Hi every One ☺

Let make a vibrate detection with HDX Vibration Sensor and Esp32 and NanoFramework!

HDX Vibration Sensor is little sensor for vibrate detection

Pic1

You should put that in true direction. Otherwise it will not work properly! (its direction is vertical)

You can find its direction with voltmeter. Set voltmeter on diode mode then put voltmeter wire on HDX pins after that you must shake HDX. Now you must hear Disconnect and reconnect sequence sound.

Pic2

Ok now we must connect HDX to board (esp32).

Pic3

Here I connect HDX to GPIO 21.

You must install nanoframework on your device

Link

Ok everything is ready to develop ;-)

I develop a package for vibration sensor. currently my package only support HDX sensor.

(maybe I will add another sensor to this package)

Link2

Unfortunately, I couldn’t Publish this package as nugget package (it has exception when is try to publush it as nugget package) so you should download source from github and add that to your project.

Ok now let developing

Open Gpio (here is 21)

Set it as input

Set gpio eventhandler

\_shockDetection = s\_GpioController.OpenPin(\_pinNumberShockDetection);

\_shockDetection.SetDriveMode(GpioPinDriveMode.Input);

\_shockDetection.ValueChanged += \_shockDetection\_ValueChanged;

private static void VibrationObject\_InvokeEvent(object sender, EventArgs e)

{

Debug.WriteLine("Vibrate!!!!!!");

}

Add package to your project

pic

Create instance from package

vibrationObject = new AP.NanoFrameWork.Vibration.HDX();

set Threshold. (default is 15)

vibrationObject.Threshold = 20;

set event handler

vibrationObject.InvokeEvent += VibrationObject\_InvokeEvent;

now in gpio valuechange event handler pass gpio status to package

private static void \_shockDetection\_ValueChanged(object sender, GpioPinValueChangedEventArgs e)

{

vibrationObject.AnalyseSignal(e.Edge);

}

Full code:

Pic

Ok run project and enjoy