Open Hardware Canvas

This is a beta version, check github.com/ohwmakers/ohcanvas for updates

Project: **3D FlexML**

Assembly Instructions

Does you project need them? How will you deliver them?

Instructions required:
- How to build the test sensor
-Wiring diagram
- Video of how it works?

Bill of Materials

When possible, list materials that are easily accessible worldwide. Add supplierers and costs

Parts:
-3D Filament
-Arduino Nano 33 BLE
-Wires
-Resisitors

Software List or provision of database

Key Propositions

A clear message stating what your project has to offer

3DFlexML: Adaptive, Intelligent, and Open FlexML is an open-source platform that combines 3D-printed flexible conductive sensors with TinyML-powered intelligence to create adaptable, real-time sensing solutions. Designed for limitless customisation, FlexML allows users to print sensors in any form—whether for wearables, robotics, or interactive surfaces—while leveraging embedded machine learning to interpret touch, bend, and pressure inputs. By enabling low-power, on-device AI, FlexML empowers innovators across industries to develop smarter, more responsive, and fully personal-ised applications.

Your Contributors

Describe them in a few words

People who see potential in the idea of creating custom flexible sensors.
Industries

Your Users

Describe them in a few words

Sensors could be used in:
Healthcare
Sport
Entertainment
Etc
Imagination and flexibility allows the design to be used for lots of areas so the user range could be vast.

Source Files

Which files will you share in which format?

CAD files and 3MF project files for 3D prints.
Vector files for circuit diagrams.
Text based instructions.

Licenses and Standards

Which license will you apply to which components? How will you make your project findable?

Project Components

Electronics, Software, Design, Content, Data?

3D prints, Electronics, TinyML data-base/s,

Contributor Channels

How are you going to reach your contributors?

Currently looking at Github
or forums such as Hackaday.

User Channel

How are you going to reach your users?

Github
Create research collaboration through outreach.

Resources Required

Which resources (skills, infrastructure, materials, finances, access) do you need to make your idea work?

3D Printer
Arduino - knowledge of wiring and coding
to have an understanding of how to train TinyML models.

Similar Projects

How do other address a similar problem? Add links to similar projects

Currently unknown.
There are highly advanced systems such as:
e3-skin
https://medtigo.com/news/3d-printed-e3-skin-rede-fines-wearable-health-monitoring/

But nothing on an open source level.

Contributor Docs

Which docs do your contributors need?

User Docs

Which docs do your users need?

Assembley instructions

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