

Ó_WEB ... index.html X ra1.html M ra1_backup.html U

index.html > html > head > link

FMB0_1665

```
<!DOCTYPE html>
<head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
    <link href="https://fonts.googleapis.com/css2?family=Space+Grotesk:wght@300..700&display=swap" rel="stylesheet">
    <link href="https://use.fontawesome.com/releases/v5.15.1/css/all.css" integrity="sha384-vp6vNlqFt5vVVNT3H8I6QD6JZGzJZJLW0dQJNQyDmM0PjwDgkZqV9" crossorigin="anonymous">
    <link rel="stylesheet" href="./styles/styles.css" />
<title>Digitalització Aplicada al Sector Productiu</title>
</head>
<body>
    <nav class="navbar">
        <a href="index.html" class="navbar__logo">FMB0_1665</a>
        <div class="navbar__bars"><i class="fas fa-bars"></i></div>
        <ul class="navbar__menu">
            <a href="./static/RAs/ra1.html" class="navbar__menu--links">RA1</a>
            <a href="./static/RAs/ra2/" class="navbar__menu--links">RA2</a>
            <a href="./static/RAs/ra3/" class="navbar__menu--links">RA3</a>
            <a href="#" class="navbar__menu--links navbar__menu--disabled">RA4</a>
            <a href="#" class="navbar__menu--links navbar__menu--disabled">RA5</a>
            <a href="#" class="navbar__menu--links navbar__menu--disabled">RA6</a>
        </ul>
    </nav>
    <div class="hero">
        <div class="hero__container">
            <div class="hero__container--content">
                <h1 class="hero__title">Digitalització Aplicada al Sector Productiu</h1>
                <h2 class="hero__subtitle">Institut Pompeu Fabra</h2>
                <p class="hero__text">Curs 2025/26</p>
            </div>
        </div>
    </div>

```

Digitalització Aplicada al Sistema Productiu

RA2 Classe 01

Tecnologies habilitadores digitals

*Quines són les tecnologies
habilitadores digitals?*

Big Data

Tecnologies habilitadores digitals

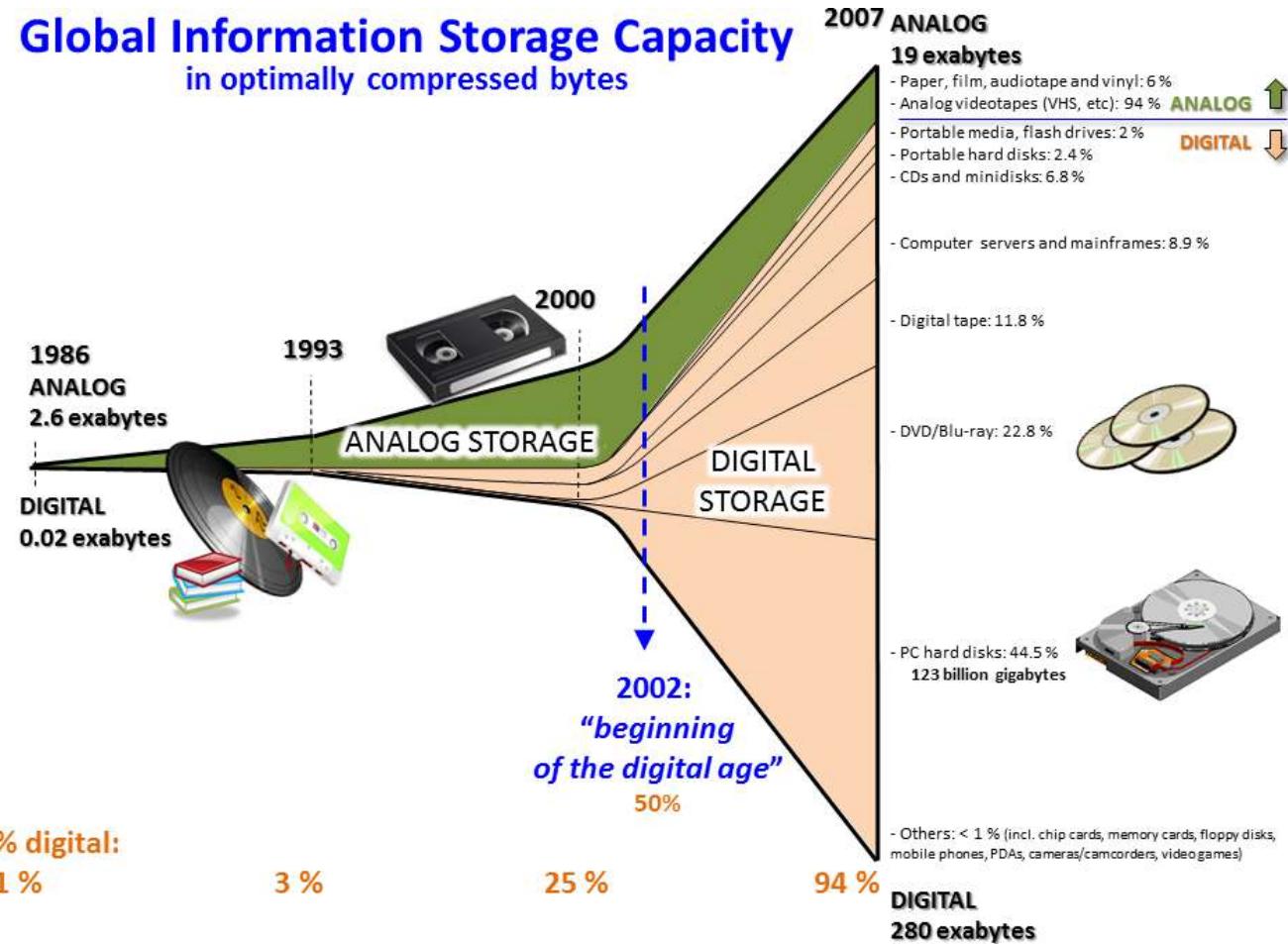
Què és?

Big data es refereix a conjunts de dades massives i complexos que els sistemes tradicionals de gestió de dades no poden manejar. Quan es recull, gestiona i analitza adequadament, el big data pot ajudar les organitzacions a descobrir nous coneixements i prendre millors decisions empresarials.

Big Data = Què?

Global Information Storage Capacity

in optimally compressed bytes



| sequence | pose_x0 | pose_y0 | pose_z0 | pose_x1 | pose_y1 | pose_z1 |
|---|--------------------|--------------------|---------------------|--------------------|---------------------------------------|----------|
| 0 | 0.4786812663078308 | 0.3842768669128418 | -0.7505114674568176 | 0.5003085732460022 | 0.3234480321407318 | -0.69699 |
| 0 | 0.4786461591720581 | 0.3835866153240204 | -0.7014445662498474 | 0.500199019908905 | 0.3228667676448822 | -0.66241 |
| 0 | 0.4786822199821472 | 0.383572906255722 | -0.6767651438713074 | 0.5002292990684509 | 0.3228687345981598 | -0.64081 |
| 0 | 0.4789914488792419 | 0.383722186088562 | -0.6718975901603699 | 0.5008608102798462 | 0.322869598865509 | -0.63334 |
| 0 | 0.4792330861091614 | 0.3840979337692261 | -0.6703112721443176 | 0.501365602016449 | 0.322926789522171 | -0.63204 |
| 0 | 0.4792363345623016 | 0.3842674493789673 | -0.6766451597213745 | 0.5013653039932251 | 0.3230652809143066 | -0.63535 |
| Dades Planes | 0.4792363345623016 | 0.3845421969890594 | -0.6919813752174377 | 0.5011822581291199 | 0.3232813477516174 | -0.64649 |
| 0 | 0.4791277647018432 | 0.3848921358585357 | -0.7320464253425598 | 0.5009594559669495 | 0.3235551714897156 | -0.68153 |
| 0 | 0.4790465533733368 | 0.3854216039180755 | -0.8580455183982849 | 0.5009003281593323 | 0.3247477114200592 | -0.80812 |
| informació senzilla i estructurada típicament recollida a través d'entrada manual, formes simples o entrada digital bàsica. Això inclou dades de full de càcul, respostes d'enquestes, registres d'inventari o qualsevol informació tabular que no requereix sensors especialitzats o mètodes de captura complexos. És "clar" en el sentit que és lleigible per l'ésser humà, directament interpretable, i no necessita preprocessament o transformació per ser entès | | | 304002404212952 | 0.5031996965408325 | 0.3247484266757965 | -0.82833 |
| | | | 741028904914856 | 0.5044596195220947 | 0.324753075838089 | -0.78006 |
| | | | 596223616600037 | 0.5045392513275146 | 0.3235906362533569 | -0.59746 |
| | | | 213592290878296 | 0.5041131973266602 | 0.322985827922821 | -0.55632 |
| | | | 370494365692139 | 0.5056651830673218 | 0.3234300315380096 | -0.57414 |
| | | | 537328505516052 | 0.5056473612785339 | 0.3244511783123016 | -0.71037 |
| | | | 78277921676636 | 0.504841148853302 | 0.3263794481754303 | -0.79622 |
| | | | | | ML Sequence Recognition - Jorge Muñoz | |
| 1 | 0.4826270241873160 | 0.3857427825464477 | 0.8147308826446523 | 0.5051400602165222 | 0.3257048428058624 | 0.76110 |

| class | accuracy | sequence | pose_x0 | pose_y0 | pose_z0 | pose_v0 | pose_x1 | pose_y1 | pose_z1 | pose_v1 | pose_x2 |
|------------|----------|----------|--------------------|--------------------|---------------------|---------|--------------------|--------------------|---------------------|---------|--------------------|
| movement_1 | 0 | 0 | 0.1803220212459564 | 0.3772212862968445 | -0.7749230265617371 | 1 | 0.1933352947235107 | 0.316392034292221 | -0.7842305898666382 | 1 | 0.2054056376218795 |
| movement_1 | 0 | 0 | 0.1770367324352264 | 0.3777706623077392 | -0.8963606357574463 | 1 | 0.190798208117485 | 0.3186620473861694 | -0.8979049921035767 | 1 | 0.2029017806053161 |
| movement_1 | 0 | 0 | 0.1749148517847061 | 0.3804147839546203 | -1.0181946754455566 | 1 | 0.1883237808942794 | 0.320747047662735 | -1.024236083030701 | 1 | 0.2010760158300399 |
| movement_1 | 0 | 0 | 0.1739172935485839 | 0.3802571296691894 | -0.9352670311927797 | 1 | 0.1887248456478119 | 0.3215108513832092 | -0.9347774386405944 | 1 | 0.2016506046056747 |
| movement_1 | 0 | 0 | 0.1781666278839111 | 0.3818413019180298 | -1.0447019338607788 | 1 | 0.1917511522769928 | 0.3221465051174164 | -1.0440722703933716 | 1 | 0.2044733017683029 |
| movement_1 | 0 | 0 | 0.178826630115509 | 0.3852170705795288 | -1.0886133909225464 | 1 | 0.1925909519195556 | 0.3231754302978515 | -1.0934511423110962 | 1 | 0.2057008445262909 |
| movement_1 | 0 | 0 | 0.1794343739748001 | 0.3878996968269348 | -1.0987372398376465 | 1 | 0.1916155964136123 | 0.3246895968914032 | -1.1018096208572388 | 1 | 0.2052008062601089 |
| movement_1 | 1 | 1 | 0.1865340620279312 | 0.383124977350235 | -0.6733952760696411 | 1 | 0.1957927793264389 | 0.3192880749702453 | -0.6784151792526245 | 1 | 0.2092948853969574 |
| movement_1 | 1 | 1 | 0.1865142732858657 | 0.3831679821014404 | -0.7832691669464111 | 1 | 0.1958589702844619 | 0.3192746639251709 | -0.7900877594947815 | 1 | 0.2094198167324066 |
| movement_1 | 1 | 1 | 0.1865954250097274 | 0.3849179446697235 | -0.7640161514282227 | 1 | 0.1963788121938705 | 0.3209910988807678 | -0.7708162665367126 | 1 | 0.2097910493612289 |
| movement_1 | 1 | 1 | 0.1861895024776458 | 0.3896296918392181 | -0.7471789121627808 | 1 | 0.196049764752388 | 0.3263798952102661 | -0.7668087482452393 | 1 | 0.2094113081693649 |
| movement_1 | 1 | 1 | 0.1874153465032577 | 0.389429360628128 | -0.6248605251312256 | 1 | 0.1977208405733108 | 0.3262328505516052 | -0.6262513995170593 | 1 | 0.2107677161693573 |
| movement_1 | 1 | 1 | 0.188778355717659 | 0.389298528432846 | -0.675320029258728 | 1 | 0.1998319029808044 | 0.3261939287185669 | -0.6346712708473206 | 1 | 0.2127199470996856 |
| movement_1 | 1 | 1 | 0.1898026168346405 | 0.3892417848110199 | -0.9501815438270568 | 1 | 0.2002031207084655 | 0.3261159360408783 | -0.9454461932182312 | 1 | 0.2133643627166748 |
| movement_1 | 1 | 1 | 0.1924772560596466 | 0.3892109096050262 | -0.9241863489151 | 1 | 0.2024820744991302 | 0.3260280191898346 | -0.9301032423973083 | 1 | 0.2152464538812637 |
| movement_1 | 1 | 1 | 0.1944437026977539 | 0.3889981508255005 | -0.9536430835723876 | 1 | 0.2050021737813949 | 0.3249086737632751 | -0.947998046875 | 1 | 0.2183884680271148 |
| movement_1 | 1 | 1 | 0.1974653601646423 | 0.388906329870224 | -0.6842021942138672 | 1 | 0.2086054665803909 | 0.3248607218265533 | -0.6945465803146362 | 1 | 0.2210733443498611 |
| movement_1 | 0 | 2 | 0.2095188349485397 | 0.3786954879760742 | -0.6873359680175781 | 1 | 0.2173645347356796 | 0.3180559873580932 | -0.6837792992591858 | 1 | 0.2298860847949981 |

Quins formats utilitzem?



Excel - Google Sheets - LibreOffice

.xlxs / .xls

| class | accuracy | sequence | pose_x0 | pose_y0 | pose_z0 | pose_v0 | pose_x1 | pose_y1 | pose_z1 | pose_v1 | pose_x2 |
|------------|----------|----------|--------------------|--------------------|---------------------|---------|--------------------|--------------------|---------------------|---------|--------------------|
| movement_1 | 0 | 0 | 0.1803220212459564 | 0.3772212862968445 | -0.7749230265617371 | 1 | 0.1933352947235107 | 0.316392034292221 | -0.7842305898666382 | 1 | 0.2054056376218795 |
| movement_1 | 0 | 0 | 0.1770367324352264 | 0.3777706623077392 | -0.8963606357574463 | 1 | 0.190798208117485 | 0.3186620473861694 | -0.8979049921035767 | 1 | 0.2029017806053161 |
| movement_1 | 0 | 0 | 0.1749148517847061 | 0.3804147839546203 | -1.0181946754455566 | 1 | 0.1883237808942794 | 0.320747047662735 | -1.024236083030701 | 1 | 0.2010760158300399 |
| movement_1 | 0 | 0 | 0.1739172935485839 | 0.3802571296691894 | -0.9352670319127797 | 1 | 0.1887248456478119 | 0.3215108513832092 | -0.9347774386405944 | 1 | 0.2016506046056747 |
| movement_1 | 0 | 0 | 0.1781666278839111 | 0.3818413019180298 | -1.0447019338607788 | 1 | 0.1917511522769928 | 0.3221465051174164 | -1.0440722703933716 | 1 | 0.2044733017683029 |
| movement_1 | 0 | 0 | 0.178826630115509 | 0.3852170705795288 | -1.0886133909225464 | 1 | 0.1925909519195556 | 0.3231754302978515 | -1.0934511423110962 | 1 | 0.2057008445262909 |
| movement_1 | 0 | 0 | 0.1794343739748001 | 0.3878996968269348 | -1.0987372398376465 | 1 | 0.1916155964136123 | 0.3246895968914032 | -1.1018096208572388 | 1 | 0.2052008062601089 |
| movement_1 | 1 | 1 | 0.1865340620279312 | 0.383124977350235 | -0.6733952760696411 | 1 | 0.1957927793264389 | 0.3192880749702453 | -0.6784151792526245 | 1 | 0.2092948853969574 |
| movement_1 | 1 | 1 | 0.1865142732858657 | 0.3831679821014404 | -0.7832691669464111 | 1 | 0.1958589702844619 | 0.3192746639251709 | -0.7900877594947815 | 1 | 0.2094198167324066 |
| movement_1 | 1 | 1 | 0.1865954250097274 | 0.3849179446697235 | -0.7640161514282227 | 1 | 0.1963788121938705 | 0.3209910988807678 | -0.7708162665367126 | 1 | 0.2097910493612289 |
| movement_1 | 1 | 1 | 0.1861895024776458 | 0.3896296918392181 | -0.7471789121627808 | 1 | 0.196049764752388 | 0.3263798952102661 | -0.7668087482452393 | 1 | 0.2094113081693649 |
| movement_1 | 1 | 1 | 0.1874153465032577 | 0.389429360628128 | -0.6248605251312256 | 1 | 0.1977208405733108 | 0.3262328505516052 | -0.6262513995170593 | 1 | 0.2107677161693573 |
| movement_1 | 1 | 1 | 0.188778355717659 | 0.389298528432846 | -0.675320029258728 | 1 | 0.1998319029808044 | 0.3261939287185669 | -0.6346712708473206 | 1 | 0.2127199470996856 |
| movement_1 | 1 | 1 | 0.1898026168346405 | 0.389241784110199 | -0.9501815438270568 | 1 | 0.2002031207084655 | 0.3261159360408783 | -0.9454461932182312 | 1 | 0.2133643627166748 |
| movement_1 | 1 | 1 | 0.1924772560596466 | 0.3892109096050262 | -0.9241863489151 | 1 | 0.2024820744991302 | 0.3260280191898346 | -0.9301032423973083 | 1 | 0.2152464538812637 |
| movement_1 | 1 | 1 | 0.1944437026977539 | 0.3889981508255005 | -0.9536430835723876 | 1 | 0.2050021737813949 | 0.3249086737632751 | -0.947998046875 | 1 | 0.2183884680271148 |
| movement_1 | 1 | 1 | 0.1974653601646423 | 0.388906329870224 | -0.6842021942138672 | 1 | 0.2085054665803909 | 0.3248607218265533 | -0.6945465803146362 | 1 | 0.2210733443498611 |
| movement_1 | 0 | 2 | 0.2095188349485397 | 0.3786954879760742 | -0.6873359680175781 | 1 | 0.2173645347356796 | 0.3180559873580932 | -0.6837792992591858 | 1 | 0.2298860847949981 |

