**Mansoura university  
faculty of computers and information   
department of bioinformatics   
 project proposal   
-جهاز للمساعده في الكشف المبكر لسرطان الثدي  
-early breast cancer detection-device**

submitted by :

|  |  |  |
| --- | --- | --- |
| May Rizk ibrahim | mairizk99@gmail.com | Sec 3 |
| May allaa abo ghanem | mayalaa881@gmail.com | Sec3 |
| Hala hamdi el said mohamed | hamdiihala12@gmail.com | Sec 1 |
| Esraa Mahmoud shalaby | Esraa.shalaby77@gmail.com | Sec3 |
| Ayatollah elghali assran | ayahelghaly@gmail.com | Sec1 |
| Reham fekry abass | rehamfkry@gmail.com | Sec1 |
| Rewan Samir | Samirrewan335@gmail.com | Sec3 |
| Hajar Mohamed elsharawe | Hajr.mohamed195@gmail.com | Sec3 |

* project Abstract :
* A device that helps in breast tumor/cancer early detection
* project objective :
* In breast tissue if there is a tumor , due to uncontrolled cell division blood flow to the tumor increases that leads to rise the temperature around it . With embedded temperature sensors in the device it helps to detect any change in tissues temperature this gives us a sign to take the second phase to check provisional diagnose
* WHOW ARE THE PROJECT COMPATITIVE? AND HOW WILL YOUR PROJECT BE DIFFERENT?
* C0MPETITIVE : Bahia hospital mammogram exam or any regular breast cancer examination
* Difference : More affordable availability
* avoiding mammogram suffering pain and dangerous radiation
* we may helping in diagnose using machine learning , AI , image processing

TOOLS :

SOFTWARE :   
-Arduino IDE

HARDWARE :

-Arduino circuit , heat sensor , lcd display ,Breadboard , jumper wires ,cable

* - LITERTURE REVIEW :
* 1.EVA bra
* 2.Itbra

- REFERENCES :

[/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6164870/)

https://www.healthline.com/health/breast-cancer/thermography

https://www.researchgate.net/publication/223303130\_Detection\_and\_classification\_of\_breast\_cancer\_using\_neural\_classifiers\_with\_first\_warning\_thermal\_sensors

https://blogs.cisco.com/innovation/with-early-cancer-detection-iot-saves-more-than-money-it-can-save-lives

https://parentology.com/teen-invents-bra-to-help-detect-breast-cancer/

* *SCHEDULING PHASES*

|  |  |  |
| --- | --- | --- |
| **ACTIVITY** | **FROM** | **TO** |
| PROJECT PROPOSAL | 3 / 9 | 8 / 9 |
| PREPARING TOOLS | 11/10 | 17/10 |
| CODING | 18/10 | 24/10 |
| IMPLEMENTATION | 25/10 | 31/10 |
| TESTING | 1/11 | 7/11 |
| EVALUATION | 8/11 | 14/11 |