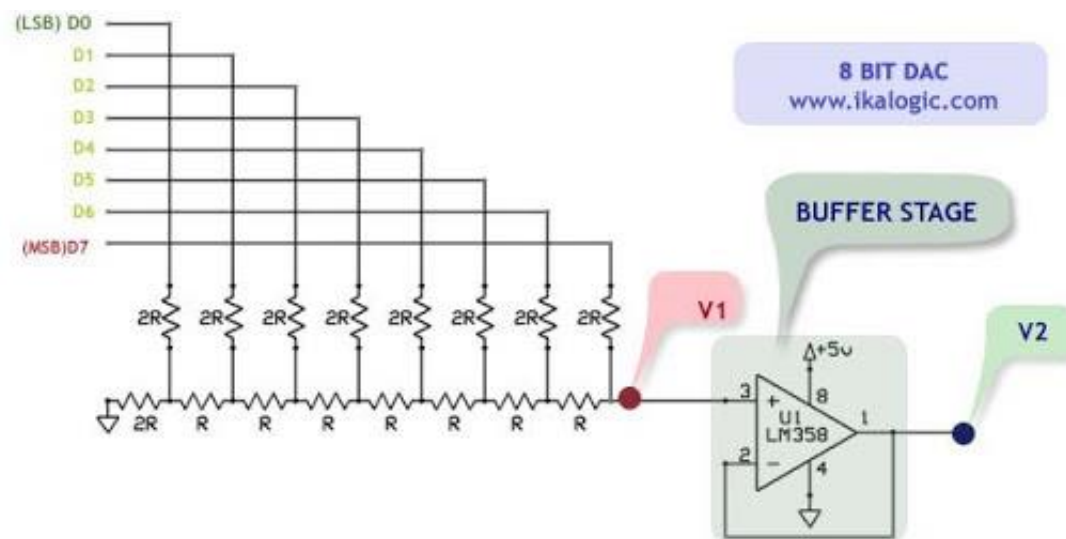
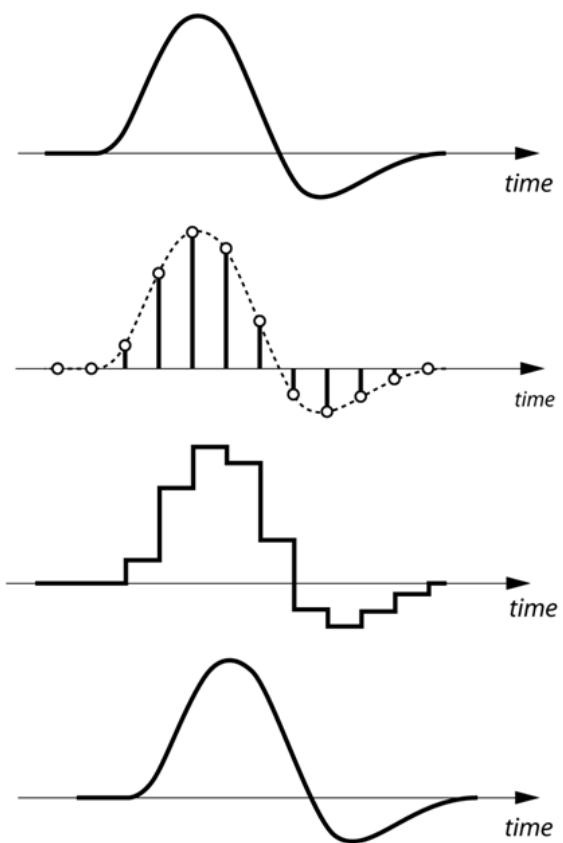
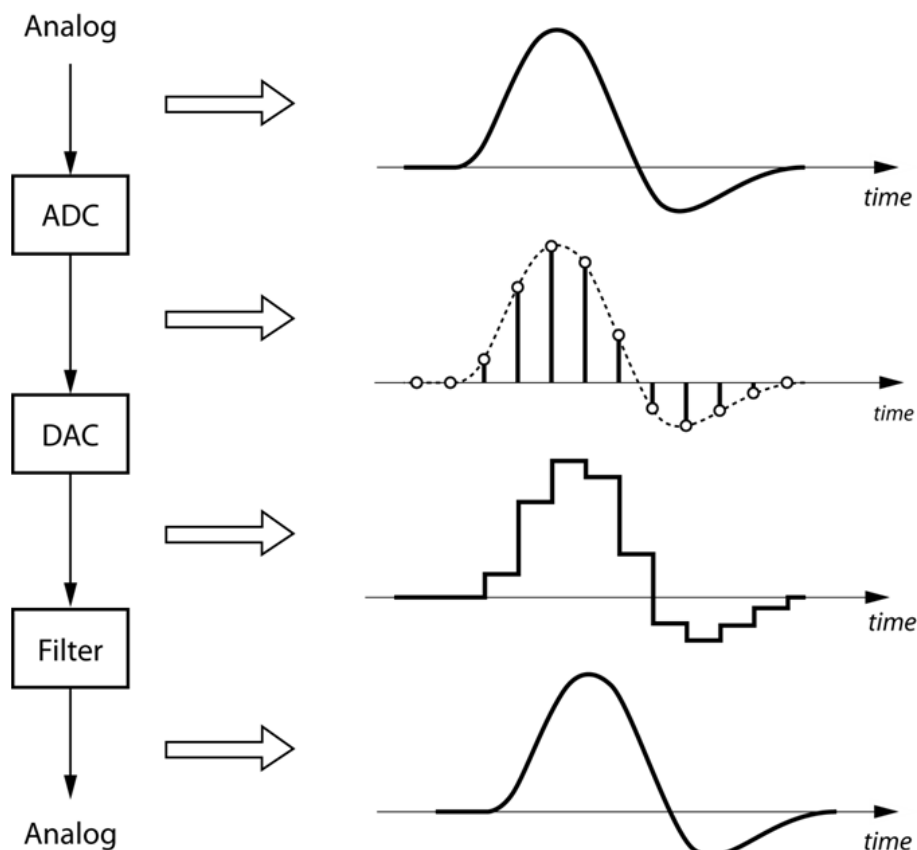
# Clasificare - Natura parametrului