.CSV

1 class,accuracy,sequence,pose_x0,pose_y0,pose_z0,pose_v0,pose_x1,pose_y1,pose_z1,pose_v1,pose_x2,pose_y2,pose_z2,pose_v2,pose_x3,pose_y3,pose_z3,pose_v3,pose_x4,pose_y4,pose_z4,pose_v4,pose
2 movement_1,0,0,0.1803220212459564,0.3772212862968445,-0.7749230265617371,1,0.1933352947235107,0.316392034292221,-0.7842305898666382,1,0.2054056376218795,0.3076972663402557,-0.784109652042:
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4 movement_1,0,0,0.1749148517847061,0.3804147839546203,-1.018194675455566,1,0.188323788942794,0.320747047662735,-1.024236083030701,1,0.2010760158300399,0.3126794695854187,-1.0240681171417:
5 movement_1,0,0,0.173917293585839,0.3802571296691894,-0.9352670311927797,1,0.1887248456478119,0.3215108513832092,-0.9347774386405944,1,0.2016506046056747,0.3143299221992492,-0.934646904468
6 movement_1,0,0,0.1781666278839111,0.3818413019180298,-1.0447019338607788,1,0.1917511522769928,0.3221465051174164,-1.0440722703933716,1,0.2044733017683029,0.3149998486042022,-1.043926000595:
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11 movement_1,1,1,0.1865954250097274,0.3849179446697235,-0.7640161514282227,1,0.1963788121938705,0.3209910988807678,-0.7708162665367126,1,0.2097910493612289,0.308388739824295,-0.7706326246261:
12 movement_1,1,1,0.1861895024776458,0.3896296918392181,-0.7471789121627808,1,0.196049764752388,0.3263798952102661,-0.7668087482452393,1,0.2094113081693649,0.31419837474823,-0.766561388969421:
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15 movement_1,1,1,0.1898826168346405,0.3892417848110199,-0.9501815438270568,1,0.2002031207084655,0.3261159360408783,-0.9454461932182312,1,0.2133643627166748,0.3140364289283752,-0.945511758327:
16 movement_1,1,1,0.1924772560596466,0.3892109096050262,-0.9241863489151,1,0.2024820744991302,0.3260280191898346,-0.9301032423973083,1,0.2152464538812637,0.313969075679779,-0.930029332637786:
17 movement_1,1,1,0.1944437026977539,0.3889981508255005,-0.9536430835723876,1,0.2050021737813949,0.3249086737632751,-0.947998046875,1,0.2183884680271148,0.312644898891449,-0.947896242147236:
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22 movement_1,0,2,0.2089976370334625,0.3854114711284637,-0.8196317553520203,1,0.2168183624744415,0.3225965797901153,-0.8232244849205017,1,0.2293067276477813,0.3107688556747436,-0.823119461538:
23 movement_1,0,2,0.2088343352079391,0.3854006230831146,-0.9605669379234314,1,0.2166830897331237,0.3222292959690094,-0.9425946474075316,1,0.229259505867958,0.3104495704174042,-0.9425219893455:
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27 movement_1,0,2,0.2041381299495697,0.3842227458953857,-1.120139479637146,1,0.2141563892364502,0.3197132349014282,-1.1180980205535889,1,0.2279553264379501,0.3074757754802704,-1.1178066730495:
28 movement_1,0,2,0.2038765251636505,0.3837446570396423,-0.9754870533943176,1,0.2141506820917129,0.3180712759494781,-0.9797840714454652,1,0.2282207608222961,0.3053696155548095,-0.979534685611:
29 movement_1,0,2,0.2038882225751876,0.3846223950386047,-1.075057864189148,1,0.2139014452695846,0.3184595108032226,-1.0743144750595093,1,0.2282096743583679,0.3053924739360809,-1.0740368366241:
30 movement_1,0,2,0.2038650810718536,0.3852664828300476,-1.0427554845809937,1,0.2138697654008865,0.3185938596725464,-1.039319396018982,1,0.2282862365245819,0.3054340481758117,-1.039028882980:

.xml

```
<?xml version="1.0" encoding="UTF-8"?>
- <EmployeeData>
  - <employee id="34594">
    <firstName>Heather</firstName>
    <lastName>Banks</lastName>
    <hireDate>1/19/1998</hireDate>
    <deptCode>BB001</deptCode>
    <salary>72000</salary>
  </employee>
  - <employee id="34593">
    <firstName>Tina</firstName>
    <lastName>Young</lastName>
    <hireDate>4/1/2010</hireDate>
    <deptCode>BB001</deptCode>
    <salary>65000</salary>
  </employee>
</EmployeeData>
```

.json

```
1 {
2     "count": 7,
3     "items": ["socks", "pants", "shirts", "hats"],
4     "manufacturer": {
5         "name": "Molly's Seamstress Shop",
6         "id": 39233,
7         "location": {
8             "address": "123 Pickleton Dr.",
9             "city": "Tucson",
10            "state": "AZ",
11            "zip": 85705
12        }
13    },
14    "total_price": "$393.23",
15    "purchase_date": "2022-05-30",
16    "country": "USA"
17 }
```

.db

```
-- tables
-- Table: city
CREATE TABLE city (
    id int NOT NULL IDENTITY(1, 1),
    city_name char(128) NOT NULL,
    lat decimal(9,6) NOT NULL,
    long decimal(9,6) NOT NULL,
    country_id int NOT NULL,
    CONSTRAINT city_pk PRIMARY KEY (id)
);

-- Table: country
CREATE TABLE country (
    id int NOT NULL IDENTITY(1, 1),
    country_name char(128) NOT NULL,
    country_name_eng char(128) NOT NULL,
    country_code char(8) NOT NULL,
    CONSTRAINT country_ak_1 UNIQUE (country_name),
    CONSTRAINT country_ak_2 UNIQUE (country_name_eng),
    CONSTRAINT country_ak_3 UNIQUE (country_code),
    CONSTRAINT country_pk PRIMARY KEY (id)
);

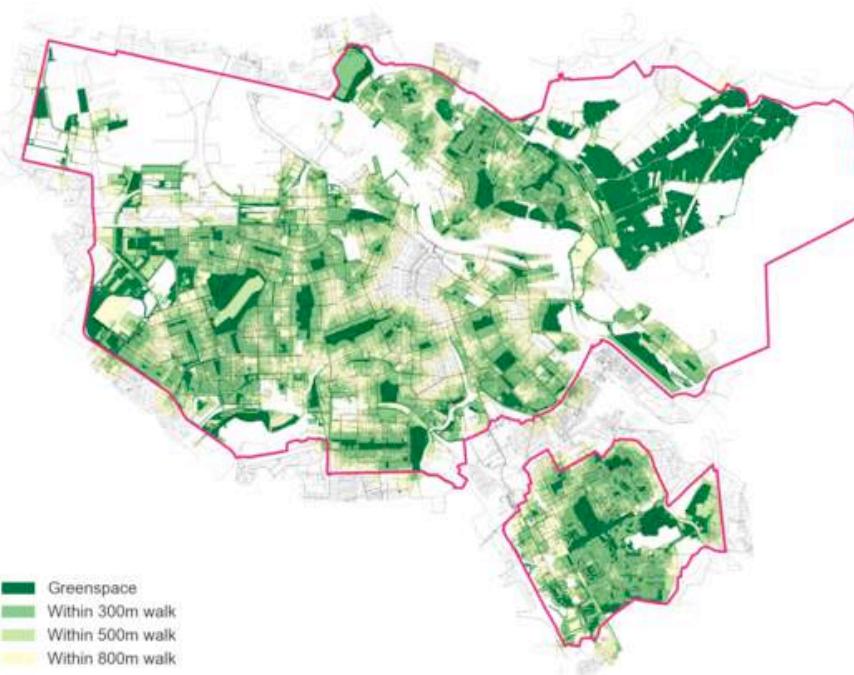
-- foreign keys
-- Reference: city_country (table: city)
ALTER TABLE city ADD CONSTRAINT city_country
    FOREIGN KEY (country_id)
    REFERENCES country (id);

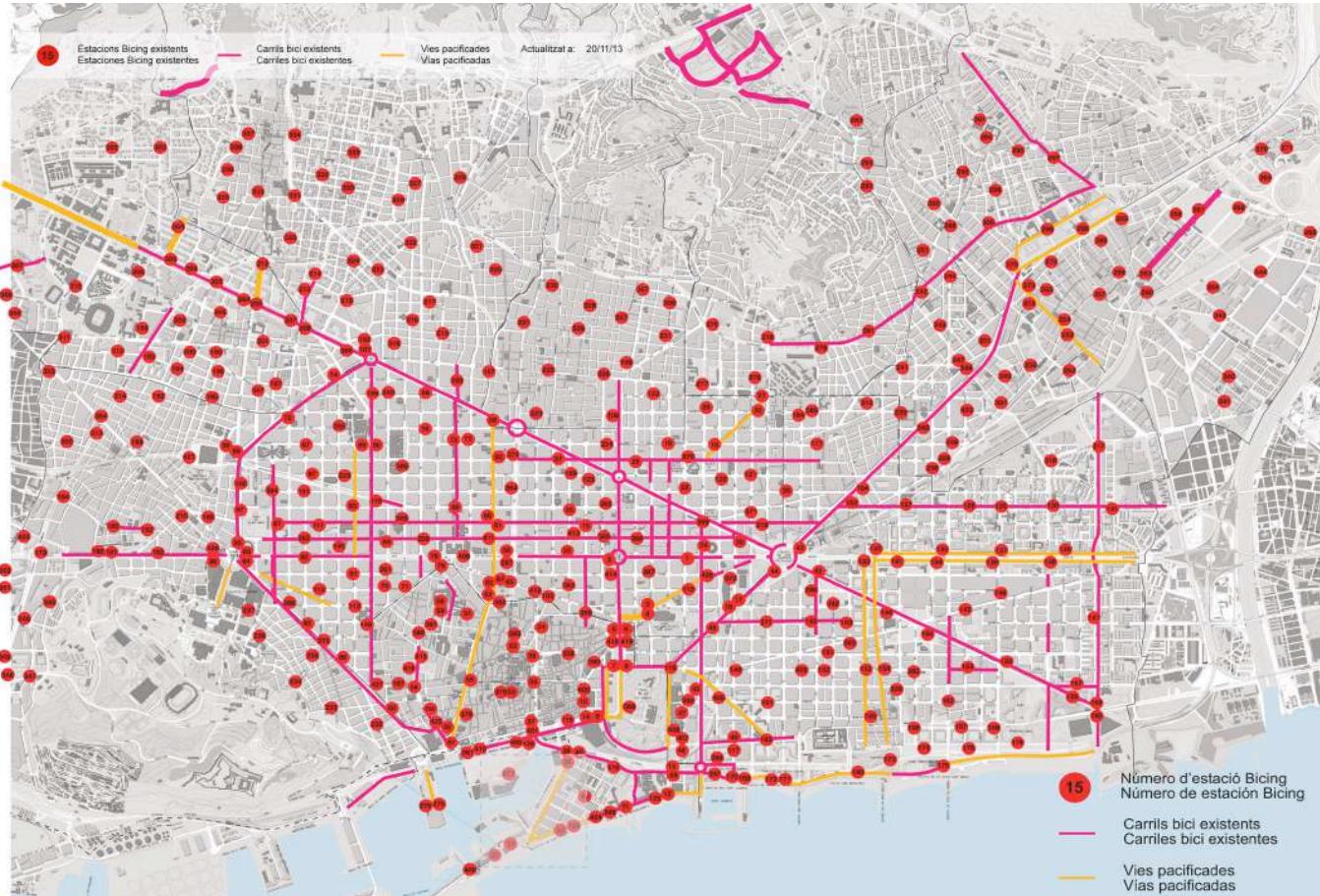
-- End of file.
```

Dades Geoespacials

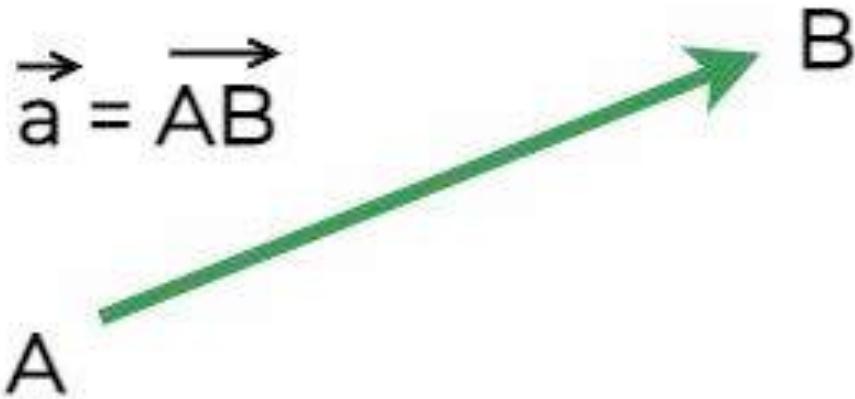
Les dades geoespacials són dades basades en el temps que estan relacionades amb una ubicació específica a la superfície de la Terra. Pot proporcionar informació sobre les relacions entre variables i revelar patrons i tendències.

Greenspaces and pedestrian accessibility

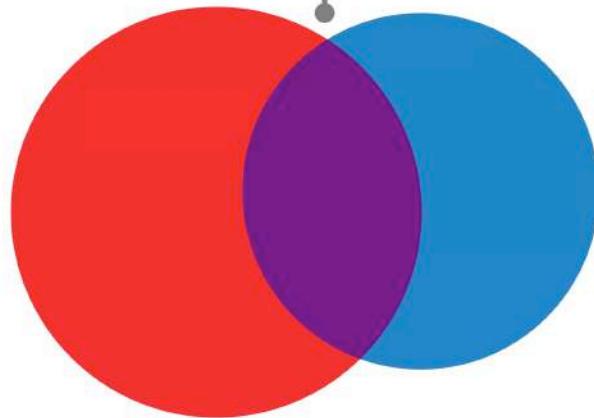




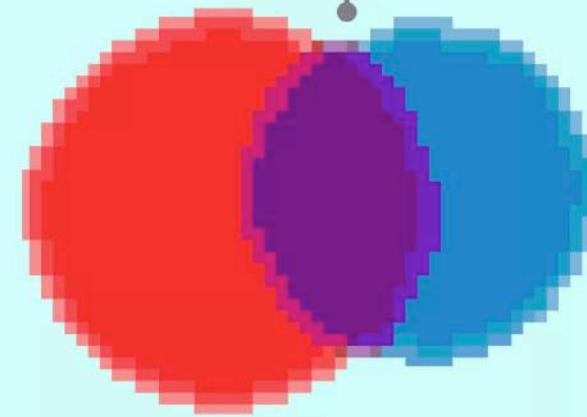
Quins formats utilitzem?



