



INTRODUCTION

SOLUTION

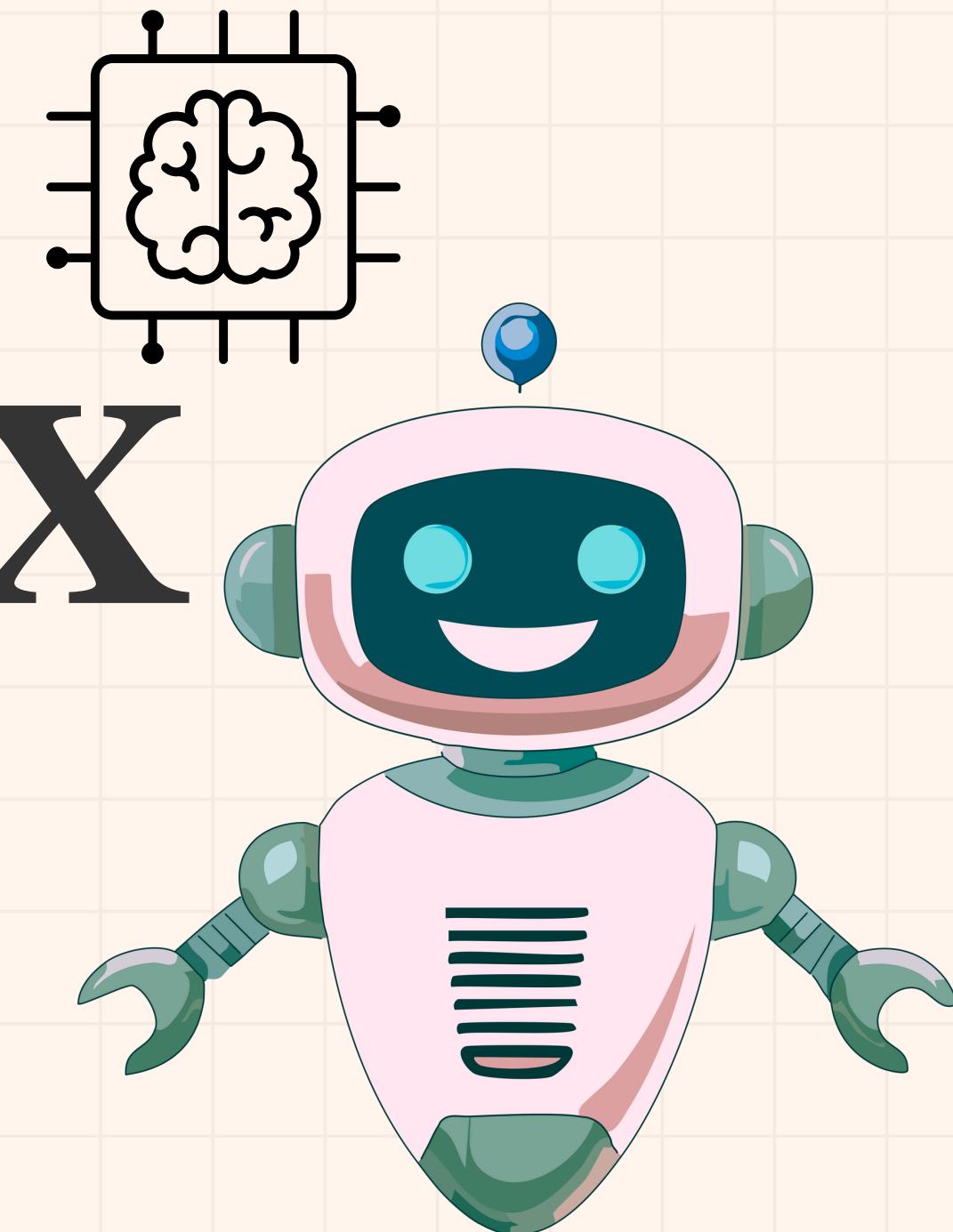
FEATURES

ANALYSIS

# INTRA-PRODEX

## PRO-TAG

Team - 2





# PROBLEM STATEMENT

The problem of losing or misplacing keys (and other small essential items) is a common and frustrating problem for individuals.

