WEARABLE CIGARETTE SMOKE SENSOR

GROUP 4
CASE STUDY

• Mama Bukky owns a bar and has run it for over 15 years
  • She has made a lot of money from the business.
  • Specialized in cooking, serving pepper-soup, peppered meat and alcohol.
  • Her customers are also heavy smokers.

• One day, she slumped while serving her smoking customers
  • And was diagnosed with Lung Cancer
  • She was a passive smoker, being around smokers all the time
GOAL

• A wearable device that:
  • Notifies the user when cigarette smoke gets too much.

• The goal is to reduce the number of casualties to passive smokers.
STATISTICS

According to the World Health Organization, worldwide approximately 5 million people die yearly from smoking. In the United States the number of smoking-related deaths from 2000 to 2004 was 443,000, of which 49,000 were estimated to be from secondhand smoke.

sharecare
FLOW PROCESS

- DESIGN THINKING
- MAKE ELECTRONICS
- MAKE WEARABLE
- PACKAGING
- FINAL TESTING
ARDUINO CODE FLOW

START (POWER UP ARDUINO) → INITIALIZATION, DECLARATION AND SETUP → SMOKE SENSOR CHECKS FOR SMOKE LEVEL

- IS SMOKE LEVEL ABOVE THRESHOLD?
  - NO → LOG TIME AND SMOKE LEVEL IN SD CARD
  - YES → BEEP THE BUZZER

- GET TIME FROM RTC (REAL TIME CLOCK)
DELIVERABLES

1. Smoke detection
2. Logging time in SD Card
3. Combining 1 and 2
4. Testing for and fixing bugs
5. Allowing 3rd party to test
6. Start working on packaging
7. Sowing, Gluing, Cutting, .......
8. Bringing everything together
THANK YOU