Vector



Raster



AI

EPS

CGM

PDF

SVG

CDR

BMP

TIFF

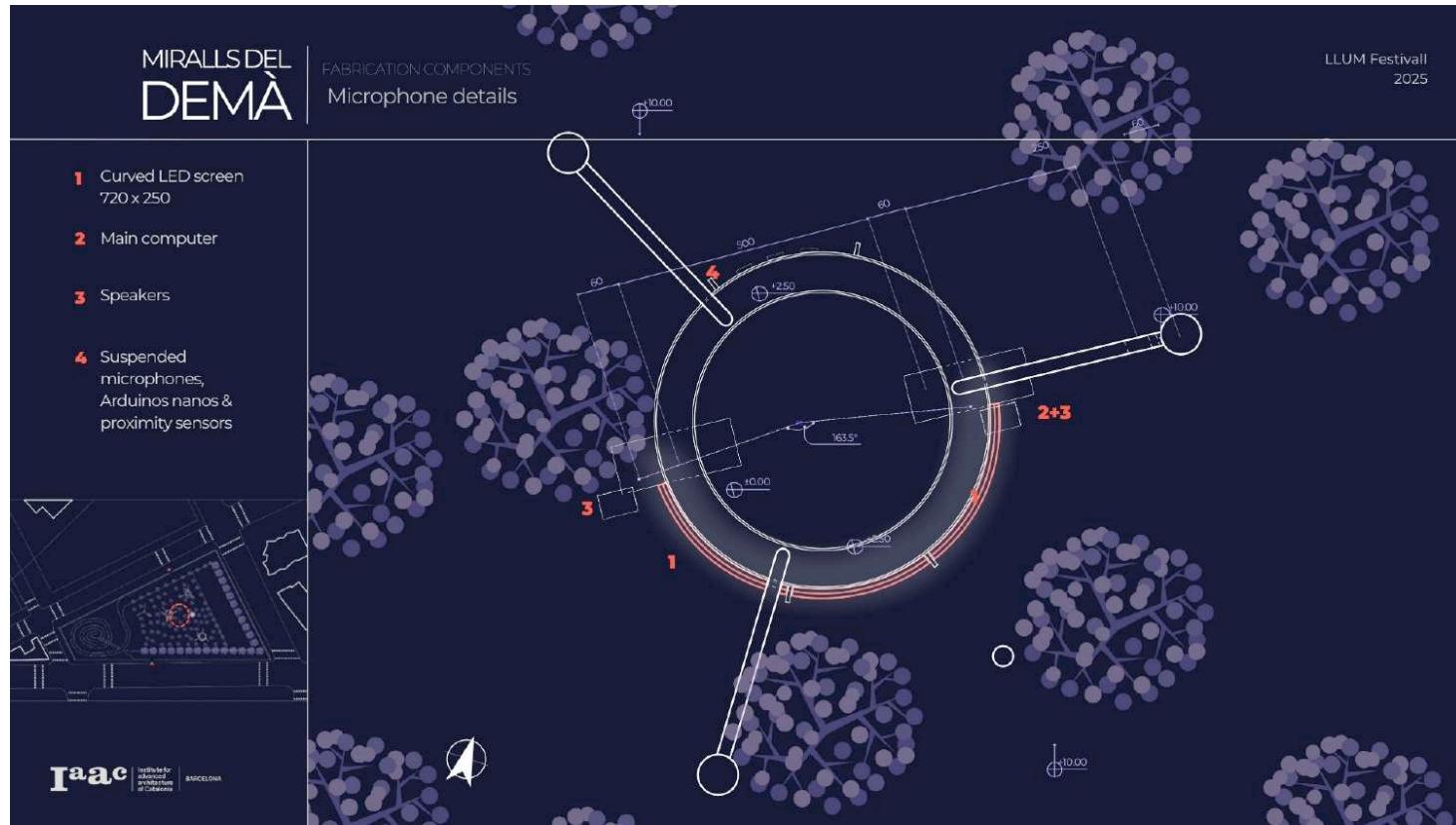
PCX

GIF

PNG

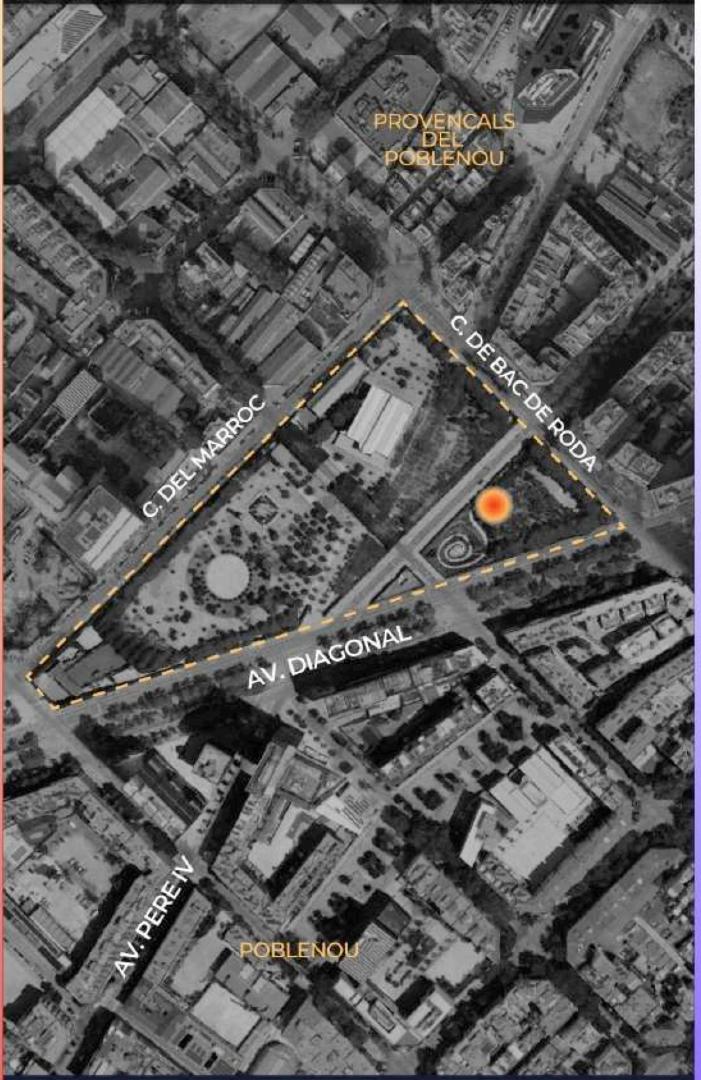
JPEG

.svg / .eps



Miralls del demà - IaaC LLUM25

CENTRAL PARK POBLENOU



ELS NIUS I POUS DEL CEL



1 Main entrance

2 Secondary entrance

Installation location



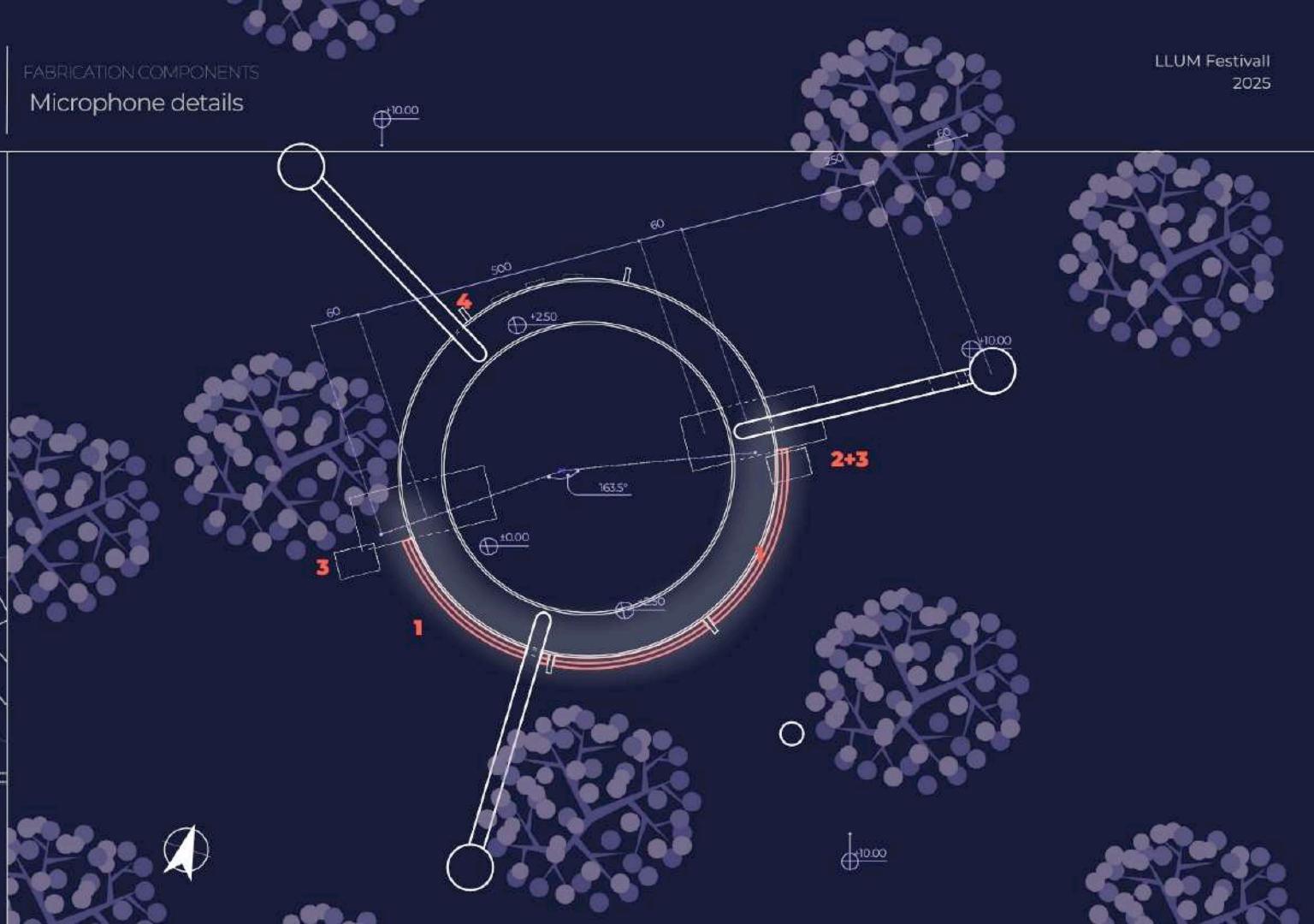
MIRALLS DEL
DEMÀ

FABRICATION COMPONENTS

Microphone details

LLUM Festivall
2025

- 1 Curved LED screen
720 x 250
 - 2 Main computer
 - 3 Speakers
 - 4 Suspended
microphones,
Arduinos nanos &
proximity sensors



.kml / .kmz



.geojson

```
1 {
2     "count": 7,
3     "items": ["socks", "pants", "shirts", "hats"],
4     "manufacturer": {
5         "name": "Molly's Seamstress Shop",
6         "id": 39233,
7         "location": {
8             "address": "123 Pickleton Dr.",
9             "city": "Tucson",
10            "state": "AZ",
11            "zip": 85705
12        }
13    },
14    "total_price": "$393.23",
15    "purchase_date": "2022-05-30",
16    "country": "USA"
17 }
```

.gpx

```
<trk>
  <name>California Riding and Hiking Trail</name>
  <trkseg>
    <trkpt lat="34.075173" lon="-116.388043" />
    <trkpt lat="34.075138" lon="-116.387911" />
    <trkpt lat="34.07504" lon="-116.38743" />
    <trkpt lat="34.07502" lon="-116.3872" />
    <trkpt lat="34.07462" lon="-116.38687" />
    <trkpt lat="34.0744" lon="-116.38678" />
    <trkpt lat="34.07403" lon="-116.38679" />
    <trkpt lat="34.07374" lon="-116.38673" />
    <trkpt lat="34.0733" lon="-116.38657" />
    <trkpt lat="34.0733" lon="-116.38657" />
    <trkpt lat="34.0733" lon="-116.38657" />
    <trkpt lat="34.07318" lon="-116.38644" />
    <trkpt lat="34.07312" lon="-116.38632" />
```

.CSV

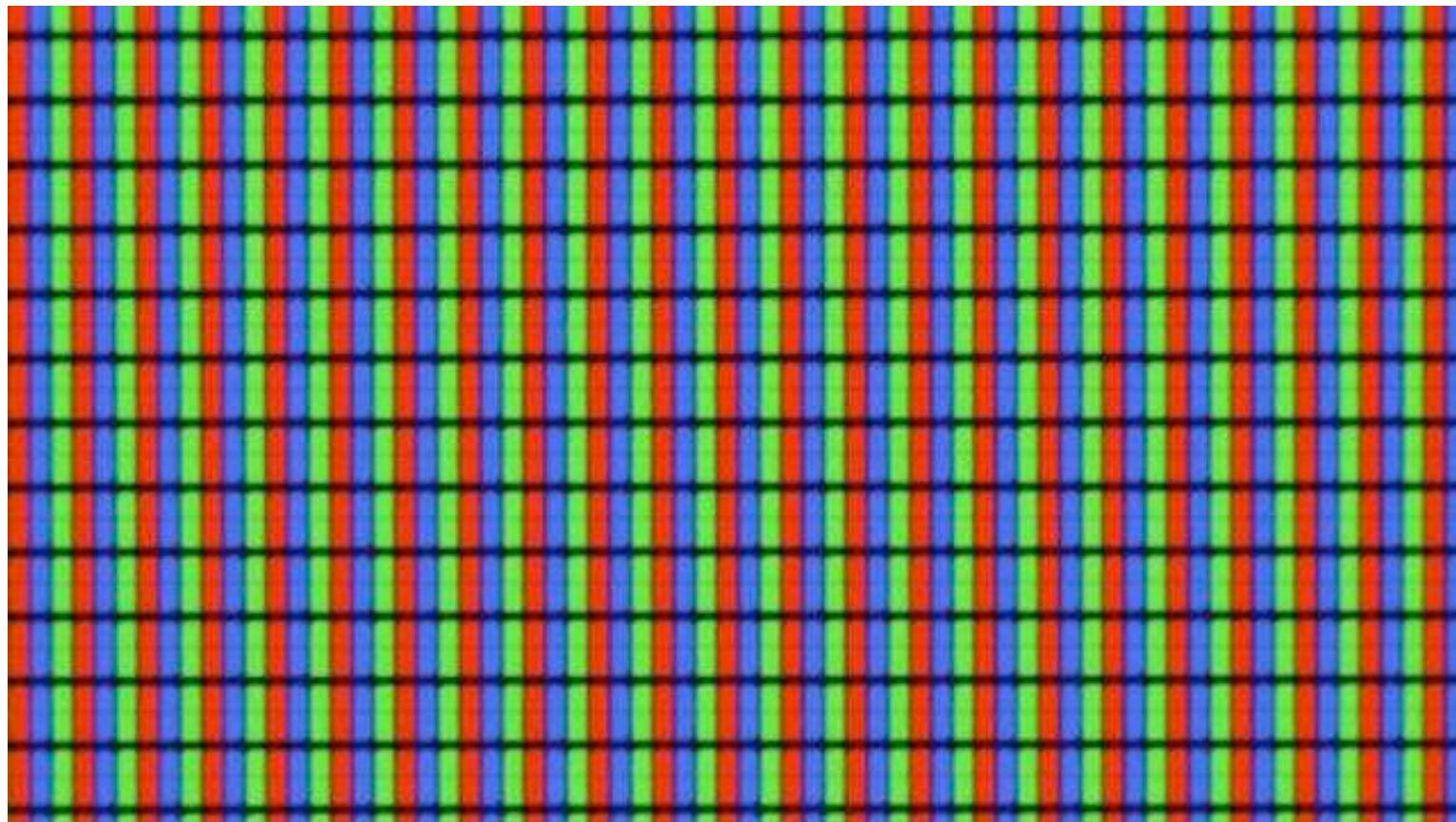
1 class,accuracy,sequence,pose_x0,pose_y0,pose_z0,pose_v0,pose_x1,pose_y1,pose_z1,pose_v1,pose_x2,pose_y2,pose_z2,pose_v2,pose_x3,pose_y3,pose_z3,pose_v3,pose_x4,pose_y4,pose_z4,pose_v4,pose
2 movement_1,0,0,0.1803220212459564,0.3772212862968445,-0.7749230265617371,1,0.1933352947235107,0.316392034292221,-0.7842305898666382,1,0.2054056376218795,0.3076972663402557,-0.784109652042:
3 movement_1,0,0,0.1770367324352264,0.3777706623077392,-0.8963606357574463,1,0.190798208117485,0.3186620473861694,-0.8979049921035767,1,0.2029017806053161,0.3108167358292206,-0.8977881669998
4 movement_1,0,0,0.1749148517847061,0.3804147839546203,-1.018194675455566,1,0.188323788942794,0.320747047662735,-1.024236083030701,1,0.2010760158300399,0.3126794695854187,-1.0240681171417:
5 movement_1,0,0,0.173917293585839,0.3802571296691894,-0.9352670311927797,1,0.1887248456478119,0.3215108513832092,-0.9347774386405944,1,0.2016506046056747,0.3143299221992492,-0.934646904468
6 movement_1,0,0,0.1781666278839111,0.3818413019180298,-1.0447019338607788,1,0.1917511522769928,0.3221465051174164,-1.0440722703933716,1,0.2044733017683029,0.3149998486042022,-1.043926000595:
7 movement_1,0,0,0.178826630115509,0.3852170705795288,-1.0886133909225464,1,0.1925909519195556,0.3231754302978515,-1.0934511423110962,1,0.2057008445262909,0.3153139352798462,-1.093339443206:
8 movement_1,0,0,0.1794343739748001,0.3878996968269348,-1.0987372398376465,1,0.1916155964136123,0.3246895968914032,-1.018096208572388,1,0.2052008062601089,0.3157415986061096,-1.01652145385:
9 movement_1,1,1,0.1865340620279312,0.383124977350235,-0.6733952760696411,1,0.1957927793264389,0.3192880749702453,-0.6784151792526245,1,0.2092948853969574,0.305978924036026,-0.67830218924148:
10 movement_1,1,1,0.1865142732858657,0.3831679821014404,-0.7832691669464111,1,0.1958589702844619,0.3192746639251709,-0.7900877594947815,1,0.2094198167324066,0.309969178676052,-0.789916455745:
11 movement_1,1,1,0.1865954250097274,0.3849179446697235,-0.7640161514282227,1,0.1963788121938705,0.3209910988807678,-0.7708162665367126,1,0.2097910493612289,0.308388739824295,-0.7706326246261:
12 movement_1,1,1,0.1861895024776458,0.3896296918392181,-0.7471789121627808,1,0.196049764752388,0.3263798952102661,-0.7668087482452393,1,0.2094113081693649,0.31419837474823,-0.766561388969421:
13 movement_1,1,1,0.1874153465032577,0.389429360628128,-0.6248605251312256,1,0.1977208405733108,0.3262328505516052,-0.6262513995170593,1,0.2107677161693573,0.3141505718231201,-0.6261995434761:
14 movement_1,1,1,0.188778355717659,0.389298528432846,-0.675320029258728,1,0.1998319029808044,0.3261939287185669,-0.6346712708473206,1,0.2127199470996856,0.3141123056411743,-0.636503636837005:
15 movement_1,1,1,0.1898826168346405,0.3892417848110199,-0.9501815438270568,1,0.2002031207084655,0.3261159360408783,-0.9454461932182312,1,0.2133643627166748,0.3140364289283752,-0.945511758327:
16 movement_1,1,1,0.1924772560596466,0.3892109096050262,-0.9241863489151,1,0.2024820744991302,0.3260280191898346,-0.9301032423973083,1,0.2152464538812637,0.313969075679779,-0.930029332637786:
17 movement_1,1,1,0.1944437026977539,0.3889981508255005,-0.9536430835723876,1,0.2050021737813949,0.3249086737632751,-0.947998046875,1,0.2183884680271148,0.312644898891449,-0.947896242147236:
18 movement_1,1,1,0.1974653601646423,0.388906329870224,-0.6842021942138672,1,0.2085054665803909,0.3248607218265533,-0.6945465803143632,1,0.2210733443498611,0.3131102919578552,-0.6945460438728:
19 movement_1,0,2,0.2095188349485397,0.3786954879760742,-0.6873359680175781,1,0.2173645374357696,0.3180559873580932,-0.6837792992591858,1,0.2298860847949981,0.3062267899513244,-0.683763682842:
20 movement_1,0,2,0.2092870026826858,0.3792642652988434,-0.6172273306884766,1,0.2170848548412323,0.3191232885227966,-0.620808482170185,1,0.2296175509691238,0.3072201907634735,-0.6207941174501:
21 movement_1,0,2,0.2091212421655655,0.3839102387428283,-0.6766626238822937,1,0.2170674204826355,0.3215822577476501,-0.7003638744354248,1,0.229578286409378,0.3096665740013122,-0.7000735402107:
22 movement_1,0,2,0.2089976370334625,0.3854114711284637,-0.8196317553520203,1,0.2168183624744415,0.3225965797901153,-0.8232244849205017,1,0.2293067276477813,0.3107688556747436,-0.823119461538:
23 movement_1,0,2,0.2088343352079391,0.3854006230831146,-0.9605669379234314,1,0.2166830897331237,0.3222292959690094,-0.9425946474075316,1,0.229259505867958,0.3104495704174042,-0.9425219893455:
24 movement_1,0,2,0.2073291689157486,0.3863823413848877,-0.9060689806938172,1,0.2154096662998199,0.3234944641590118,-0.8835296034812927,1,0.2281506210565567,0.3123330175876617,-0.883504450321:
25 movement_1,0,2,0.2066156715154647,0.3851670622825622,-0.7602522969245911,1,0.2153936773538589,0.3218236863613128,-0.7402054071426392,1,0.2281939536333084,0.3106279373168945,-0.74017357826:
26 movement_1,0,2,0.205452024936676,0.3849664330482483,-0.6741822361946106,1,0.2146354168653488,0.3218719661235809,-0.6669633388519287,1,0.2279243767261505,0.3107419013977051,-0.6668934226036:
27 movement_1,0,2,0.2041381299495697,0.3842227458953857,-1.120139479637146,1,0.2141563892364502,0.3197132349014282,-1.1180980205535889,1,0.2279553264379501,0.3074757754802704,-1.1178066730495:
28 movement_1,0,2,0.2038765251636505,0.3837446570396423,-0.9754870533943176,1,0.2141506820917129,0.3180712759494781,-0.9797840714454652,1,0.2282207608222961,0.3053696155548095,-0.979534685611:
29 movement_1,0,2,0.2038882225751876,0.3846223950386047,-1.075057864189148,1,0.2139014452695846,0.3184595108032226,-1.0743144750595093,1,0.2282096743583679,0.3053924739360809,-1.0740368366241:
30 movement_1,0,2,0.2038650810718536,0.3852664828300476,-1.0427554845809937,1,0.2138697654008865,0.3185938596725464,-1.039319396018982,1,0.2282862365245819,0.3054340481758117,-1.039028882980:

.xlxs / .xls

| class | accuracy | sequence | pose_x0 | pose_y0 | pose_z0 | pose_v0 | pose_x1 | pose_y1 | pose_z1 | pose_v1 | pose_x2 |
|------------|----------|----------|--------------------|--------------------|---------------------|---------|--------------------|--------------------|---------------------|---------|--------------------|
| movement_1 | 0 | 0 | 0.1803220212459564 | 0.3772212862968445 | -0.7749230265617371 | 1 | 0.1933352947235107 | 0.316392034292221 | -0.7842305898666382 | 1 | 0.2054056376218795 |
| movement_1 | 0 | 0 | 0.1770367324352264 | 0.3777706623077392 | -0.8963606357574463 | 1 | 0.190798208117485 | 0.3186620473861694 | -0.8979049921035767 | 1 | 0.2029017806053161 |
| movement_1 | 0 | 0 | 0.1749148517847061 | 0.3804147839546203 | -1.0181946754455566 | 1 | 0.1883237808942794 | 0.320747047662735 | -1.024236083030701 | 1 | 0.2010760158300399 |
| movement_1 | 0 | 0 | 0.1739172935485839 | 0.3802571296691894 | -0.9352670319127797 | 1 | 0.1887248456478119 | 0.3215108513832092 | -0.9347774386405944 | 1 | 0.2016506046056747 |
| movement_1 | 0 | 0 | 0.1781666278839111 | 0.3818413019180298 | -1.0447019338607788 | 1 | 0.1917511522769928 | 0.3221465051174164 | -1.0440722703933716 | 1 | 0.2044733017683029 |
| movement_1 | 0 | 0 | 0.178826630115509 | 0.3852170705795288 | -1.0886133909225464 | 1 | 0.1925909519195556 | 0.3231754302978515 | -1.0934511423110962 | 1 | 0.2057008445262909 |
| movement_1 | 0 | 0 | 0.1794343739748001 | 0.3878996968269348 | -1.0987372398376465 | 1 | 0.1916155964136123 | 0.3246895968914032 | -1.1018096208572388 | 1 | 0.2052008062601089 |
| movement_1 | 1 | 1 | 0.1865340620279312 | 0.383124977350235 | -0.6733952760696411 | 1 | 0.1957927793264389 | 0.3192880749702453 | -0.6784151792526245 | 1 | 0.2092948853969574 |
| movement_1 | 1 | 1 | 0.1865142732858657 | 0.3831679821014404 | -0.7832691669464111 | 1 | 0.1958589702844619 | 0.3192746639251709 | -0.7900877594947815 | 1 | 0.2094198167324066 |
| movement_1 | 1 | 1 | 0.1865954250097274 | 0.3849179446697235 | -0.7640161514282227 | 1 | 0.1963788121938705 | 0.3209910988807678 | -0.7708162665367126 | 1 | 0.2097910493612289 |
| movement_1 | 1 | 1 | 0.1861895024776458 | 0.3896296918392181 | -0.7471789121627808 | 1 | 0.196049764752388 | 0.3263798952102661 | -0.7668087482452393 | 1 | 0.2094113081693649 |
| movement_1 | 1 | 1 | 0.1874153465032577 | 0.389429360628128 | -0.6248605251312256 | 1 | 0.1977208405733108 | 0.3262328505516052 | -0.6262513995170593 | 1 | 0.2107677161693573 |
| movement_1 | 1 | 1 | 0.188778355717659 | 0.389298528432846 | -0.675320029258728 | 1 | 0.1998319029808044 | 0.3261939287185669 | -0.6346712708473206 | 1 | 0.2127199470996856 |
| movement_1 | 1 | 1 | 0.1898026168346405 | 0.389241784110199 | -0.9501815438270568 | 1 | 0.2002031207084655 | 0.3261159360408783 | -0.9454461932182312 | 1 | 0.2133643627166748 |
| movement_1 | 1 | 1 | 0.1924772560596466 | 0.3892109096050262 | -0.9241863489151 | 1 | 0.2024820744991302 | 0.3260280191898346 | -0.9301032423973083 | 1 | 0.2152464538812637 |
| movement_1 | 1 | 1 | 0.1944437026977539 | 0.3889981508255005 | -0.9536430835723876 | 1 | 0.2050021737813949 | 0.3249086737632751 | -0.947998046875 | 1 | 0.2183884680271148 |
| movement_1 | 1 | 1 | 0.1974653601646423 | 0.388906329870224 | -0.6842021942138672 | 1 | 0.2085054665803909 | 0.3248607218265533 | -0.6945465803146362 | 1 | 0.2210733443498611 |
| movement_1 | 0 | 2 | 0.2095188349485397 | 0.3786954879760742 | -0.6873359680175781 | 1 | 0.2173645347356796 | 0.3180559873580932 | -0.6837792992591858 | 1 | 0.2298860847949981 |