# Interfață - Binară



# Clasificare Interfață - Analogică

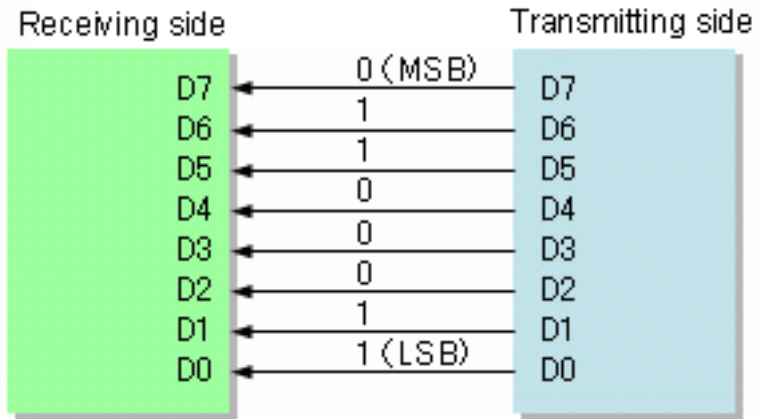




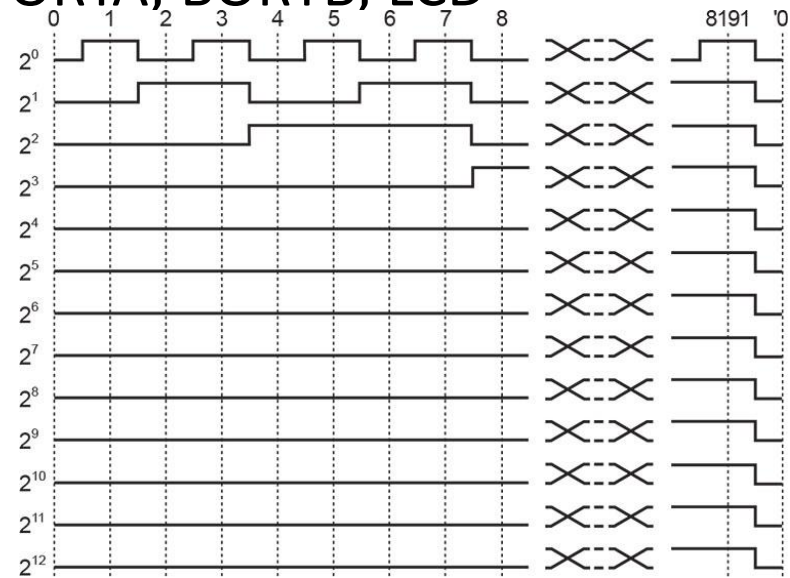
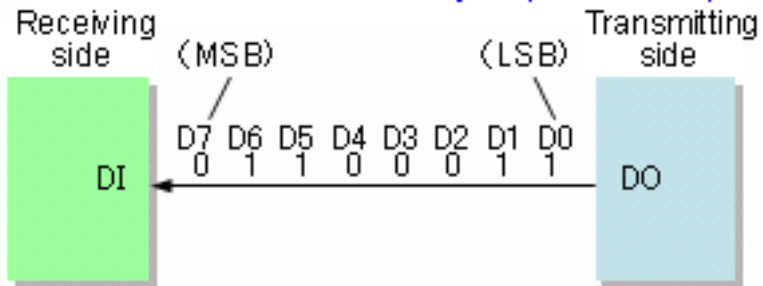
# Clasificare Interfață - Digitală

