KAVACH

Voice-Activated Safety Device

Empowering Personal Safety with Technology

Why Personal Safety Matters

The importance of personal safety in modern society
- The rising need for innovative safety solutions
- Statistics on the increase in personal safety concerns

Solution: A Voice-Activated Safety Device

- Voice-activated safety features
- Combines multiple safety technologies into one wearable device
- Accessible and easy to use in emergencies

The Tech Behind the Device

- **Arduino Nano/Node Mcu:** The brain of the device
- Nrf module: making: for wireless signal transfer
- **Voice Recognition Module:** Hands-free safety activation
- **GPS Module:** Tracks real-time location
- **GSM Module:** Sends location and emergency messages
- **Camera Module:** Captures images or video during incidents
- **Microphone:** Records audio for evidence
- **Shock Module:** Delivers a self-defense electric shock
- **Pepper Spray Module:** Deters attackers at close range

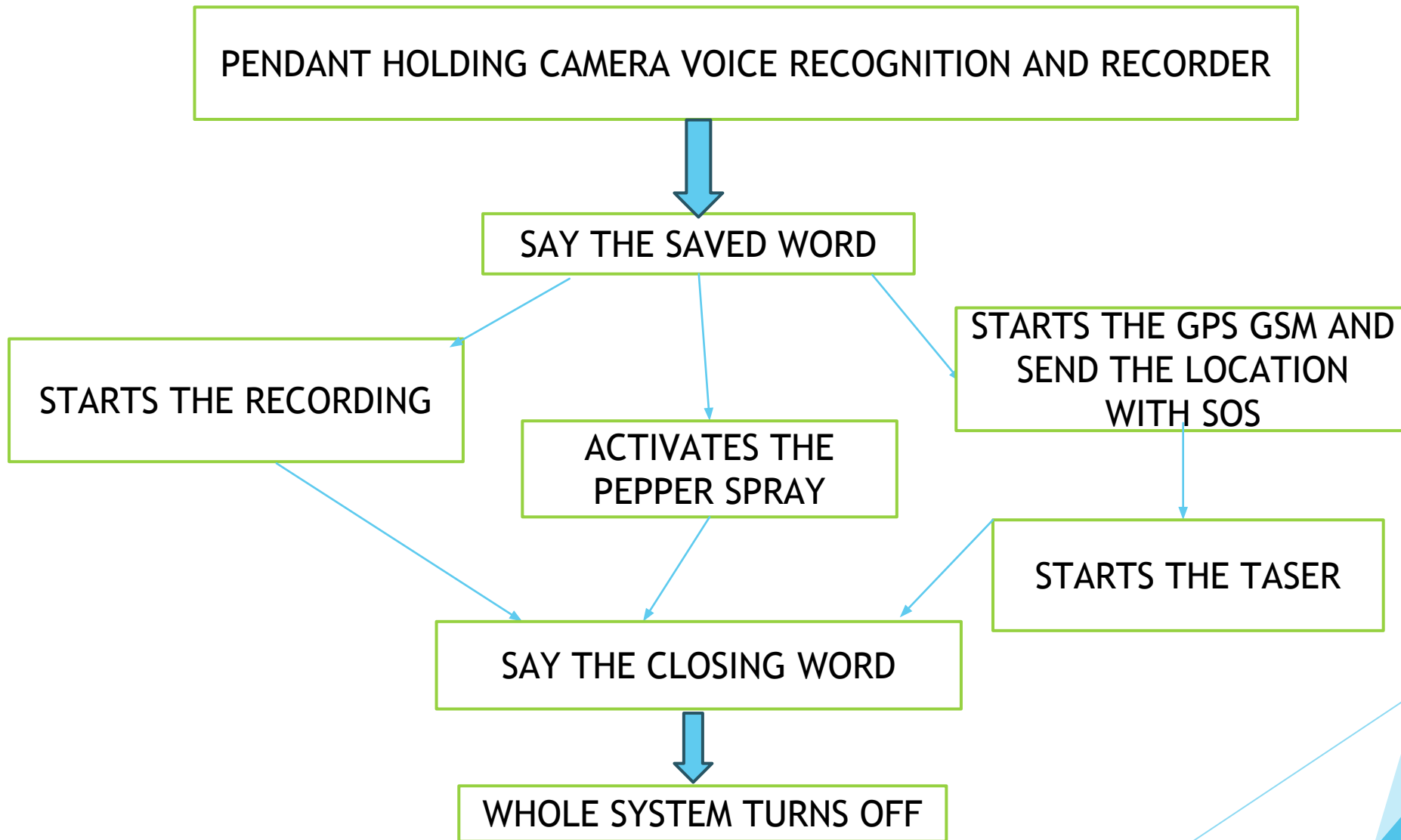# *A Seamless Safety Experience*

STEPS TO
Step 1: Voice command activation
Step 2: Automatic GPS tracking and GSM alert
Step 3: Camera and voice recorder captures surroundings and audio
Step 4: Shock and pepper spray modules are deployed for self-defense

WORKFLOW/ARCHITECTURE

PENDANT HOLDING CAMERA VOICE RECOGNITION AND RECORDER

SAY THE SAVED WORD

STARTS THE GPS GSM AND SEND THE LOCATION WITH SOS

STARTS THE RECORDING

ACTIVATES THE PEPPER SPRAY

STARTS THE TASER

SAY THE CLOSING WORD

WHOLE SYSTEM TURNS OFF

Key Features Breakdown

- **Voice Recognition:** Quick and reliable safety activation with pre-set commands.