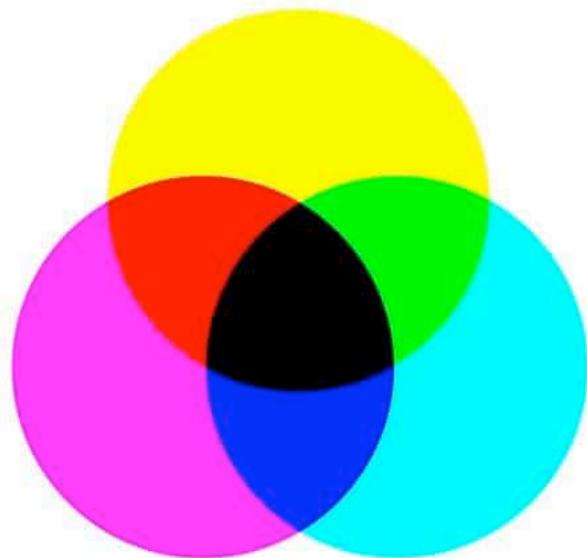
Computer Vision

La visió per ordinador és un camp de les dades que permet a les màquines interpretar i comprendre informació visual d'imatges i vídeos, de manera similar a com els humans veuen i comprenen el seu entorn

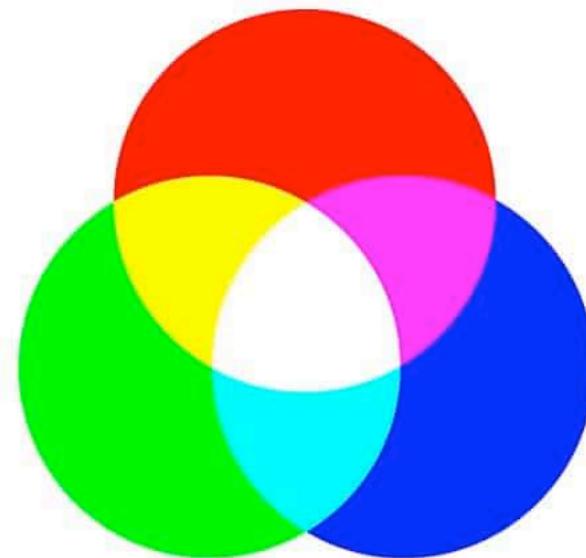


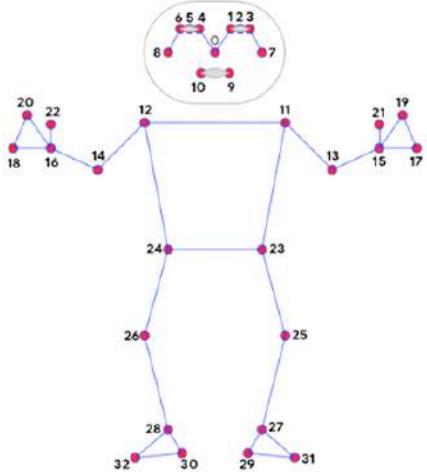
RGB

CMYK

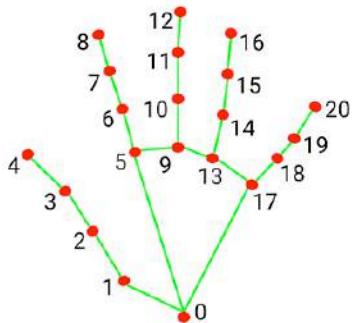


RGB

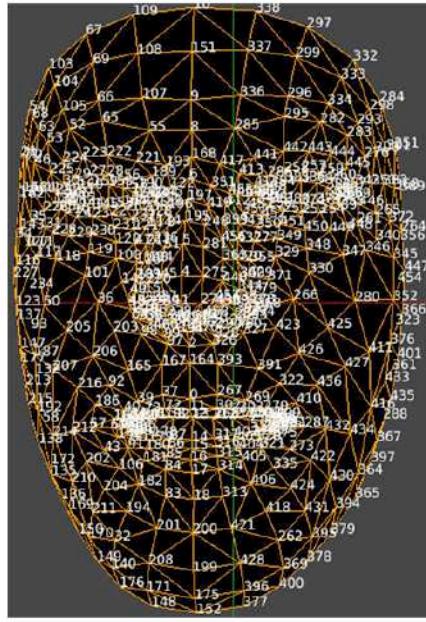


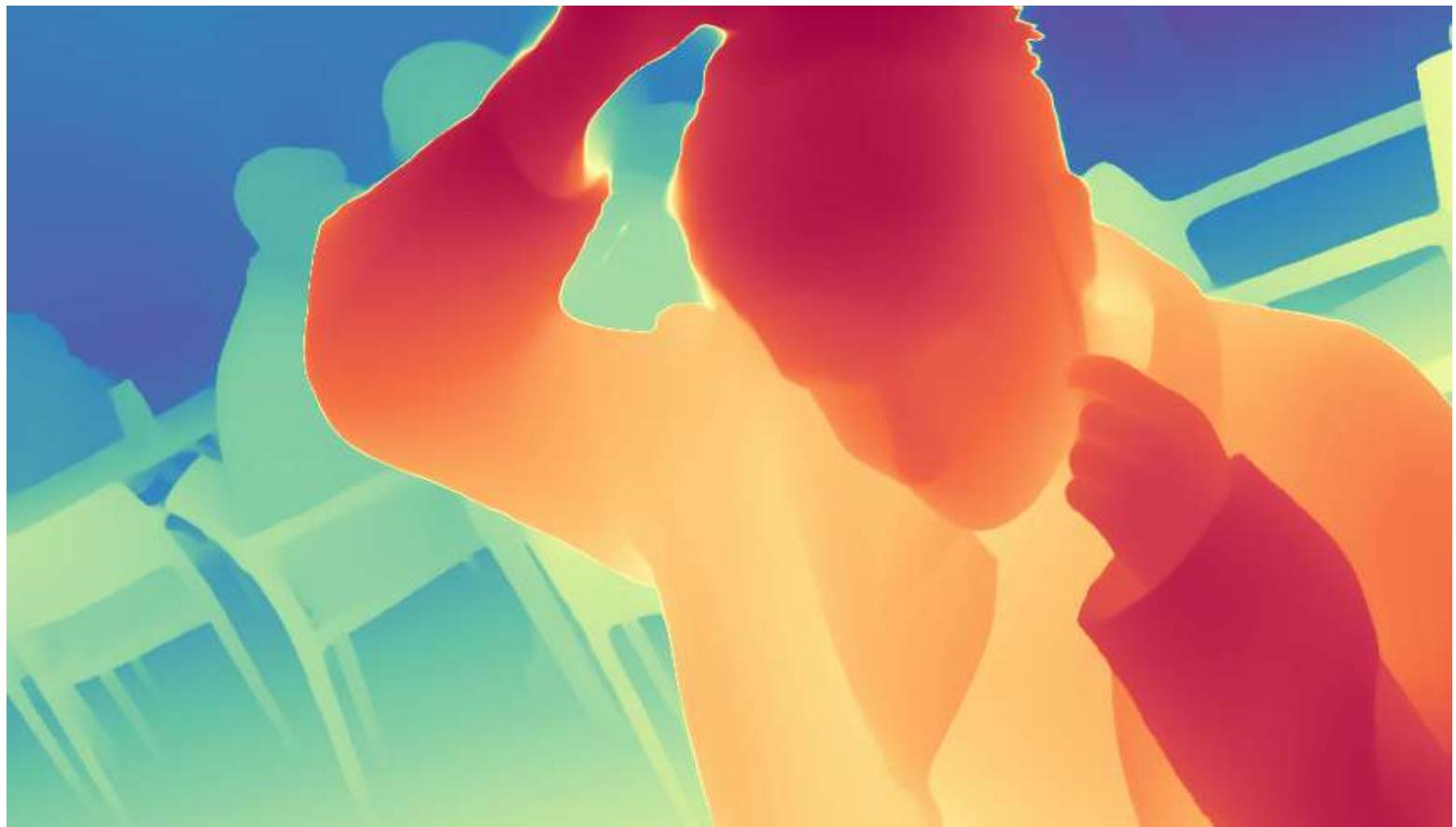


- 0. nose
- 1. left_eye_inner
- 2. left_eye
- 3. left_eye_outer
- 4. right_eye_inner
- 5. right_eye
- 6. right_eye_outer
- 7. left_ear
- 8. right_ear
- 9. mouth_left
- 10. mouth_right
- 11. left_shoulder
- 12. right_shoulder
- 13. left_elbow
- 14. right_elbow
- 15. left_wrist
- 16. right_wrist
- 17. left_pinky
- 18. right_pinky
- 19. left_index
- 20. right_index
- 21. left_thumb
- 22. right_thumb
- 23. left_hip
- 24. right_hip
- 25. left_knee
- 26. right_knee
- 27. left_ankle
- 28. right_ankle
- 29. left_heel
- 30. right_heel
- 31. left_foot_index
- 32. right_foot_index



- 0. WRIST
- 1. THUMB_CMC
- 2. THUMB_MCP
- 3. THUMB_IP
- 4. THUMB_TIP
- 5. INDEX_FINGER_MCP
- 6. INDEX_FINGER_PIP
- 7. INDEX_FINGER_DIP
- 8. INDEX_FINGER_TIP
- 9. MIDDLE_FINGER_MCP
- 10. MIDDLE_FINGER_PIP
- 11. MIDDLE_FINGER_DIP
- 12. MIDDLE_FINGER_TIP
- 13. RING_FINGER_MCP
- 14. RING_FINGER_PIP
- 15. RING_FINGER_DIP
- 16. RING_FINGER_TIP
- 17. PINKY_MCP
- 18. PINKY_PIP
- 19. PINKY_DIP
- 20. PINKY_TIP



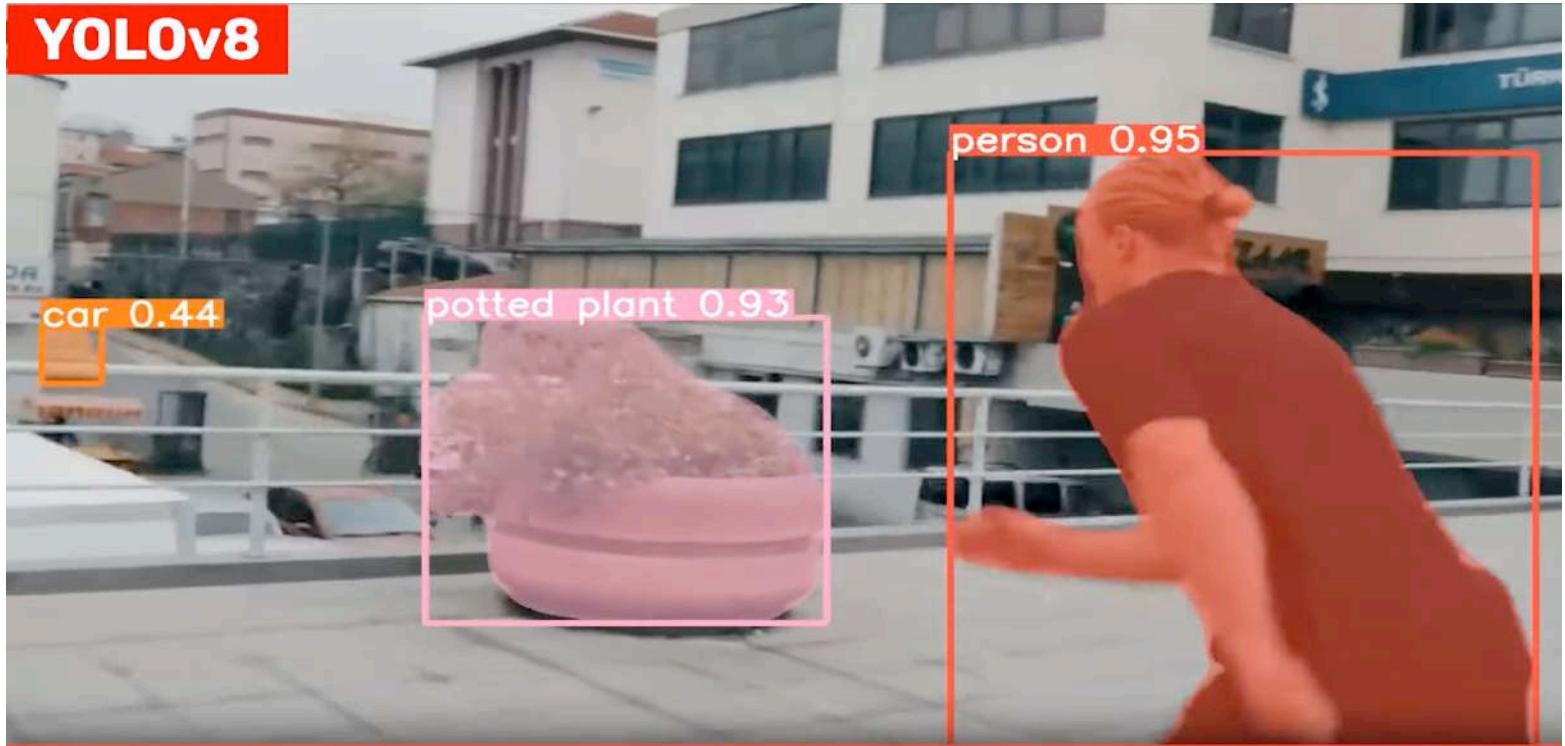


Jorge Muñoz - DepthAnythingV2

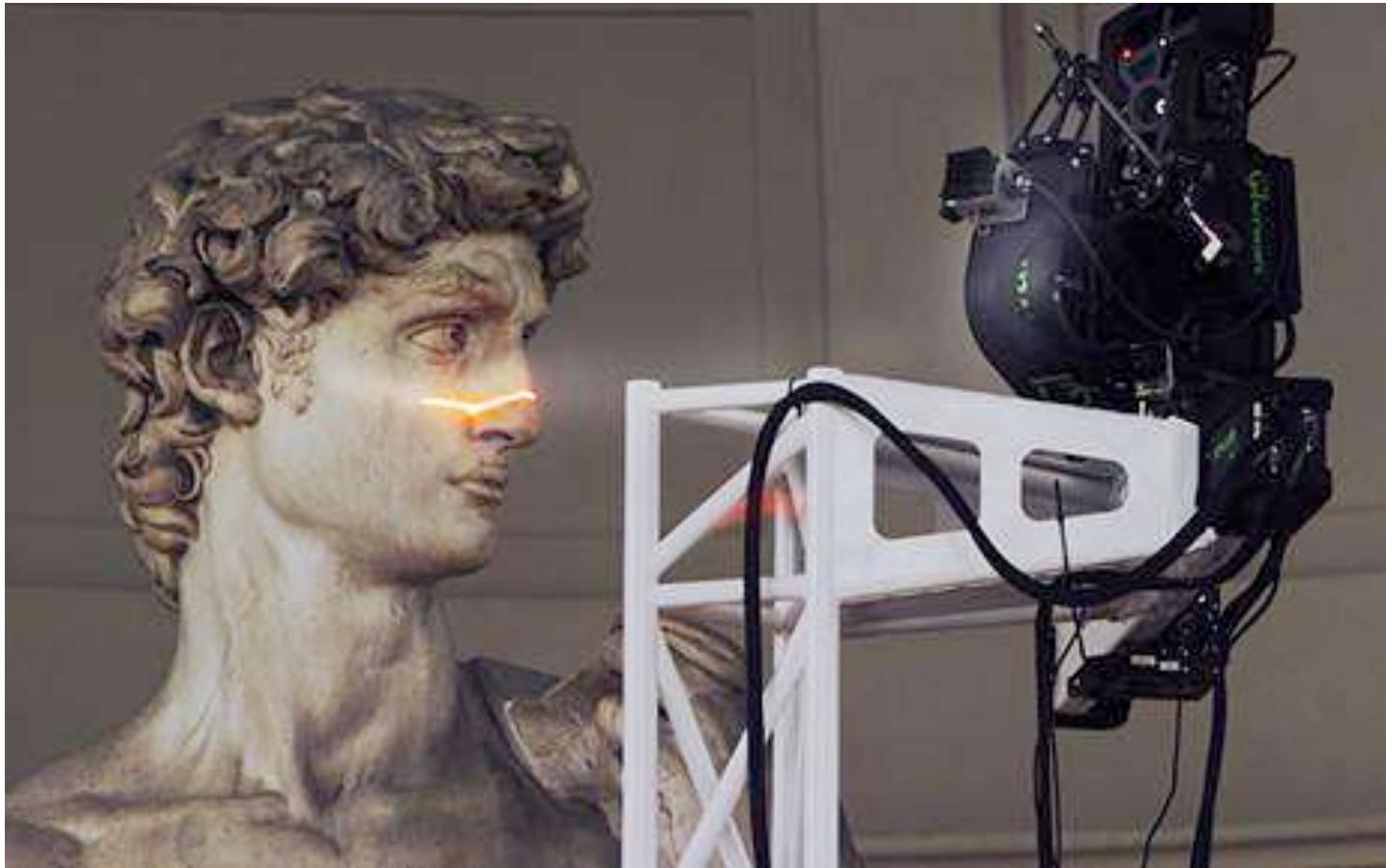


Why am I always hot? - DOES Work

YOLOv8



YOLOv8 Object Detection + Instance Segmentation



The Digital Michelangelo Project



for Allen Covenant

Quins formats utilitzem?