PATA, LPT, PORTA, BORTB, LCD

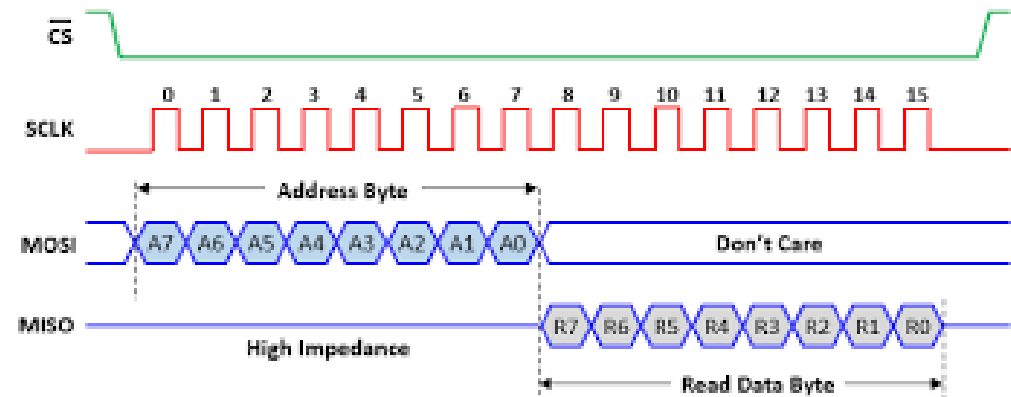
## Parallel interface example



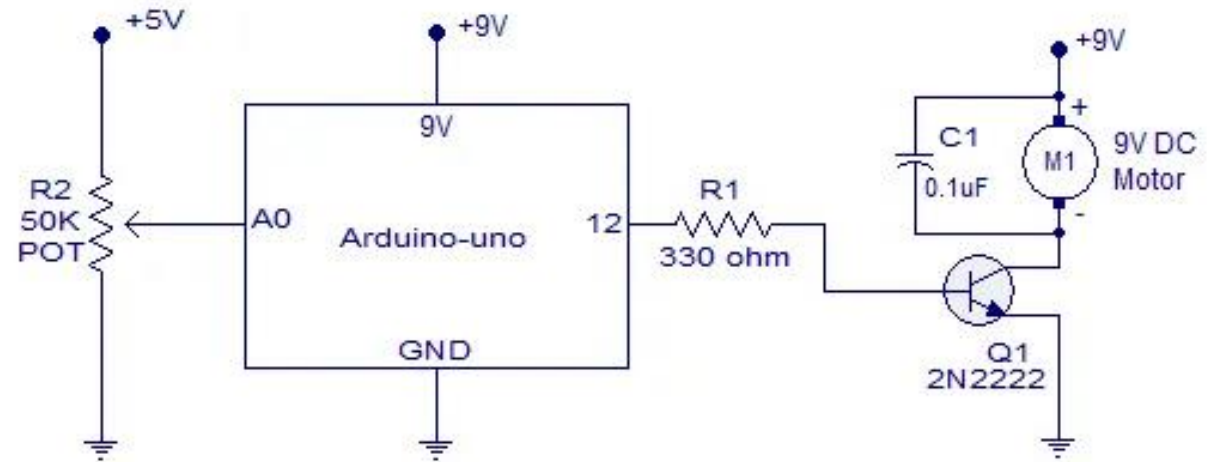
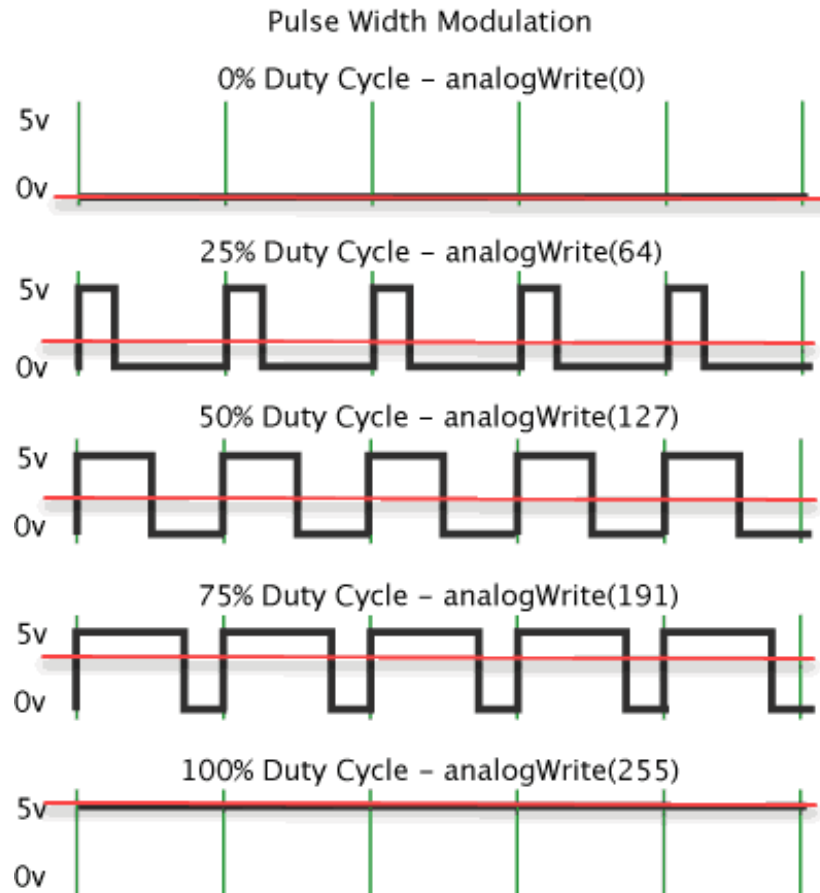
## Serial interface example (MSB first)



