# Wireless Monitoring of Neonates to Promote Neurological Wellness

ESTRELLA MOUNTAIN COMMUNITY COLLEGE
A MARICOPA COMMUNITY COLLEGE

SenSIP
Sensor, Signal and Information Processing Center

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## RESEARCH PROJECT

Identify neurological conditions during the first few hours after birth.

**WHY WIRLESS?**

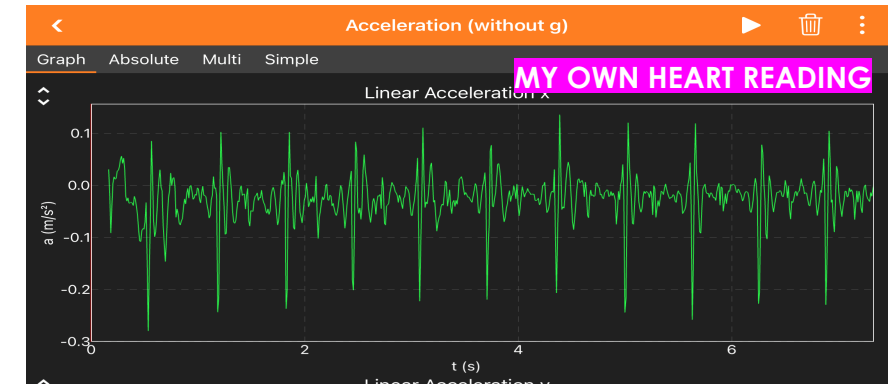**FLEXIBILITY!**

Skin to skin bonding

Monitor anywhere

### OBJECTIVE

- Write a program to capture and store wirelessly transmitted data from sensors to a computer.

- Learn/use Visual Studio and C#

## CLASSROOM APPLICATION

- Students will gain basic understanding of embedded sensors

- I will showcase my SenSip project to students

Students will use Phyphox App & their own smartphones to record their heartbeats

Acceleration (without g)

Graph | Absolute | Multi | Simple

MY OWN HEART READING

Linear Acceleration x

a (m/s²)

0.1

0.0

-0.1

-0.2

-0.3

0      2      4      6

t (s)

Linear Acceleration y

Students will use Tinkercad to create a 3D version of their ECG & 3D Print it in the Makerspace