.jpg / .jpeg



.png

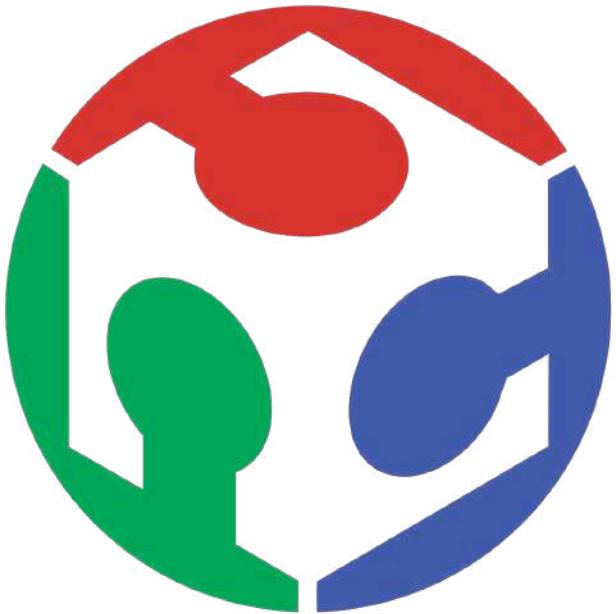


Fab Lab Logo - Fab Lab Symbol Png,Lab Png - free transparent
png images ...

pngaaa.com

900 × 1076

[Mostra el fitxer](#)



.tif / .tiff



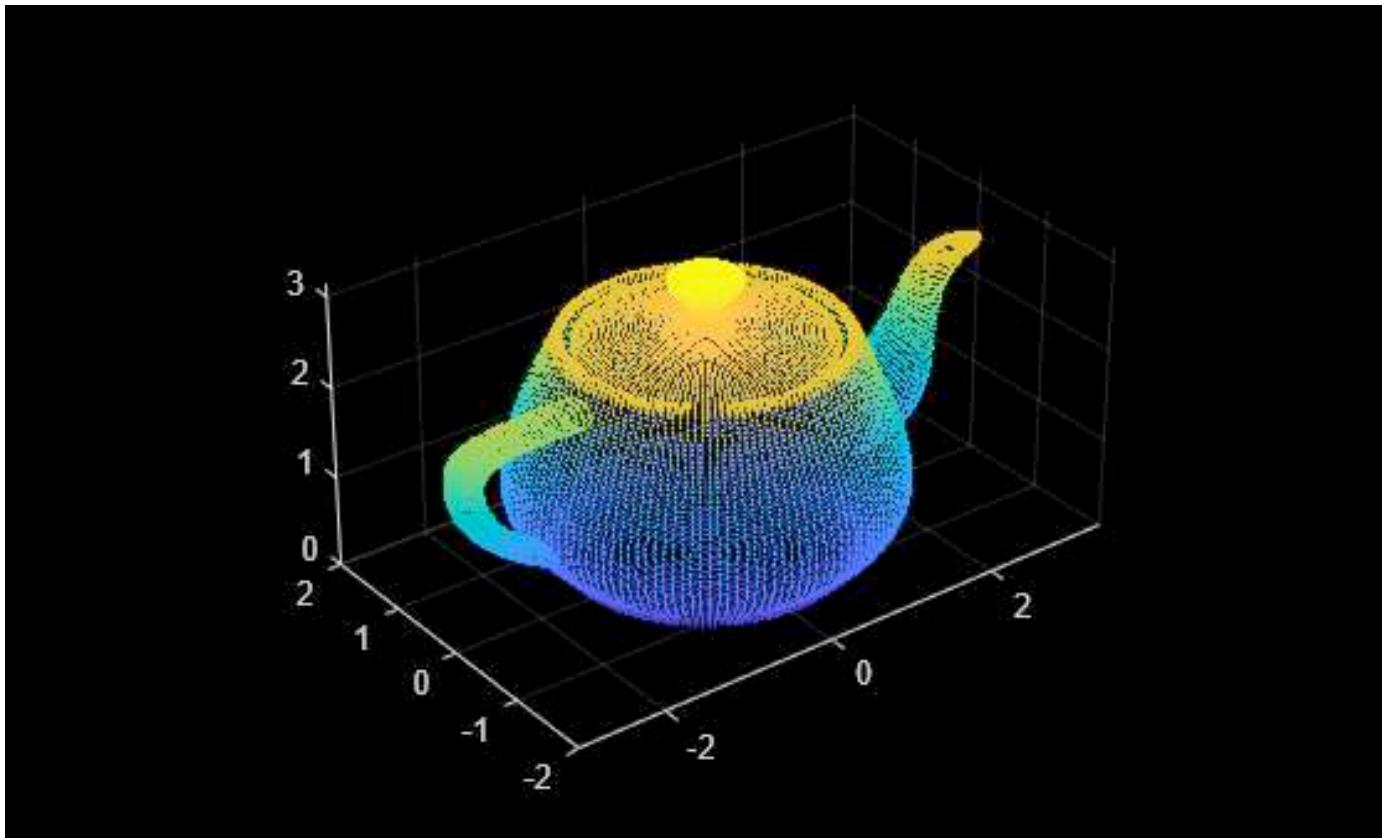
.mp4 / .avi



.stl / .fbx / .3mf / .obj



.ply



Dades Físiques

Engloba la informació recollida del món físic a través de la mesura directa o la detecció de propietats tangibles. Això inclou dades de sensors IoT que mesuren la temperatura, la humitat, la pressió o el moviment; monitors ambientals que rastrejen la qualitat de l'aire o els nivells d'aigua





Iphone LiDAR Sensor - Apple



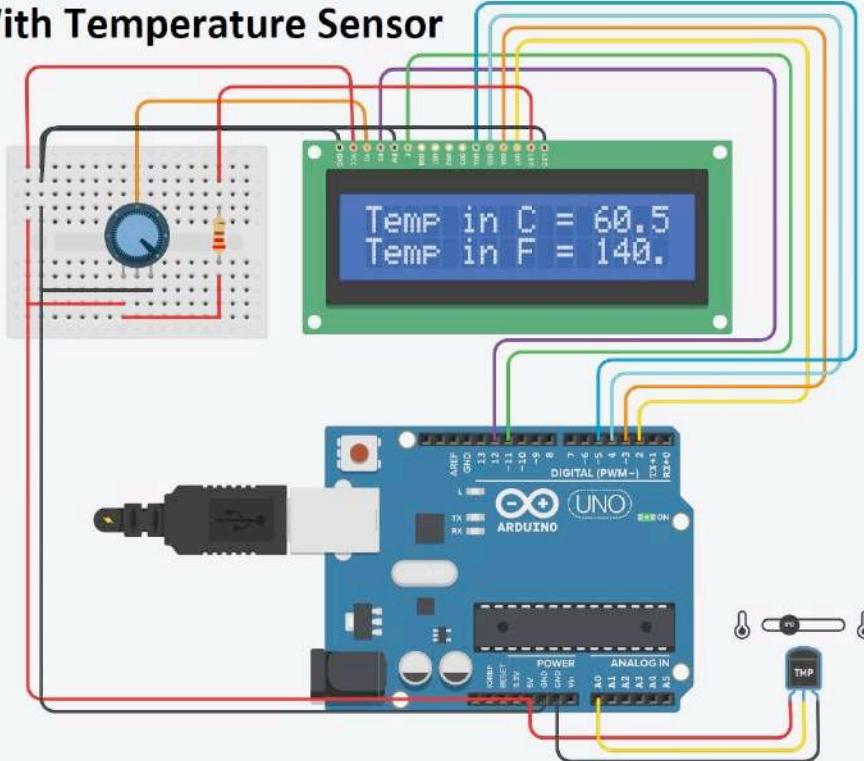
FAB25 Czechia Papers Stream: Embodied Knowledge in Digital Spaces: Towards Human-Centred Fabrication Formats - Jorge Muñoz Zanón



FAB25 Czechia Papers Stream: Embodied Knowledge in Digital Spaces: Towards Human-Centered Fabrication Formats - Jorge Muñoz Zanón



Arduino With Temperature Sensor



Hackatronic.com

Ó_WEB ... index.html X ra1.html M ra1_backup.html U

Institut Pompeu Fabra

FMB0_1665

```
<!DOCTYPE html>
<html lang="ca">
    <head>
        <meta charset="UTF-8" />
        <meta name="viewport" content="width=device-width, initial-scale=1.0" />
        <link rel="preconnect" href="https://fonts.googleapis.com">
        <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
        <link href="https://fonts.googleapis.com/css2?family=Space+Grotesk:wght@300..700&display=swap" rel="stylesheet">
        <link href="https://use.fontawesome.com/releases/v5.15.1/css/all.css" integrity="sha384-vp6vNlqFt5vVVNT3z9nTz9oZnXgqDdNtEJwVcPjyVxGqKtL" crossorigin="anonymous">
        <link rel="stylesheet" href="./styles/styles.css" />
    </head>
    <body>
        <nav class="navbar">
            <a href="index.html" class="navbar__logo">FMB0_1665</a>
            <div class="navbar__bars"><i class="fas fa-bars"></i></div>
            <ul class="navbar__menu">
                <a href="./static/RAs/ra1.html" class="navbar__menu--links">RA1</a>
                <a href="./static/RAs/ra2/" class="navbar__menu--links">RA2</a>
                <a href="./static/RAs/ra3/" class="navbar__menu--links">RA3</a>
                <a href="#" class="navbar__menu--links navbar__menu--disabled">RA4</a>
                <a href="#" class="navbar__menu--links navbar__menu--disabled">RA5</a>
                <a href="#" class="navbar__menu--links navbar__menu--disabled">RA6</a>
            </ul>
        </nav>
        <div class="hero">
            <div class="hero__container">
                <div class="hero__container--content">
                    <h1 class="hero__title">Digitalització Aplicada al Sector Productiu</h1>
                    <h2 class="hero__subtitle">Institut Pompeu Fabra</h2>
                    <p class="hero__text">Curs 2025/26</p>
                </div>
            </div>
        </div>
    </body>
</html>
```

Digitalització Aplicada al Sistema Productiu

RA2 Classe 02

Tecnologies habilitadores digitals

IoT

Tecnologies habilitadores digitals

Què és?

Internet de les coses (IoT), fa referència a la gran varietat d'objectes físics equipats amb sensors i programari que els permeten interactuar amb poca intervenció humana mitjançant la recopilació i l'intercanvi de dades a través d'una xarxa.

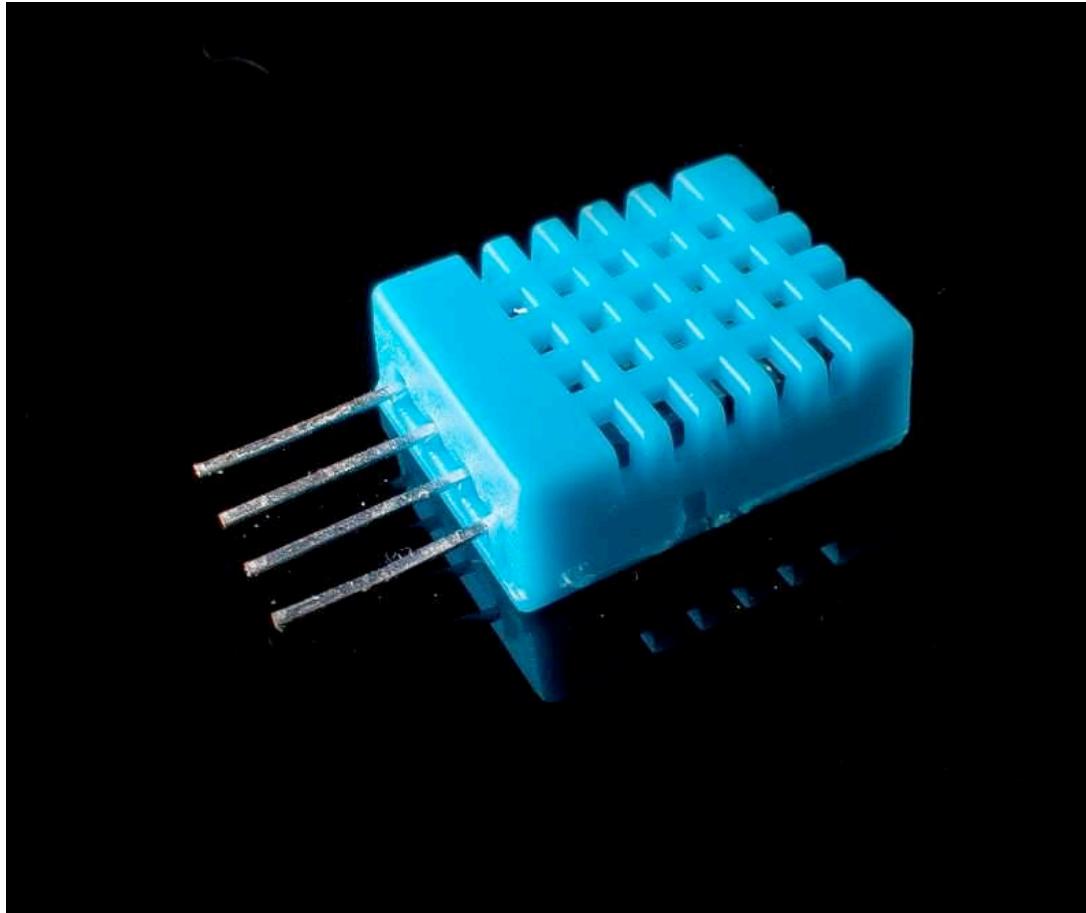
Sensors

Els sensors són els components que permeten als dispositius IoT percebre el món que els envolta. Actuen com els nostres sentits: ens permeten mesurar temperatura, detectar moviment, captar llum, sentir vibracions, i molt més.



Ambientals

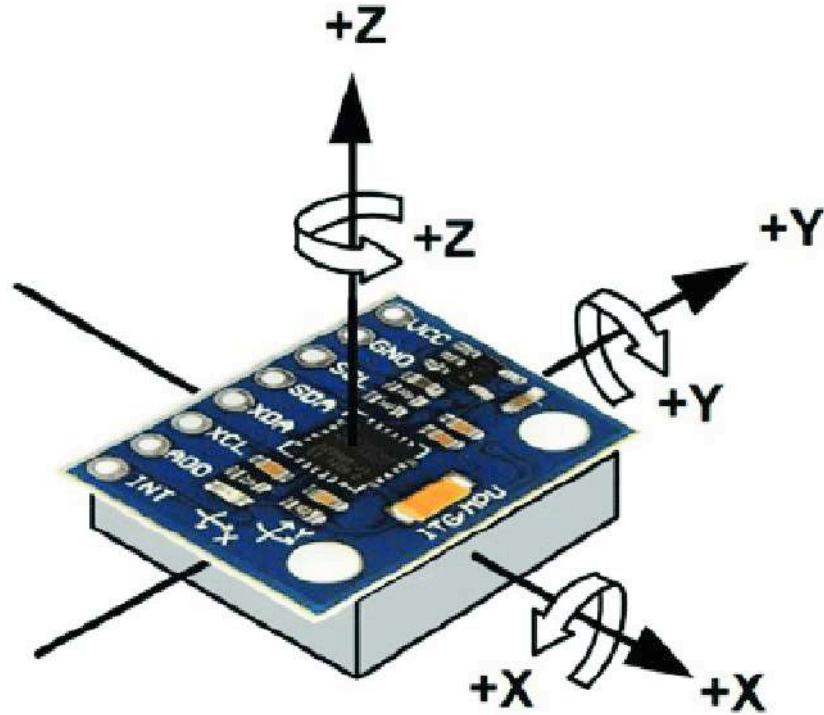




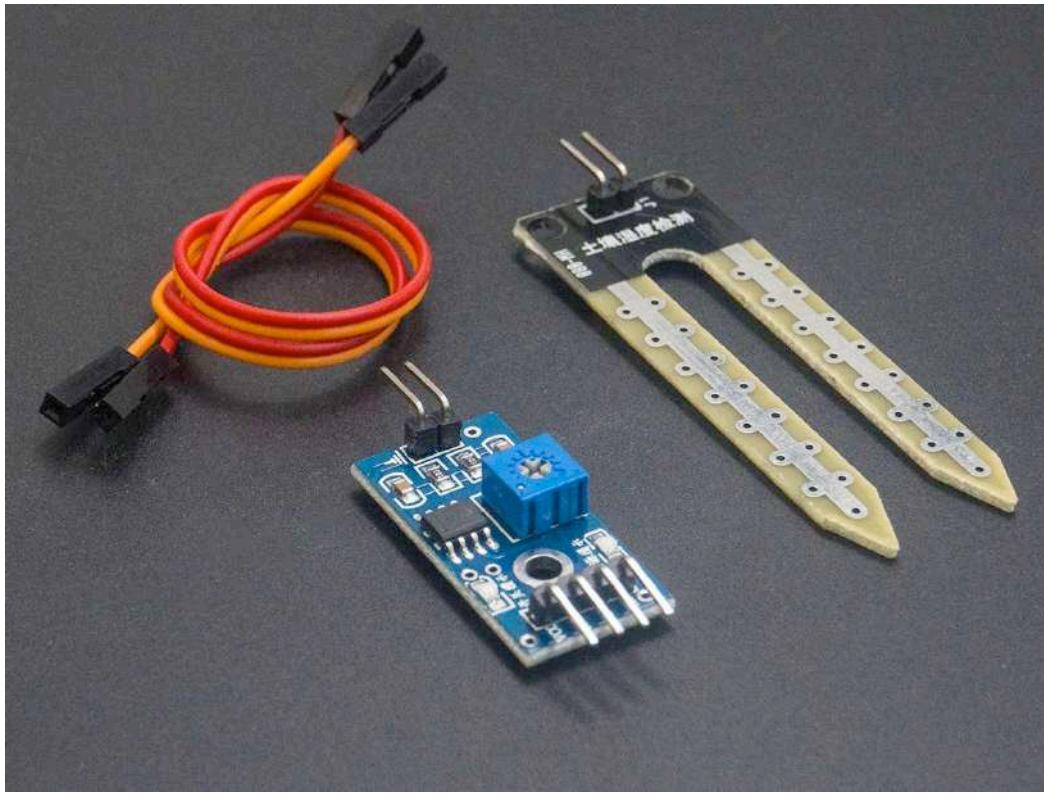


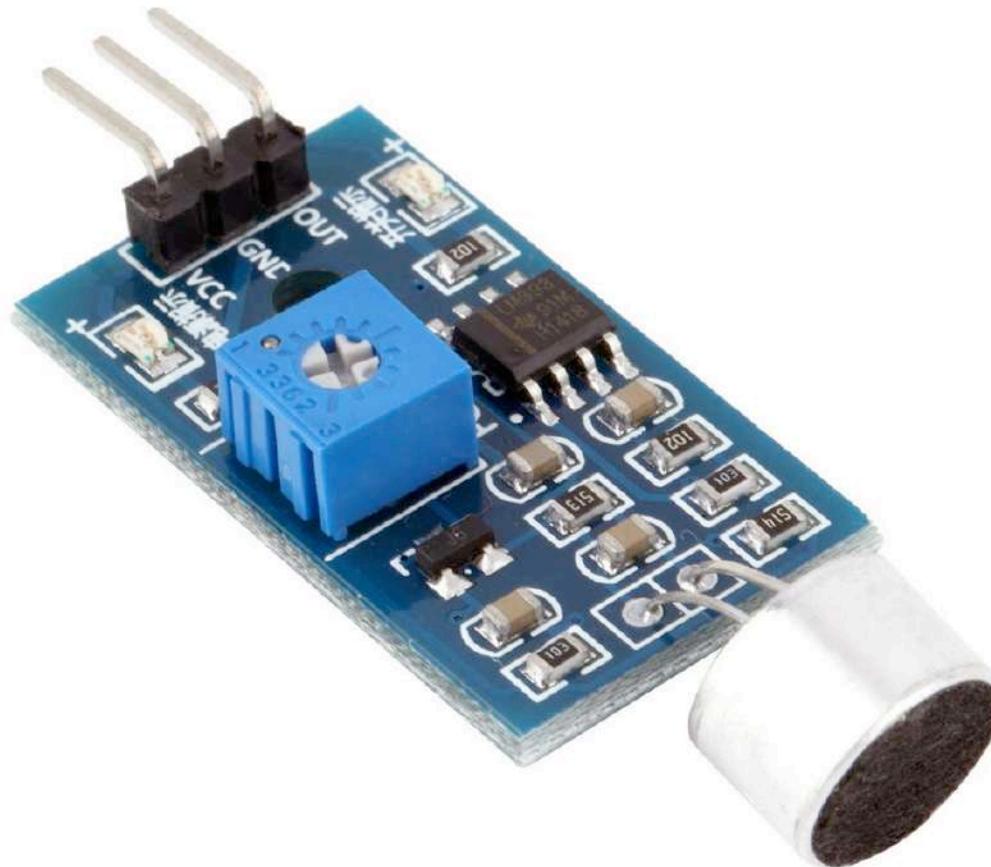
Movement

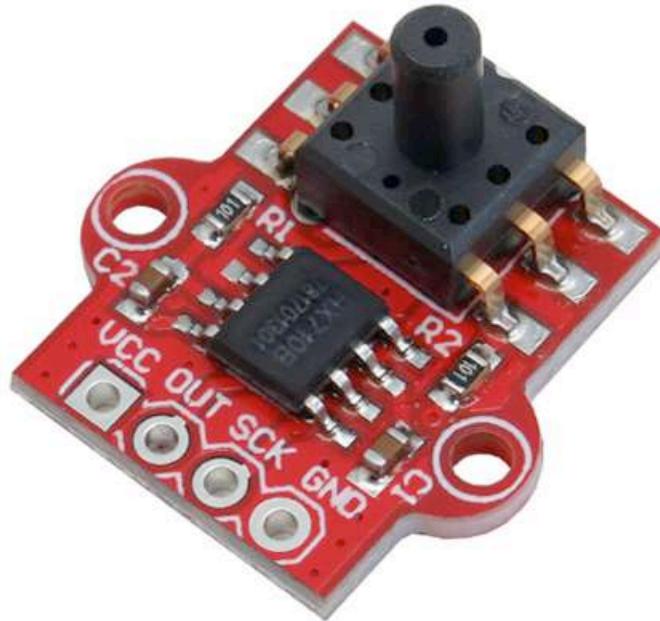
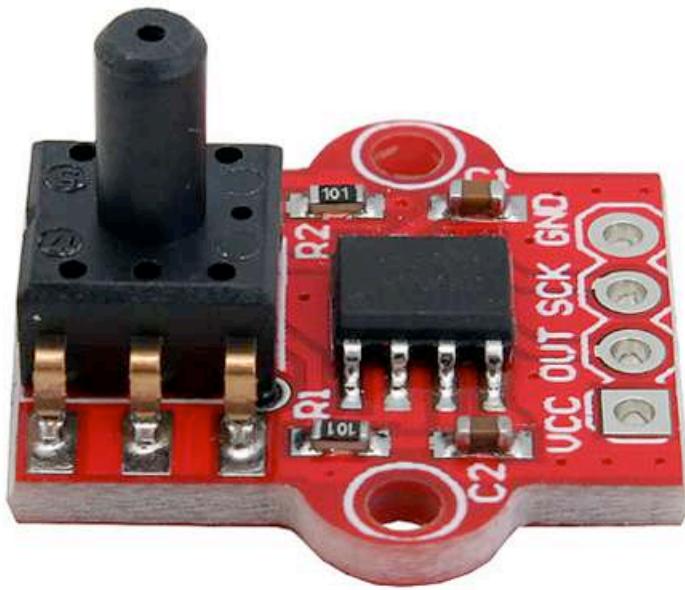