USB, SATA, I2C, SPI

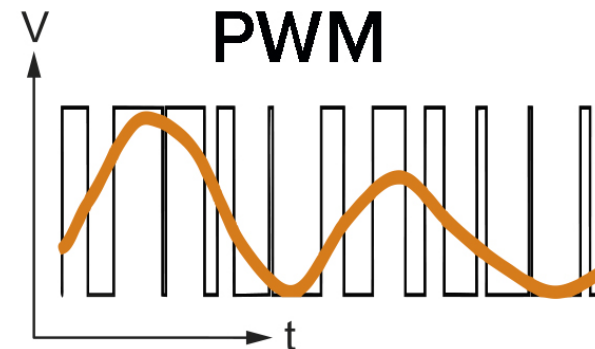


# Clasificare Interfață - Temporizata



PWM motor speed control using Arduino

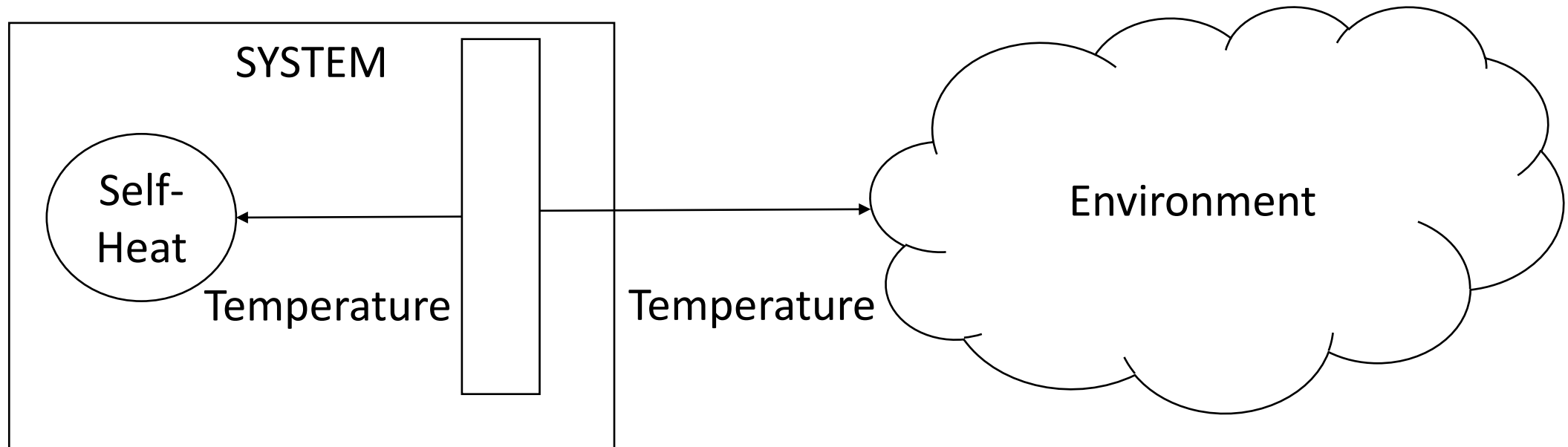
[www.circuitstoday.com](http://www.circuitstoday.com)