- **GPS & GSM Communication:** Sends the wearer's location to pre-set emergency contacts.
- **Camera & Audio Recording:** Collects visual and audio evidence in real-time.
- **Self-defense Mechanisms:** Shock module and pepper spray ensure last-resort protection.

Compact and Wearable

- Lightweight design for everyday use
- Sleek, modern look that can be worn discreetly
- Built with durable materials for outdoor conditions

Real-World Applications

- Personal safety while traveling
- Protecting vulnerable populations (students, elderly)
- Emergency response for outdoor adventurers
- Security personnel in high-risk situations

Fast Response in Critical Situations

- Device activation in under 2 seconds
- Automatic emergency contact alerts
- Self-defense deployment in real-time
- No complex controls or interfaces – just voice

Overcoming Development Challenges

- **Integrating multiple sensors and modules into one device**
- **Ensuring reliable voice recognition even in noisy environments**
- **Power consumption management for long battery life**
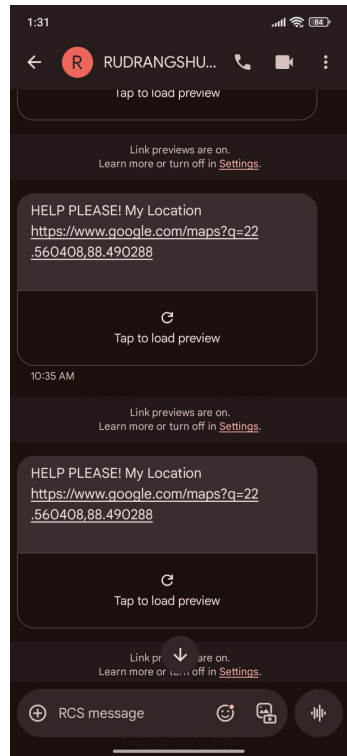- **Compact design without compromising functionality**

Looking Ahead

- **Adding more sensors like heart rate monitoring**
- **Integrating AI for automatic danger detection**
- **Increasing battery efficiency**
- **Exploring partnerships for mass production and commercialization**

CURRENT PROGRESS

GPS+GSM SENDING LOCATION

CAMERA AND VOICE

TASER

GITHUB: https://github.com/RUDRANGSHU2004/KAVACH.git

VIDEO OF THE CURRENT SITUATION OF THE PROJECT:

Conclusion

Empower Safety, Anytime, Anywhere
- **Impact on personal safety**
- **The future of safety technology**

- **THANK YOU FOR VIEWING OUR PROJECT**