Altres



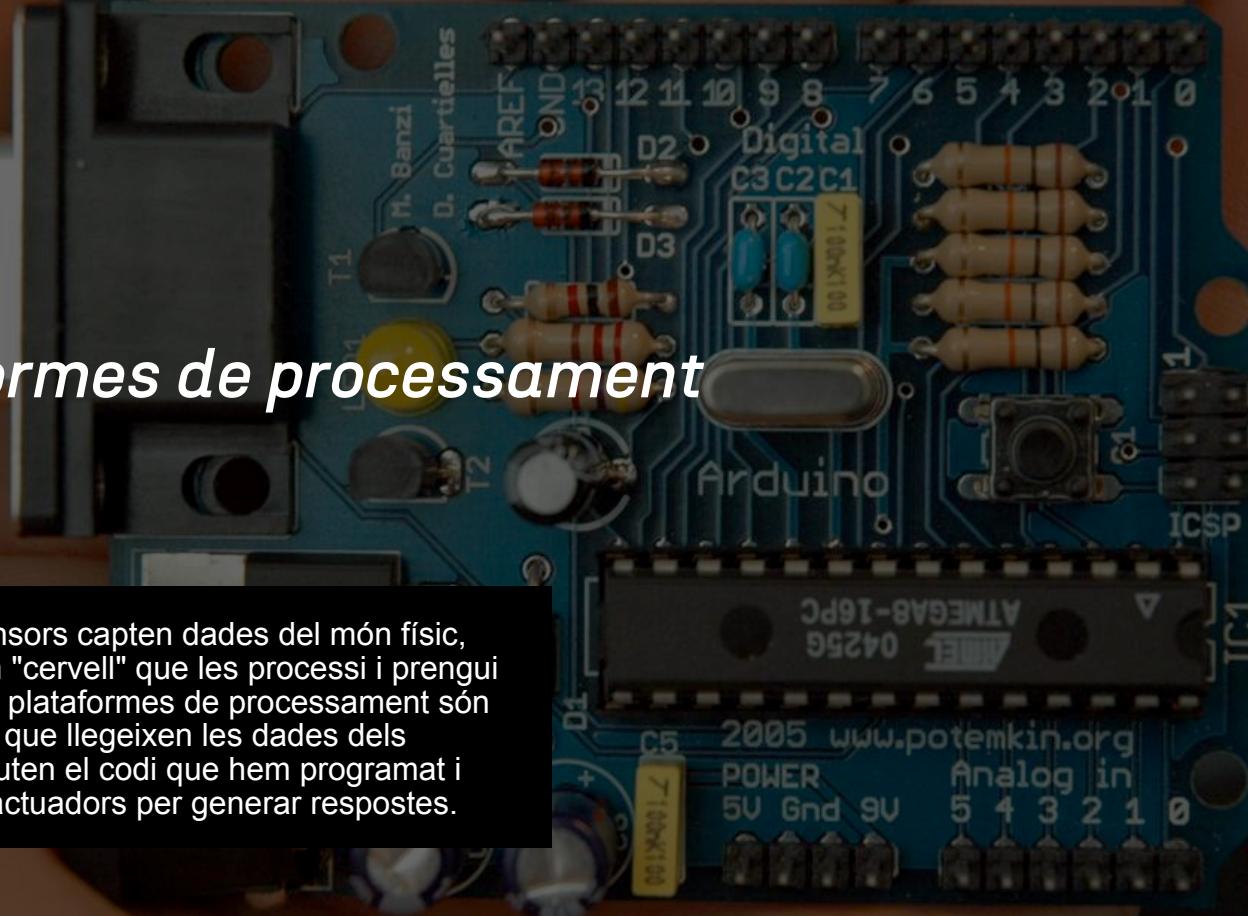


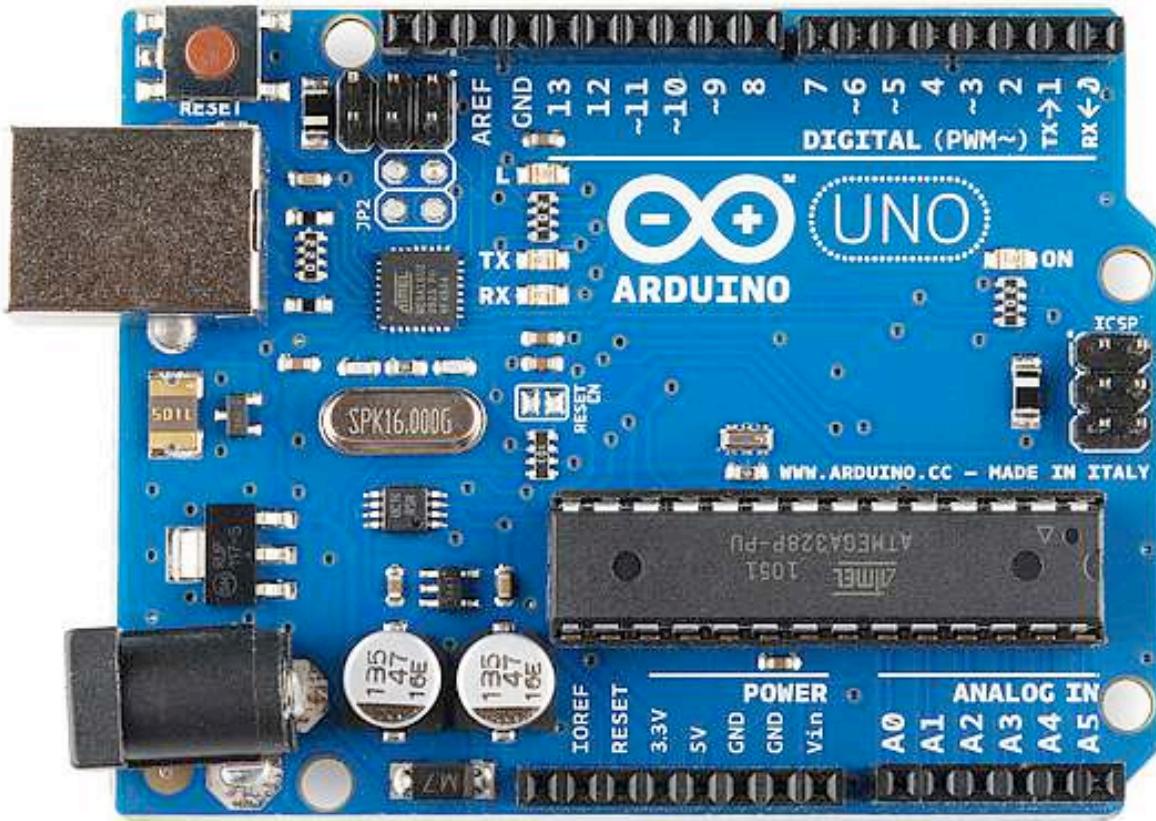




Plataformes de processament

Un cop els sensors capten dades del món físic, necessitem un "cervell" que les processi i prengui decisions. Les plataformes de processament són els dispositius que llegeixen les dades dels sensors, executen el codi que hem programat i controlen els actuadors per generar respostes.





Arduino UNO

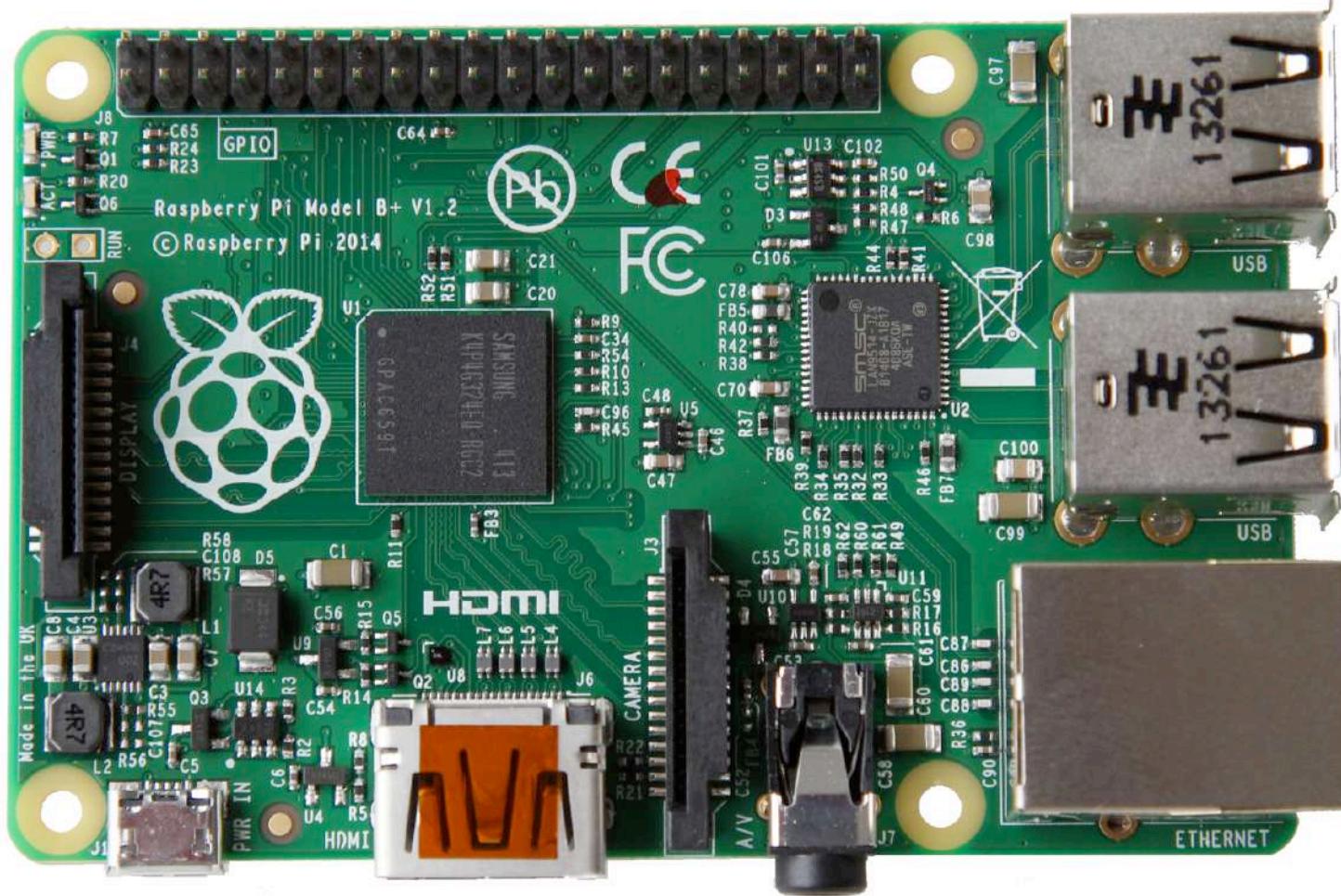
Arduino

Basat en microcontroladors,
ideal per a principiants

En temps real, baixa potència

Processament/connectivitat
limitat

Millor per: Lectura simple de
sensors, control d'actuadors



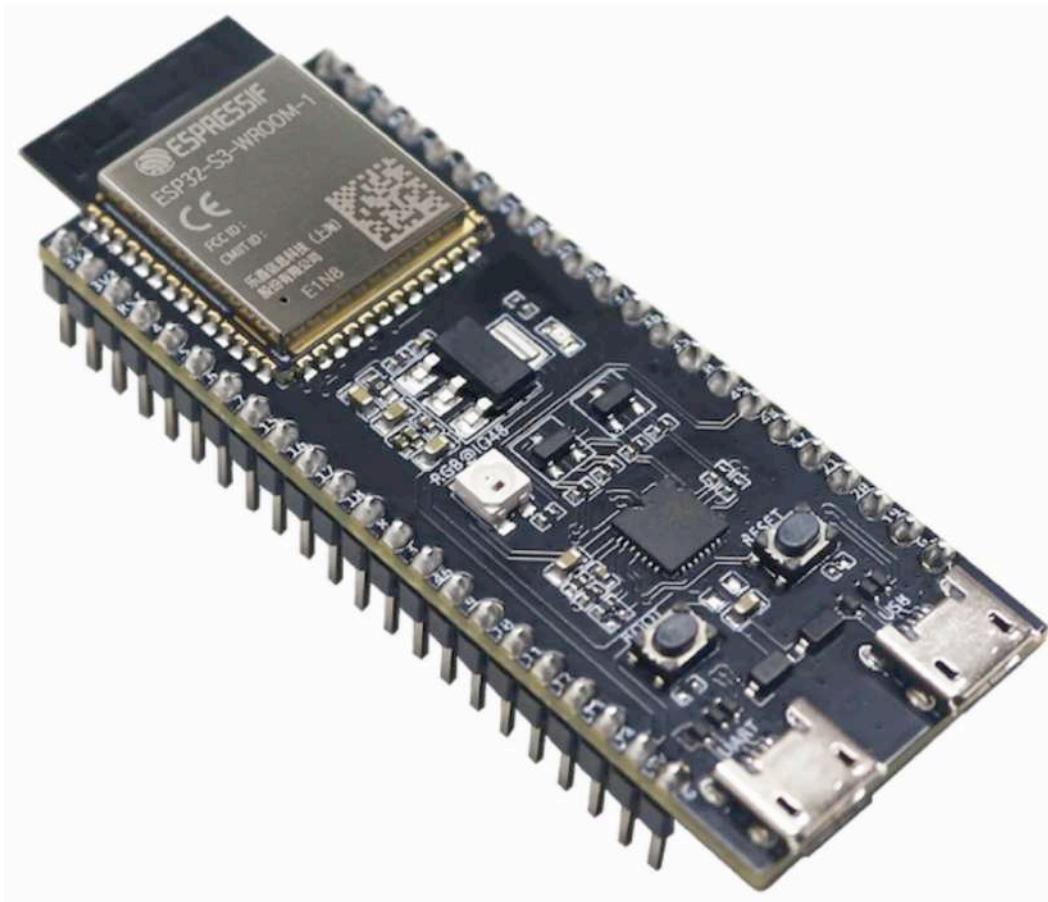
Raspberry Pi

Ordinador complet, executa
Linux

Més potència de processament,
més fàcil de crear xarxes

Major consum d'energia

Millor per: Tractament de dades,
servidors, visió per ordinador



Esp32 S3 Devkitc-1 - tschies1j4schematic.z21.web.core.windows.net

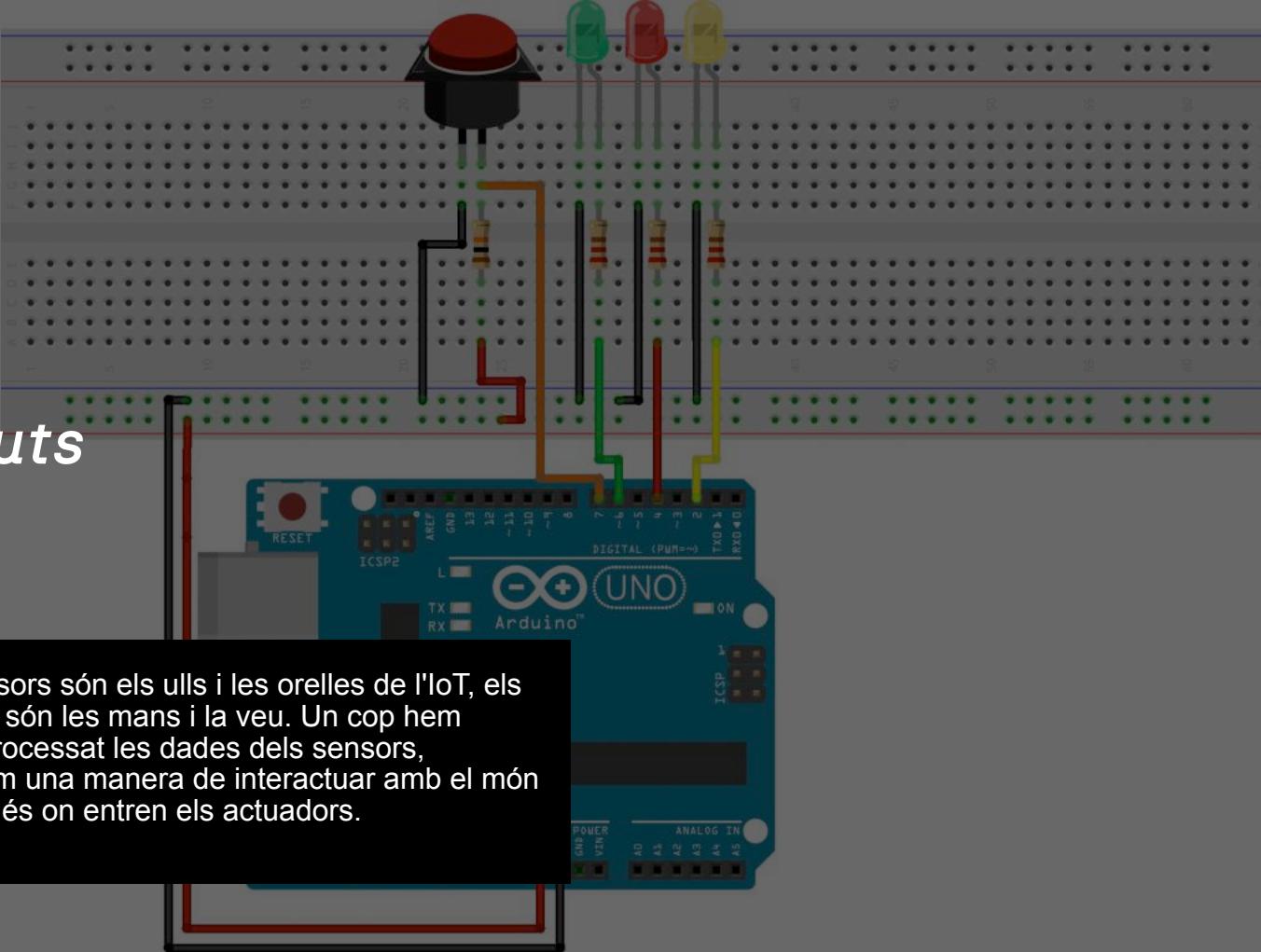
ESP32/ESP8266

Microcontroladors amb WiFi/
Bluetooth incorporat

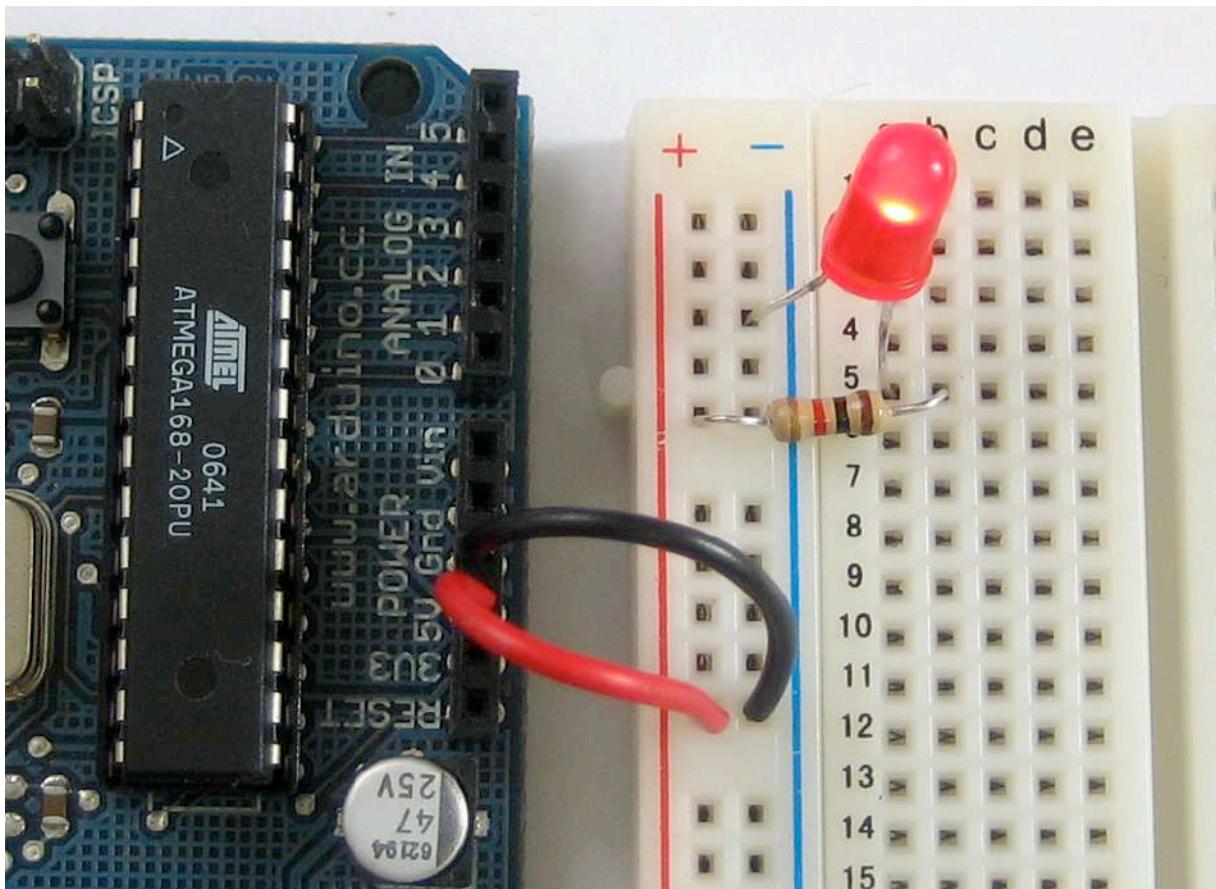
Terra mitjana perfecta per a
projectes IoT