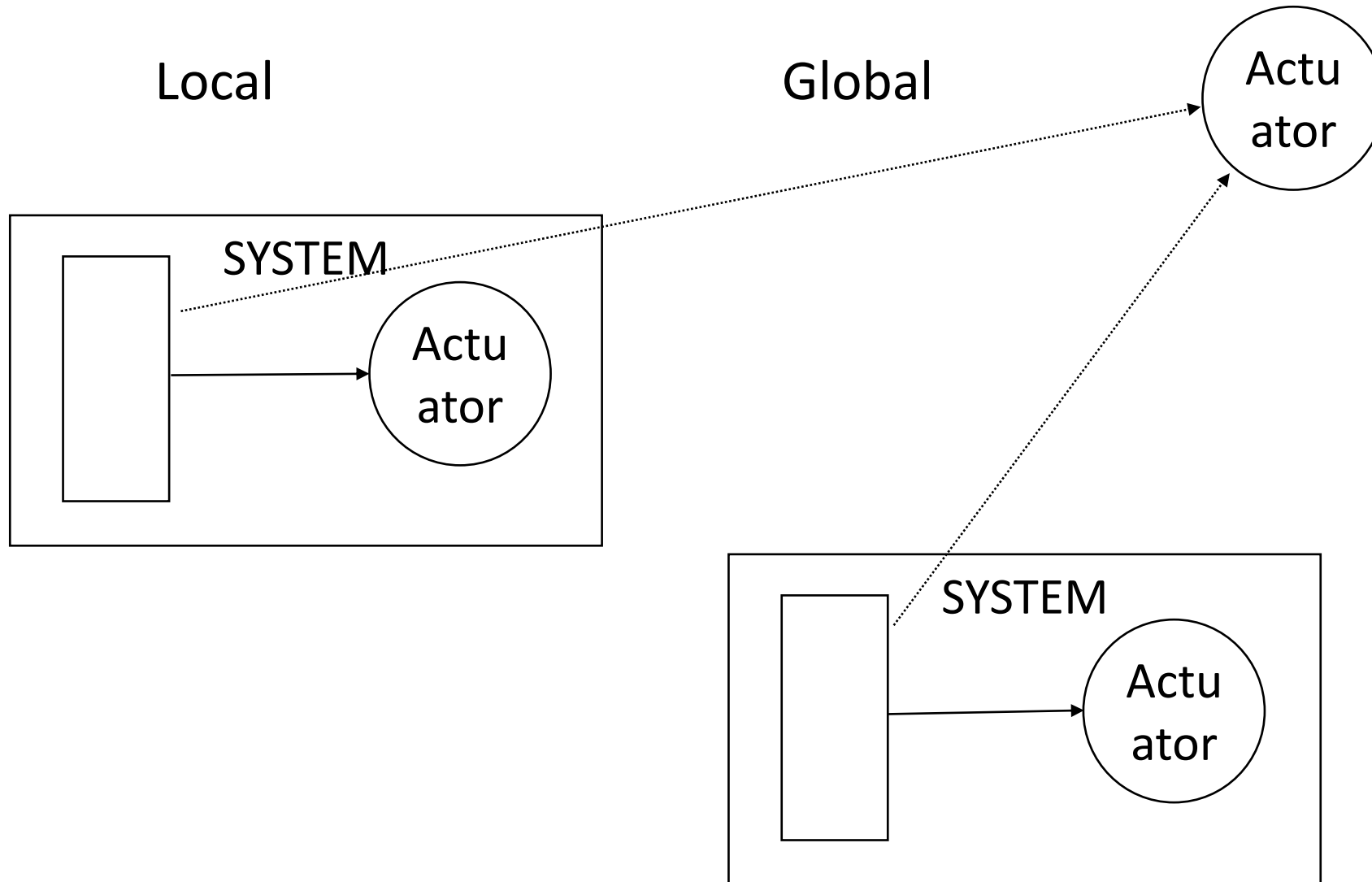
# Clasificare – Destinație Acțiune

Acțiune Interna

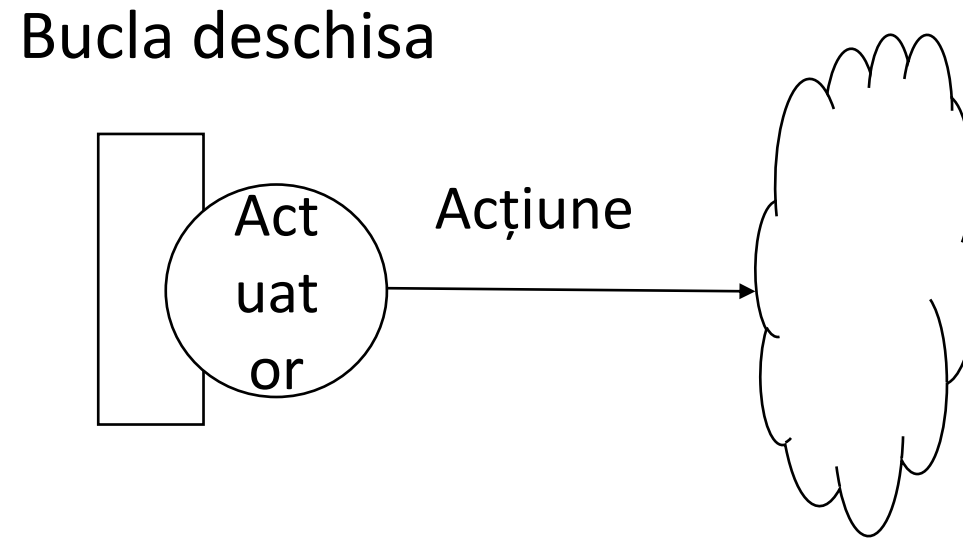
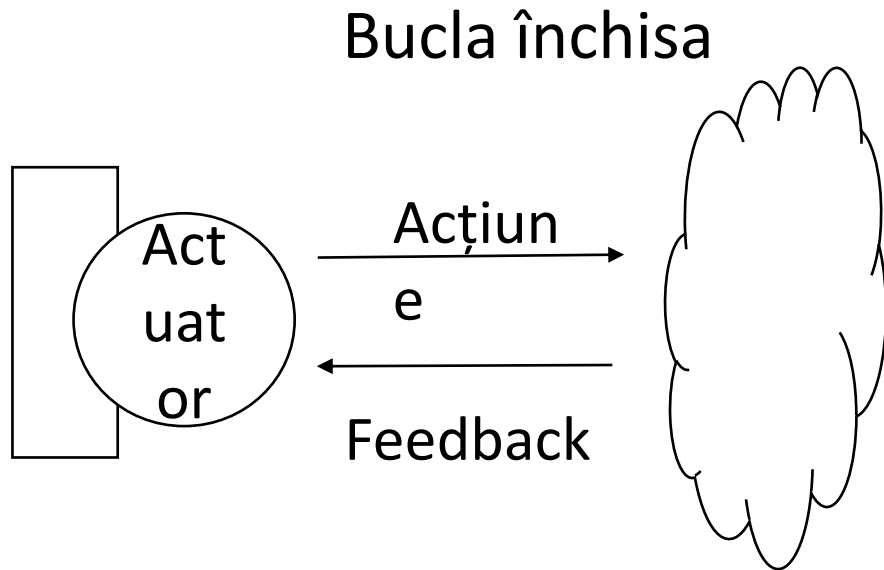
Acțiune Externa



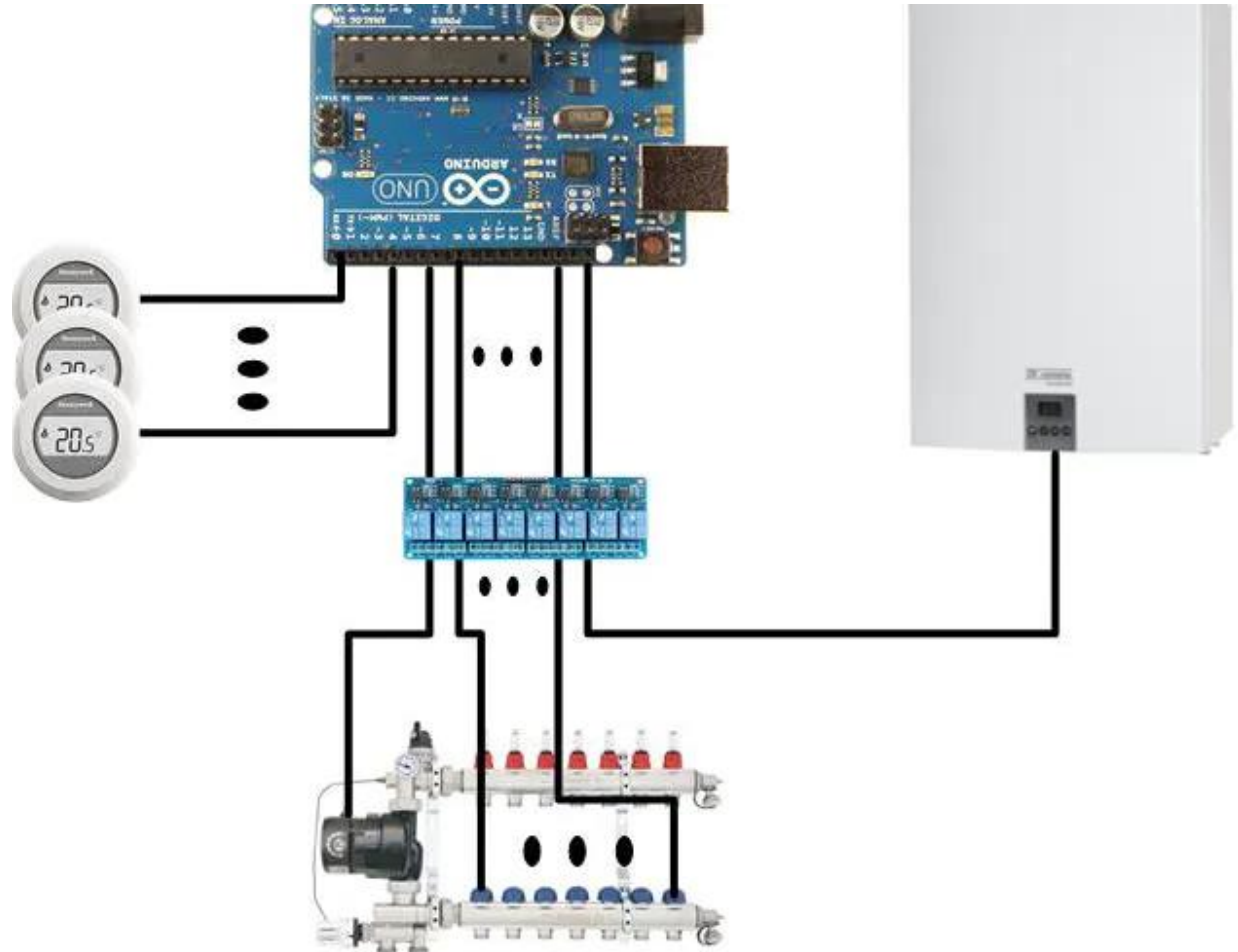
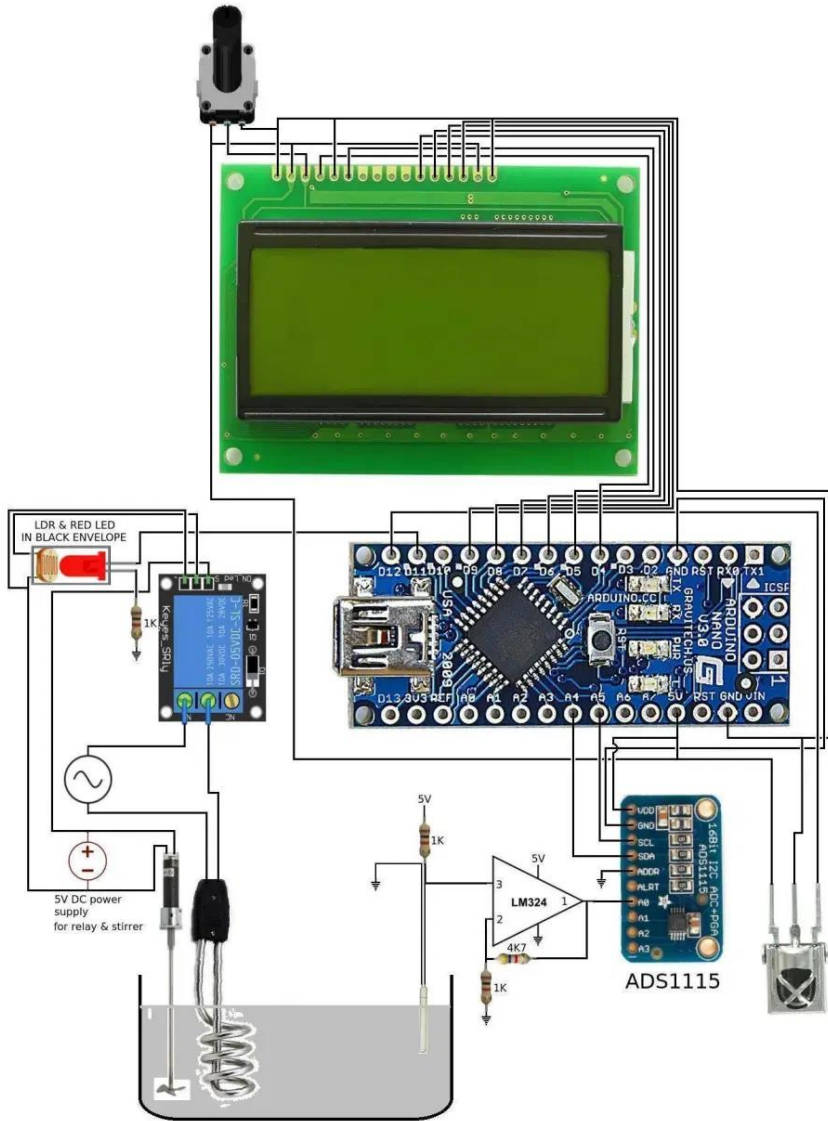
# Clasificare - Poziționare