Molt popular per a projectes
connectats

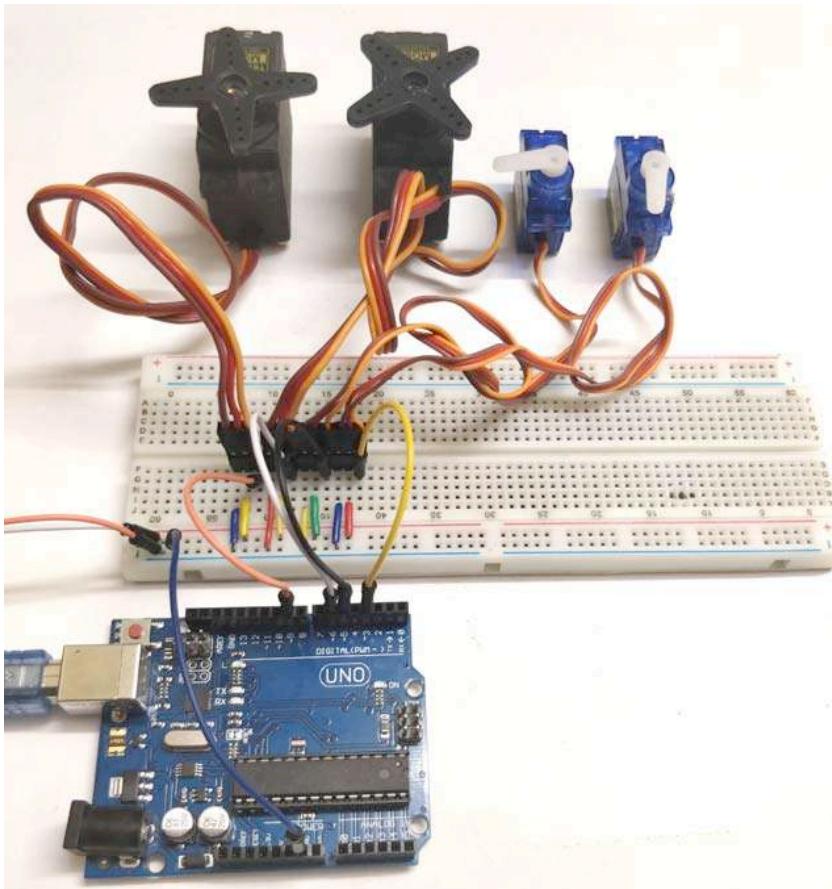
Outputs



Si els sensors són els ulls i les orelles de l'IoT, els actuadors són les mans i la veu. Un cop hem recollit i processat les dades dels sensors, necessitem una manera de interactuar amb el món físic: aquí és on entren els actuadors.







Servomotors - <https://circuitdigest.com/microcontroller-projects/controlling-multiple-servo-motors-with-arduino>

Activitat 1: Dades i sensors

Resolgueu el test de tipus de dades i
sensors

Ó_WEB ... index.html X ra1.html M ra1_backup.html U

Institut Pompeu Fabra

FMB0_1665

```
<!DOCTYPE html>
<html lang="ca">
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        <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
        <link href="https://fonts.googleapis.com/css2?family=Space+Grotesk:wght@300..700&display=swap" rel="stylesheet">
        <link href="https://use.fontawesome.com/releases/v5.15.1/css/all.css" integrity="sha384-vp6vTrqyJLcOoTjRJLWp9tPf0TnPUlZLmUJdXKqDzJLWp9tPf0TnPUlZLmUJdXKqDz" crossorigin="anonymous" />
        <link rel="stylesheet" href="./styles/styles.css" />
    </head>
    <body>
        <nav class="navbar">
            <a href="index.html" class="navbar__logo">FMB0_1665</a>
            <div class="navbar__bars"><i class="fas fa-bars"></i></div>
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                <a href="#" class="navbar__menu--links navbar__menu--disabled">RA5</a>
                <a href="#" class="navbar__menu--links navbar__menu--disabled">RA6</a>
            </ul>
        </nav>
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            <div class="hero__container">
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                    <h2 class="hero__subtitle">Institut Pompeu Fabra</h2>
                    <p class="hero__text">Curs 2025/26</p>
                </div>
            </div>
        </div>
    </body>
</html>
```

Digitalització Aplicada al Sistema Productiu

RA2 Classe 03

Tecnologies habilitadores digitals

Cloud Computing

Tecnologies habilitadores digitals

*Els sensors IoT generen
moltes dades... on les
guardem i processem?*

Anys 80-90: Ordinadors Locals

Imagineu una oficina als anys 90. Cada treballador tenia el seu PC amb tots els programes instal·lats localment. Si el disc dur fallava, perdes tota la informació. Si necessitaves més potència per a un projecte gran, havies de comprar un ordinador nou. Era com tenir tots els ous en el mateix cistell.



1984 Apple Macintosh hardware gets emulated in a browser



[1984 Apple Macintosh hardware gets emulated in a browser](#)

Finals 90 - 2000: L'Era dels Servidors

Les empreses van començar a centralitzar. En lloc de tenir les dades a cada PC, es guardaven en un servidor central a l'oficina. Penseu en el servidor de fitxers de l'institut: tots els alumnes poden accedir als seus documents des de qualsevol ordinador del centre.





[1984 Apple Macintosh hardware gets emulated in a browser](#)

2000-2010: Data Centers

Les grans empreses van construir edificis plens de servidors. Google, per exemple, té centres de dades que ocupen camps de futbol sencers, amb milers de servidors funcionant 24/7. Aquests centres tenen generadors de backup, sistemes de refrigeració redundants, seguretat física... Però construir i mantenir això costa milions d'euros.

OpenAI and Oracle to deploy 64,000 GB200 GPUs at Stargate Abilene data center by 2026 – report



OpenAI and Oracle to deploy 64,000 GB200 GPUs at Stargate Abilene data center by 2026 – report

Ó_WEB

index.html X ra1.html M ra1_backup.html U

index.html > html > head > link

```
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2  <html lang="ca">
3      <head>
4          <meta charset="UTF-8" />
5          <meta name="viewport" content="width=device-width, initial-scale=1.0" />
6          <link rel="preconnect" href="https://fonts.googleapis.com">
7          <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
8          <link href="https://fonts.googleapis.com/css2?family=Space+Grotesk:wght@300..700&display=swap" rel="stylesheet">
9          <link
10             rel="stylesheet"
11             href="https://use.fontawesome.com/releases/v5.15.1/css/all.css"
12             integrity="sha384-vp86vTRFVJgpjF9jiIGPEEqYqlDwgyBgEF109VFjmqGmIY/Y4HV4d3Gp2irVfcrp"
13             crossorigin="anonymous"
14         />
15         <title>Digitització Aplicada al Sector Productiu</title>
16     </head>
17     <body>
18         <nav class="navbar">
19             <a href="index.html" class="navbar__logo">FMB0_1665</a>
20             <div class="navbar__bars"><i class="fas fa-bars"></i></div>
21             <div class="navbar__menu">
22                 <a href="/static/RA1/ra1.html" class="navbar__menu--links">RA1</a>
23                 <a href="#" class="navbar__menu--links">RA2</a>
24                 <a href="#" class="navbar__menu--links">RA3</a>
25                 <a href="#" class="navbar__menu--disabled">RA4</a>
26                 <a href="#" class="navbar__menu--disabled">RA5</a>
27                 <a href="#" class="navbar__menu--disabled">RA6</a>
28                 <a href="#" class="navbar__menu--links">Info</a>
29             </div>
30         </nav>
31         <div class="hero__container--content">
32             <h1 class="hero__title">Digitalització Aplicada al Sector Productiu</h1>
33             <h2 class="hero__subtitle">Institut Pompeu Fabra</h2>
34             <p class="hero__text">Cursa 2025/26</p>
35         </div>
36     </body>
37 </html>
```

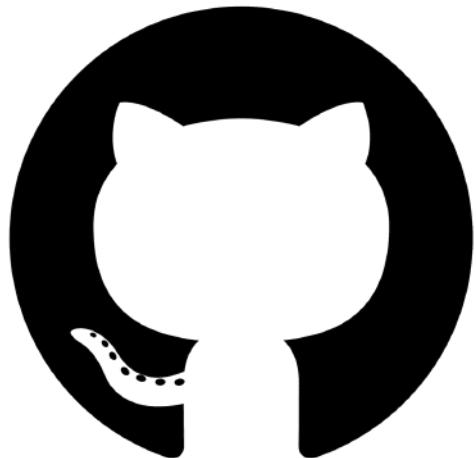
2010-Actualitat: Cloud Computing

Ara, en lloc de comprar servidors, els "lloguem" per hores. Netflix no té cap servidor propi, utilitza Amazon Web Services. Quan estrenen una sèrie nova i milions de persones la veuen, simplement "lloga" més capacitat per unes hores. Quan baixa la demanda, deixa de pagar per aquests recursos extra. Pagues pel que uses, quan ho uses.

Què és?

La informàtica al núvol (de l'anglès **cloud computing**), també coneguda com a computació al núvol o serveis al núvol, és el **subministrament de serveis informàtics** (inclosos servidors, emmagatzematge, bases de dades, xarxes, programari, anàlisi i intel·ligència) **a través d'Internet ("el núvol")** mitjançant un esquema de **pagament per ús**.

Plataformes d'emmagatzematge



GitHub

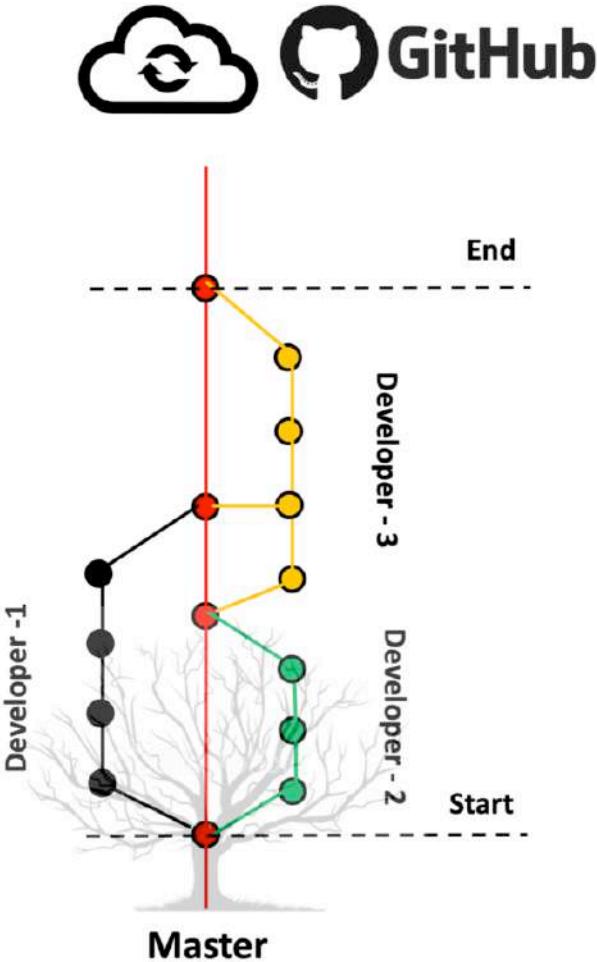
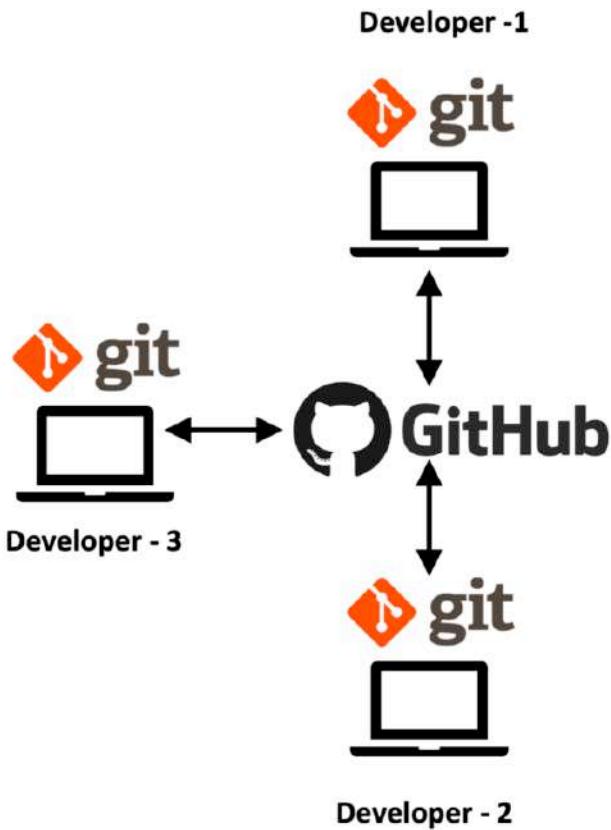
Github



GitLab



git





jmuozan / FMB01_1665_IPompeuFabra

Type to search

Code

Issues

Pull requests

Actions

Projects

Wiki

Security

Insights

Settings



FMB01_1665_IPompeuFabra

Public

Unpin

Watch 0

Fork 0

Star 0

main

1 Branch

0 Tags

Go to file

t

Add file

Code



jmuozan RA2 page 13/10/2025 ✓

c37741e · 2 weeks ago

53 Commits

imgs

pdf presentation bigger

last month

js

comments to js

last month

static

RA2 page 13/10/2025

2 weeks ago

styles

reestructurant

last month

.gitignore

RA2 page 13/10/2025

2 weeks ago

LICENSE

Initial commit

last month

README.md

readme updated

last month

index.html

RA2 page 13/10/2025

2 weeks ago

README

MIT license



Web de recursos per l'assignatura Digitalització aplicada als sectors productius (FMB0_1665) del Cicle Formatiu Programació de la Producció i Disseny en Fabricació Mecànica (3x2) de l'[Institut Pompeu Fabra](#) curs 2025/2026

About

Web de recursos per l'assignatura Digitalització aplicada als sectors productius (FMB0_1665) del Cicle Formatiu Programació de la Producció i Disseny en Fabricació Mecànica (3x2) de l'[Institut Pompeu Fabra](#) curs 2025/2026

jmuozan.github.io/FMB01_1665_IPompeuFabra/

[website](#) [classes](#)

[Readme](#)

[MIT license](#)

[Activity](#)

[0 stars](#)

[0 watching](#)

[0 forks](#)

Deployments 52

[github-pages](#) 2 weeks ago

[+ 51 deployments](#)

Languages

Jmuozan GitHub

Plataformes d'execuació

The image features the AWS logo in white, sans-serif font. A thick, curved yellow arrow starts from the bottom left, passes under the letter 'S', and points towards the top right. The background is dark grey with a subtle, faint watermark pattern of the same yellow arrow repeated across it.

aws

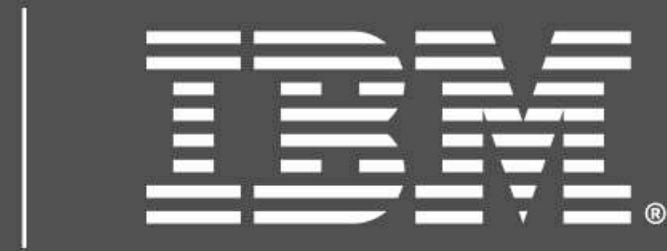


Google Cloud

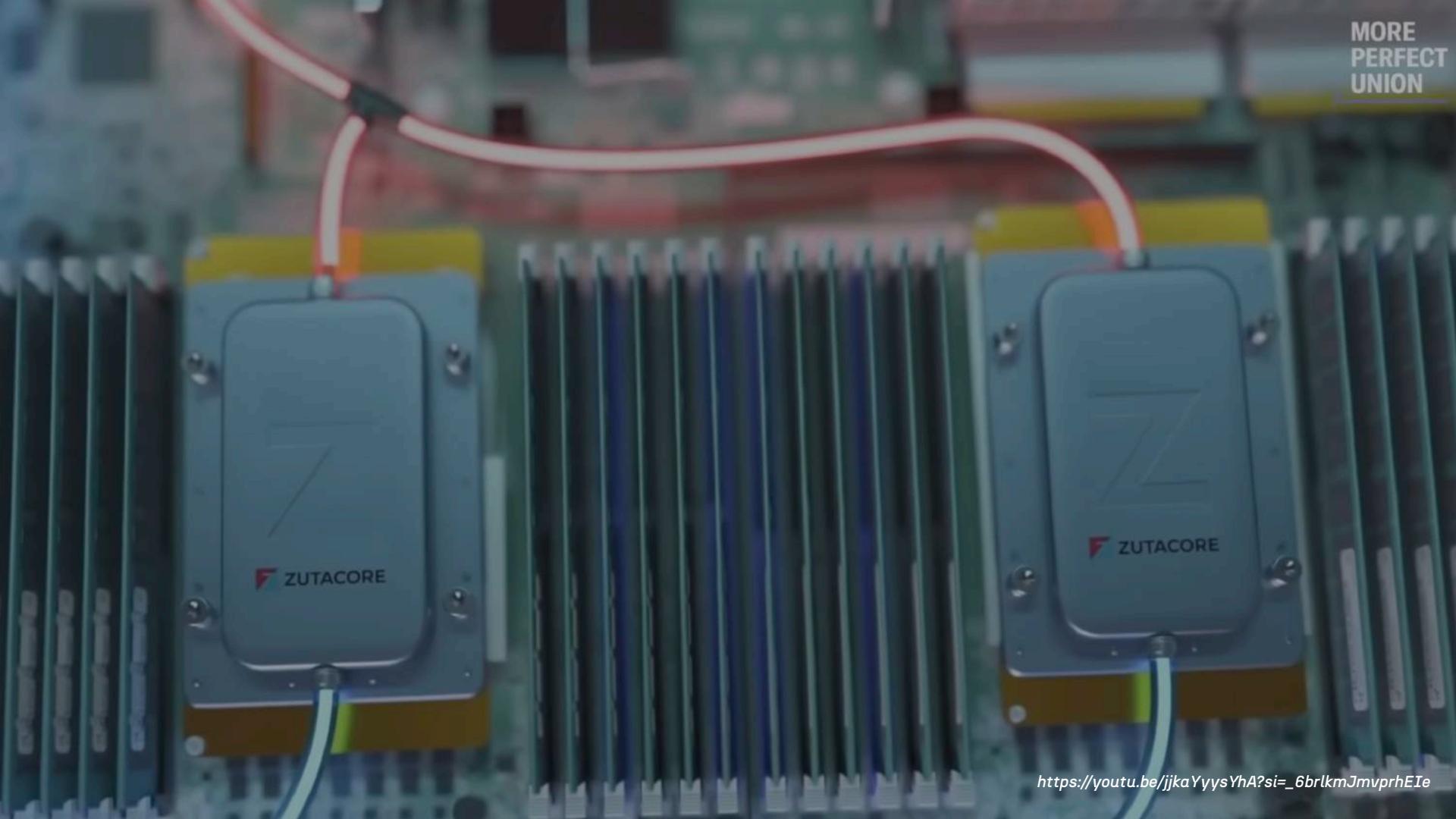
Google Cloud



Red Hat



MORE
PERFECT
UNION



https://youtu.be/jjkaYyysYhA?si=_6brIkmJmvprhEIe

MORE
PERFECT
UNION

Source: Google

https://youtu.be/YN6BEUA4jNU?si=dPvq_Q-NT-kKuoPW

Activitat 2: Cloud Computing I Data Centers

Resolgueu el test dels videos

Activitat 3: Intel·ligència Artificial

Experimenteu amb la intel·ligència artificial. En parelles, escolliu 3 models d'IA, probeu-los, documenteu-los i expliqueu les observacions a les vostres experiències (com canvien els resultats dependent del prompt)