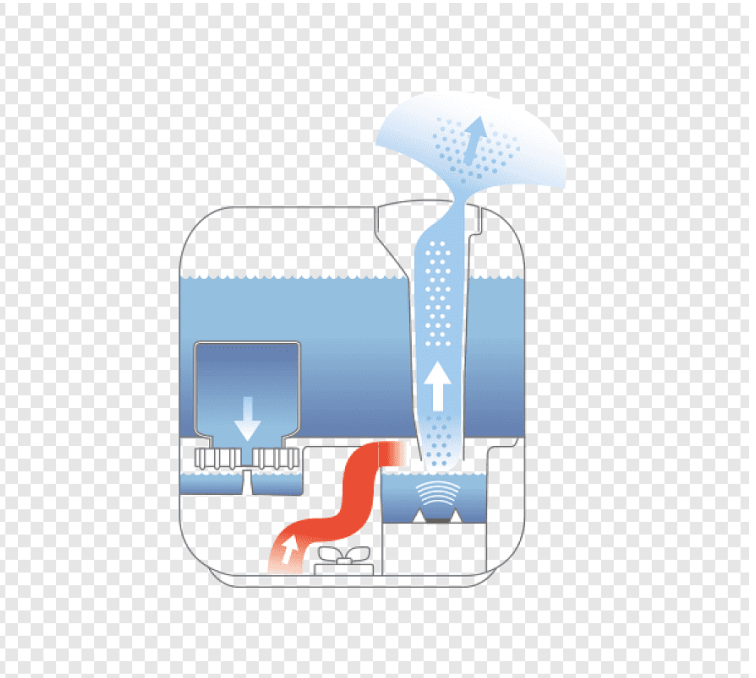
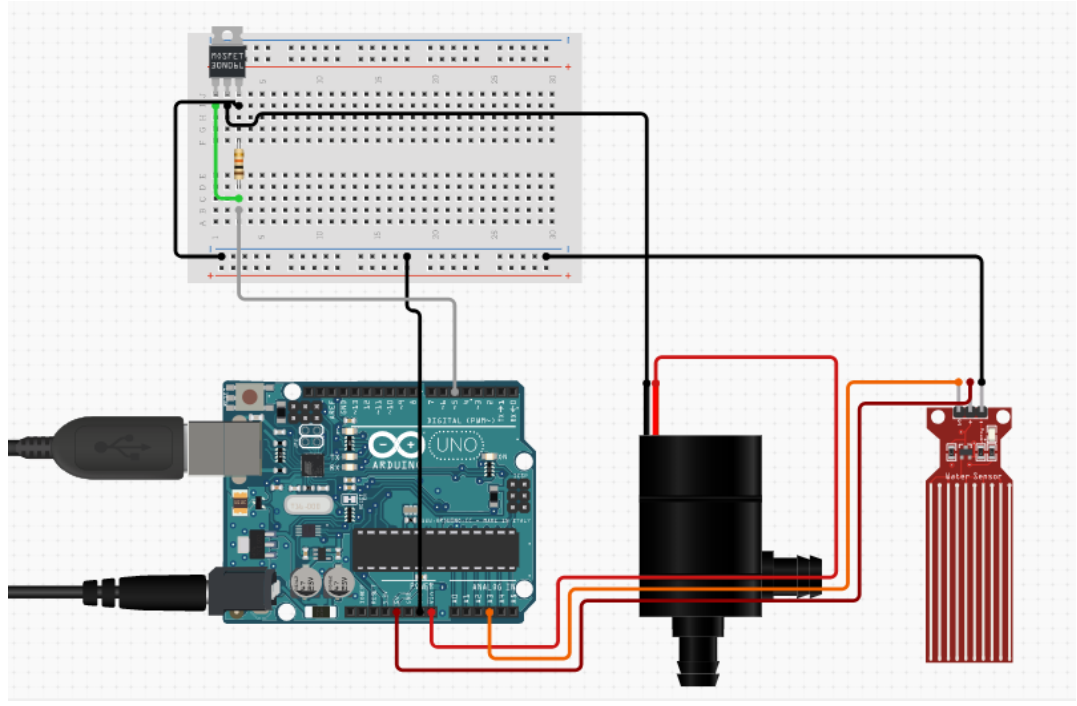
# Clasificare - Feedback



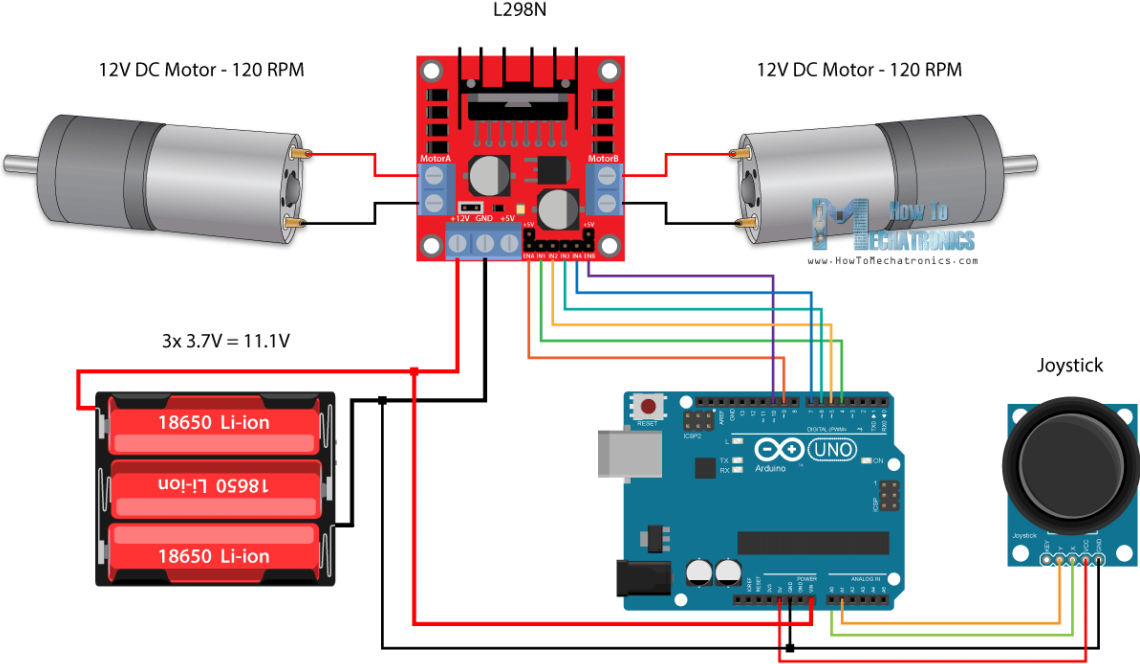
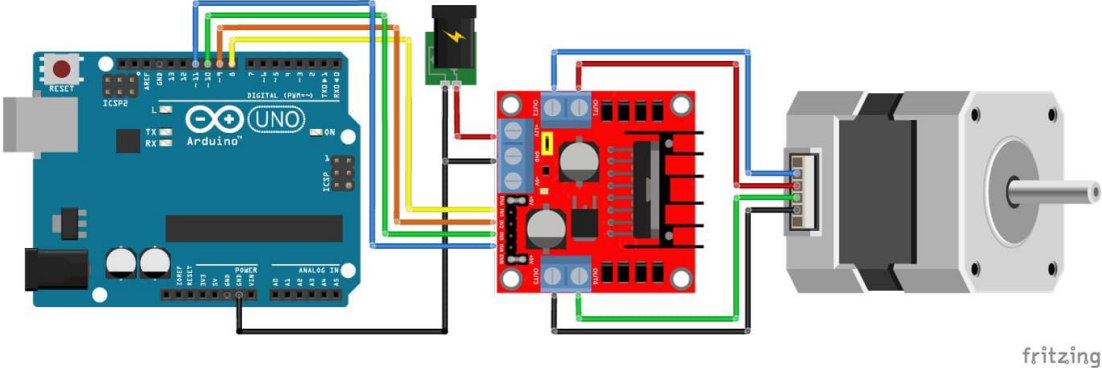
# Acțiune - Temperatura



# Acțiune - Umiditate



# Acțiune - Mișcare





# Acțiune - Presiune

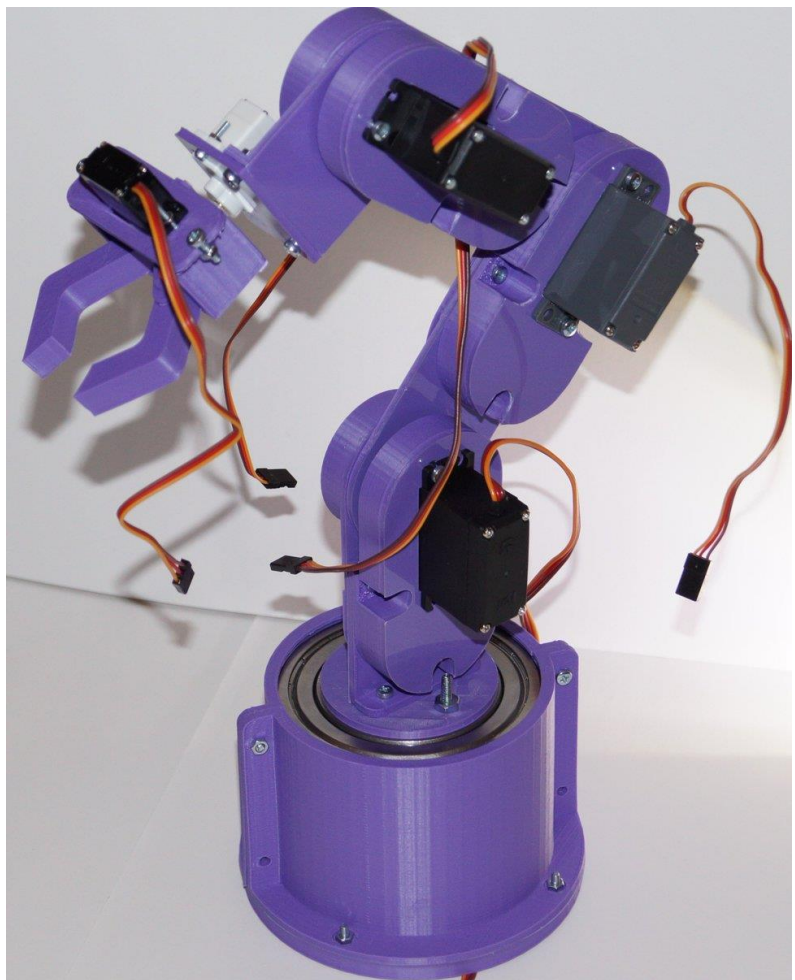
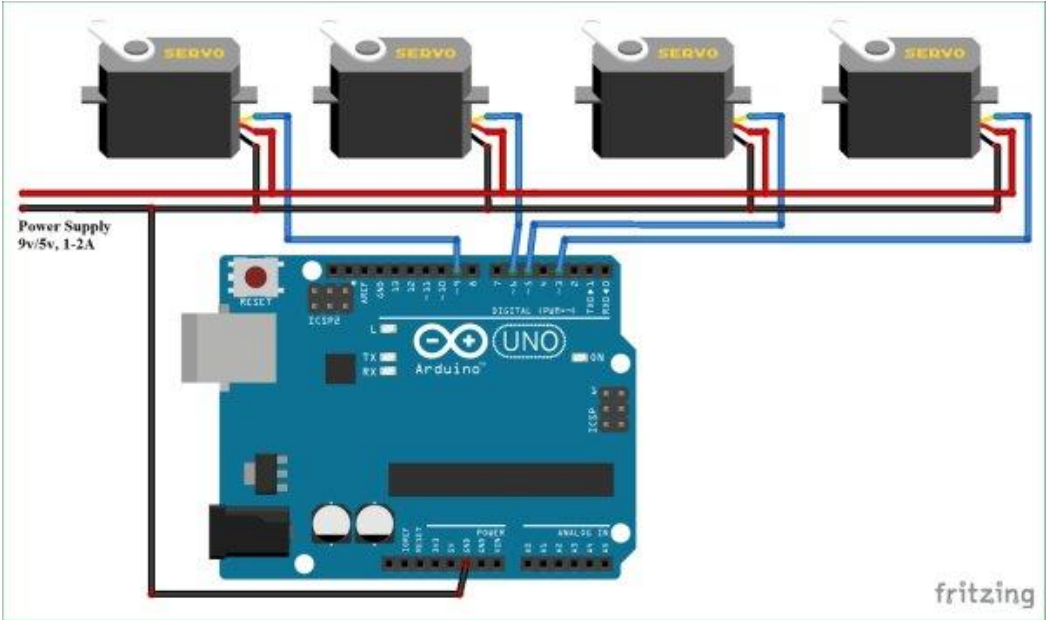
Supapa



Pompa



# Acțiune - Poziție



# Acțiune - Imagine