Ó_WEB ... index.html X ra1.html M ra1_backup.html U

Institut Pompeu Fabra

FMB0_1665

```
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        <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin>
        <link href="https://fonts.googleapis.com/css2?family=Space+Grotesk:wght@300..700&display=swap" rel="stylesheet">
        <link href="https://use.fontawesome.com/releases/v5.15.1/css/all.css" integrity="sha384-vp6vNlqFt5vVVNT3z9nTz9oZnXgqDdNtEJwVcPjyVxGqKtL" crossorigin="anonymous">
        <link rel="stylesheet" href="./styles/styles.css" />
    </head>
    <body>
        <nav class="navbar">
            <a href="index.html" class="navbar__logo">FMB0_1665</a>
            <div class="navbar__bars"><i class="fas fa-bars"></i></div>
            <ul class="navbar__menu">
                <a href="./static/RAs/ra1.html" class="navbar__menu--links">RA1</a>
                <a href="./static/RAs/ra2/" class="navbar__menu--links">RA2</a>
                <a href="./static/RAs/ra3/" class="navbar__menu--links">RA3</a>
                <a href="#" class="navbar__menu--links navbar__menu--disabled">RA4</a>
                <a href="#" class="navbar__menu--links navbar__menu--disabled">RA5</a>
                <a href="#" class="navbar__menu--links navbar__menu--disabled">RA6</a>
            </ul>
        </nav>
        <div class="hero">
            <div class="hero__container">
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                    <p class="hero__text">Curs 2025/26</p>
                </div>
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        </div>
    </body>
</html>
```

Digitalització Aplicada al Sistema Productiu

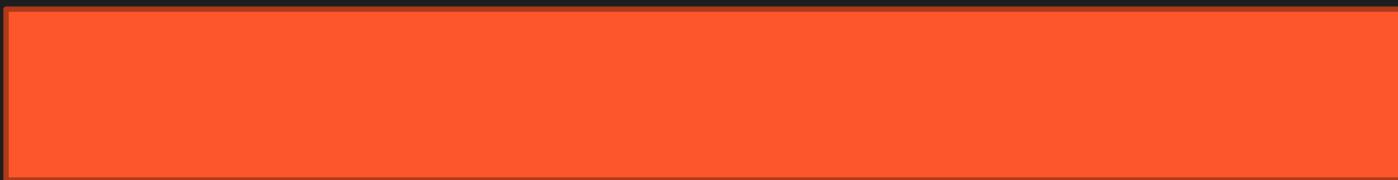
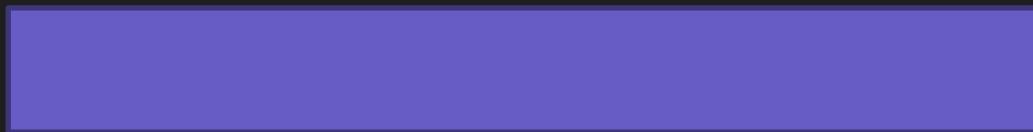
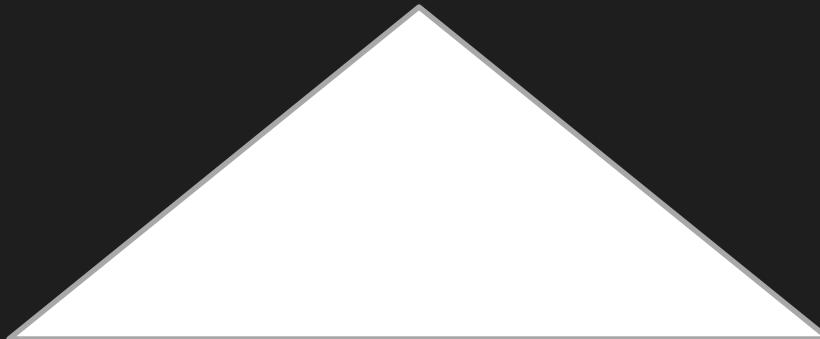
RA2 Classe 04

Tecnologies habilitadores digitals

Intel·ligència Artificial

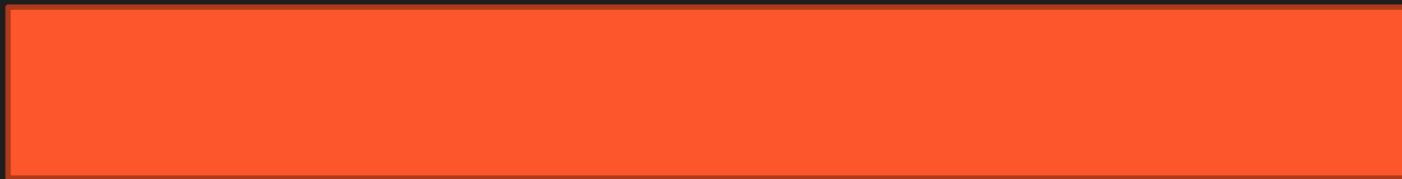
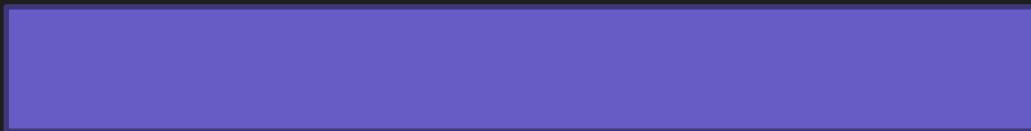
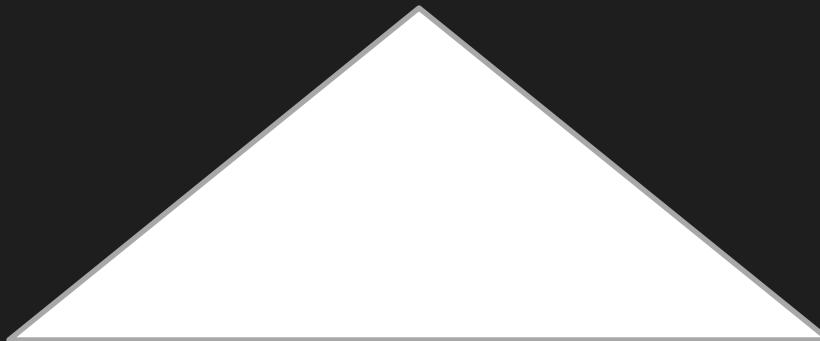
Tecnologies habilitadores digitals

DIKW



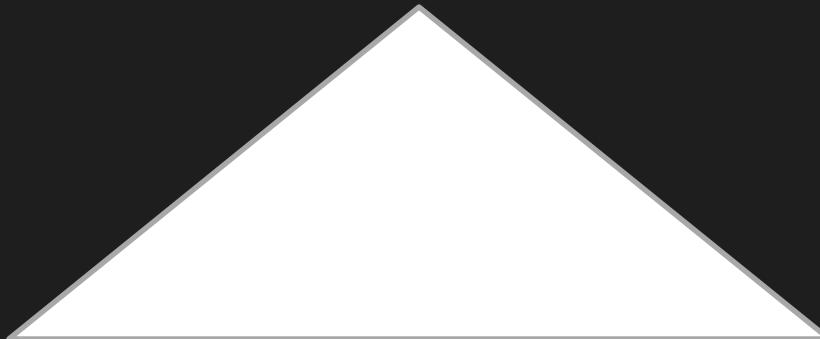
Dades 10, 6, 42, 20, 81, 5...

DIKW



Dades 10, 6, 42, 20, 81, 5...

DIKW

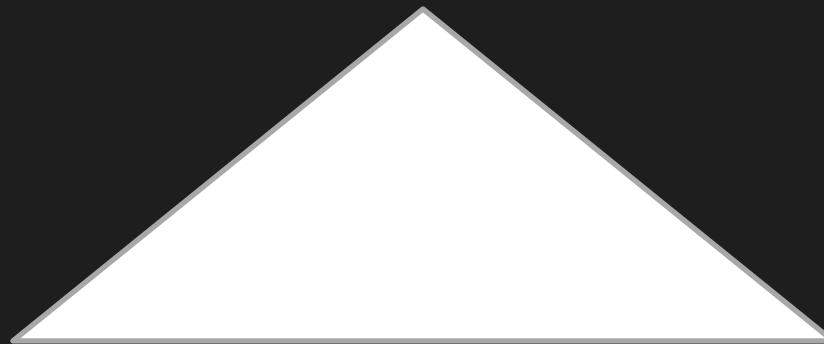


Context

Informació: Edats

Dades 10, 6, 42, 20, 81, 5...

DIKW



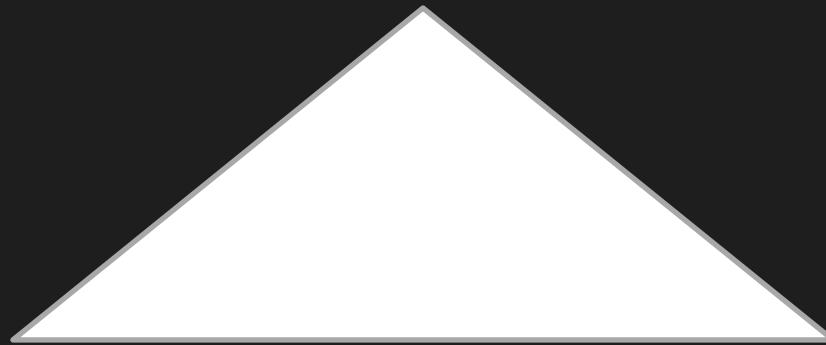
Interpretació

Informació: Edats

Context

Dades 10, 6, 42, 20, 81, 5...

DIKW



Interpretació

Coneixement: <21

Context

Informació: Edats

Dades 10, 6, 42, 20, 81, 5...

DIKW

Judici

Interpretació

Informació: Edats

Dades 10, 6, 42, 20, 81, 5...

DIKW

Judici

*Saviesa: Caldrà trobar
una pel·lícula apropiada
per menors de 21*

Interpretació

Coneixement: <21

Context

Informació: Edats

Dades 10, 6, 42, 20, 81, 5...

IA (Intel·ligència Artificial)



IA (Intel·ligència Artificial)

ML (Machine Learning)



IA (Intel·ligència Artificial)

ML (Machine Learning)



IA (Intel·ligència Artificial)

ML (Machine Learning)



IA (Intel·ligència Artificial)

ML (Machine Learning)

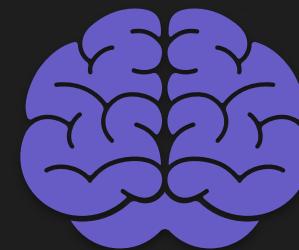
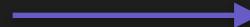


IA (Intel·ligència Artificial)

ML (Machine Learning)

DL (Deep Learning)

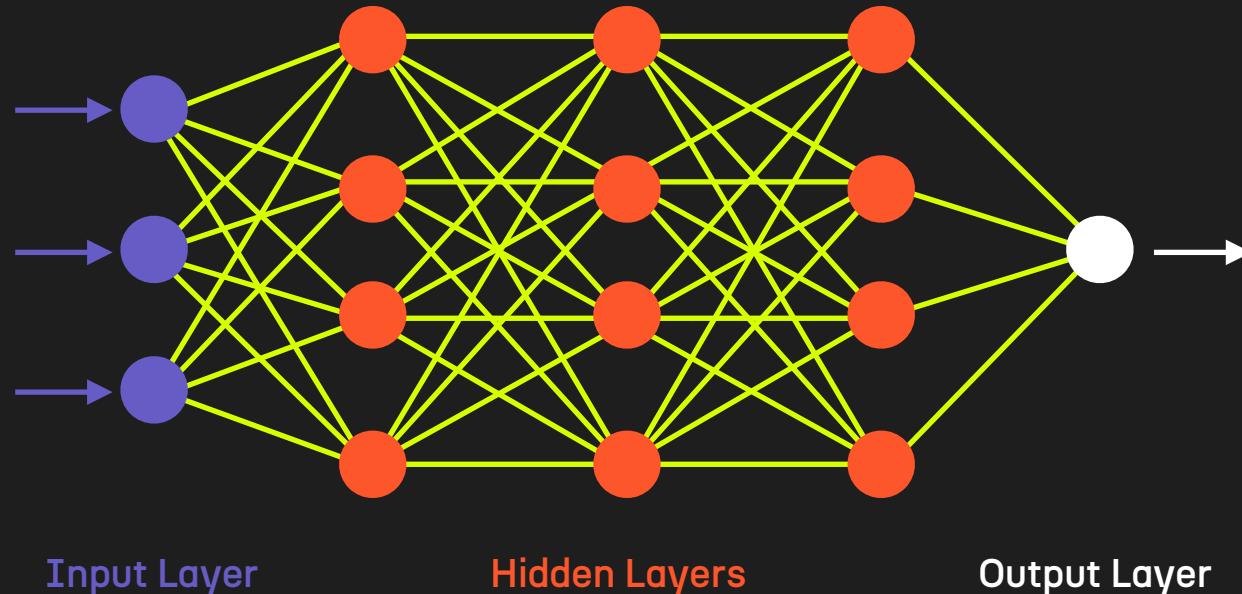
NN (Neural Networks)



IA (Intel·ligència Artificial)

ML (Machine Learning)

DL (Deep Learning)



IA (Intel·ligència Artificial)

ML (Machine Learning)

DL (Deep Learning)

FM (Foundation Models)

LLM (Large Language Model)

IA (Intel·ligència Artificial)

ML (Machine Learning)

DL (Deep Learning)

FM (Foundation Models)

0,05

Londres

0,85

Lisboa

0,1

Madrid

LLM (Large Language Model)

La capital de Portugal és

IA (Intel·ligència Artificial)

ML (Machine Learning)

DL (Deep Learning)

FM (Foundation Models)

Text Models

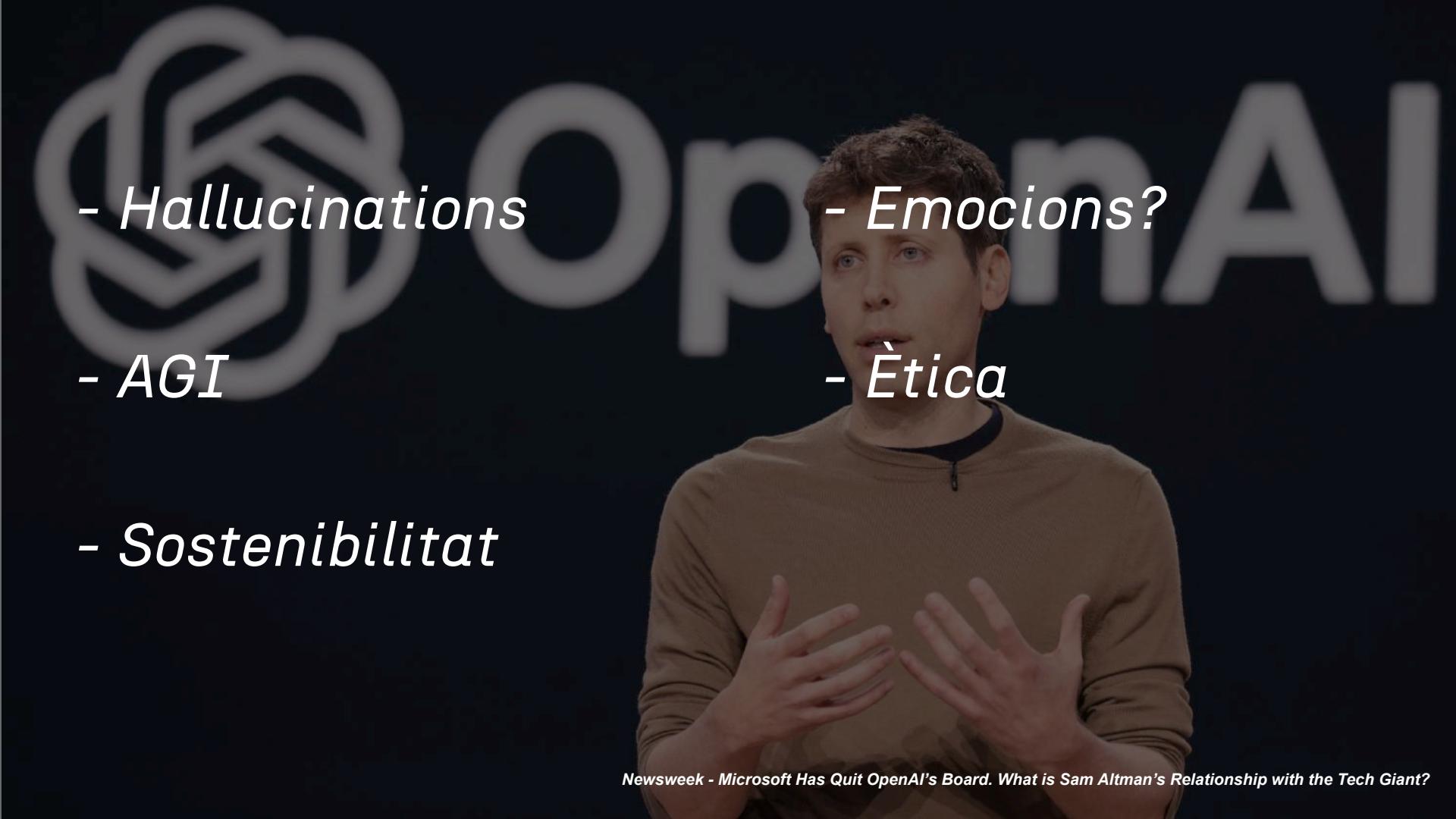
Video Models

Music Models

Image Models



Midjourney

A photograph of Sam Altman, CEO of OpenAI, speaking at a podium. He is wearing a brown long-sleeved shirt and gesturing with his hands. The background features the large, illuminated OpenAI logo. On the left side of the image, there is a vertical list of bullet points in white text.

- Hallucinations

- AGI

- Sostenibilitat

- Emocions?

- Ètica