**Wastage of Time:** Searching for misplaced keys can be time-consuming.

**Security Concerns:** Sometimes, lost keys or any essential item can pose a security risk.



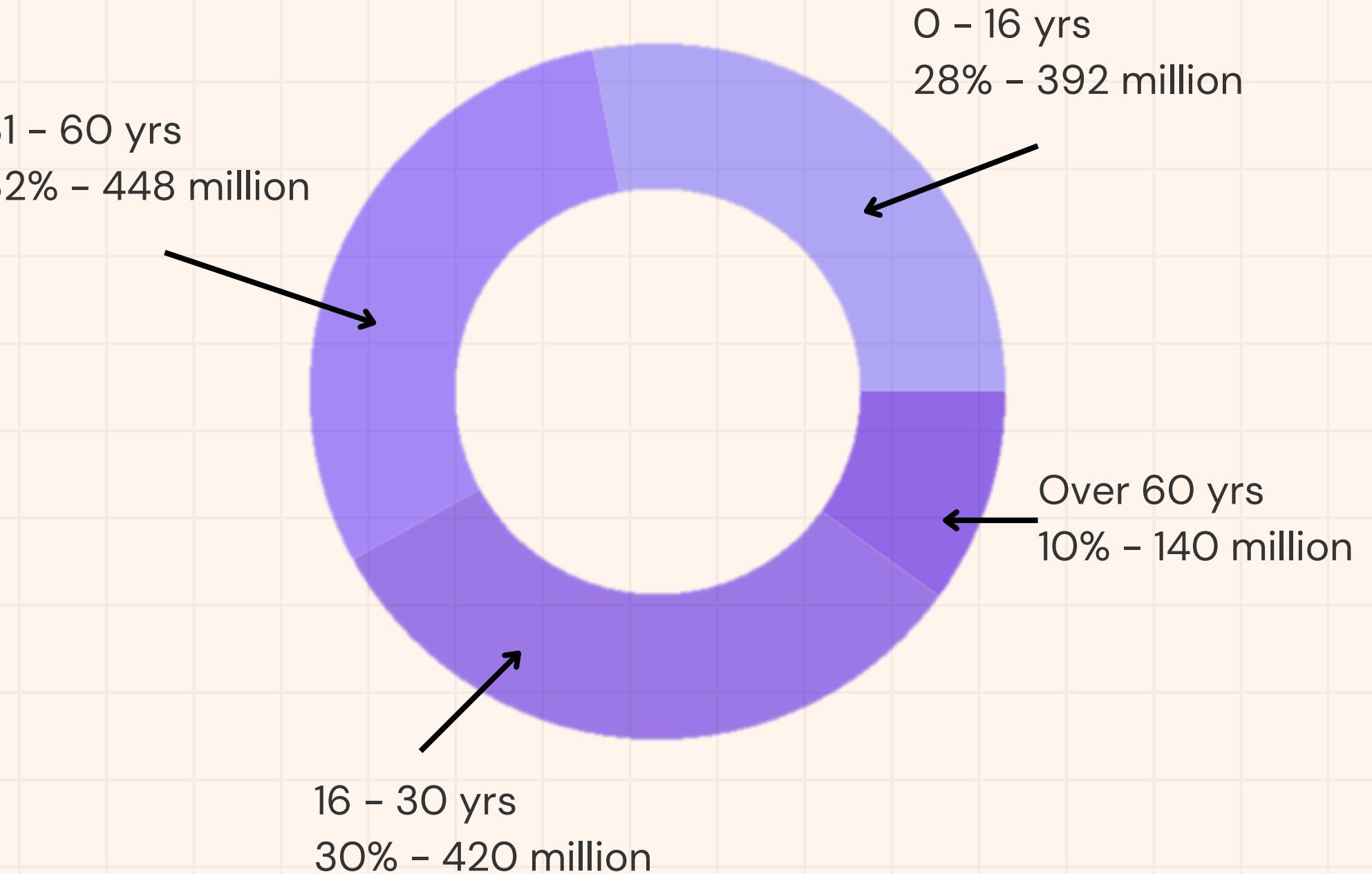


# MARKET ANALYSIS

- 30% of 1,739 people recently admitted to being "careless". 52% admitted misplacing their wallets, 49% have lost important items.
- We Indians spend ~15 minutes/day searching for misplaced items.
- Also, India has 140 million elderly people out of which 23.4% live independently and 103.6 million face memory loss problems.

-TIMES OF INDIA->[LINK](#)

## AGE DISTRIBUTION IN INDIA





# EXISTING SOLUTIONS



## AIRTAG

- **Limited compatibility** as it works best with Apple devices.
- Can raise **privacy concerns** if misused for stalking.
- *Require phone interaction.*



## JIOTAG

- Not wearable and has no direct vibration alert.
- *Require phone interaction.*





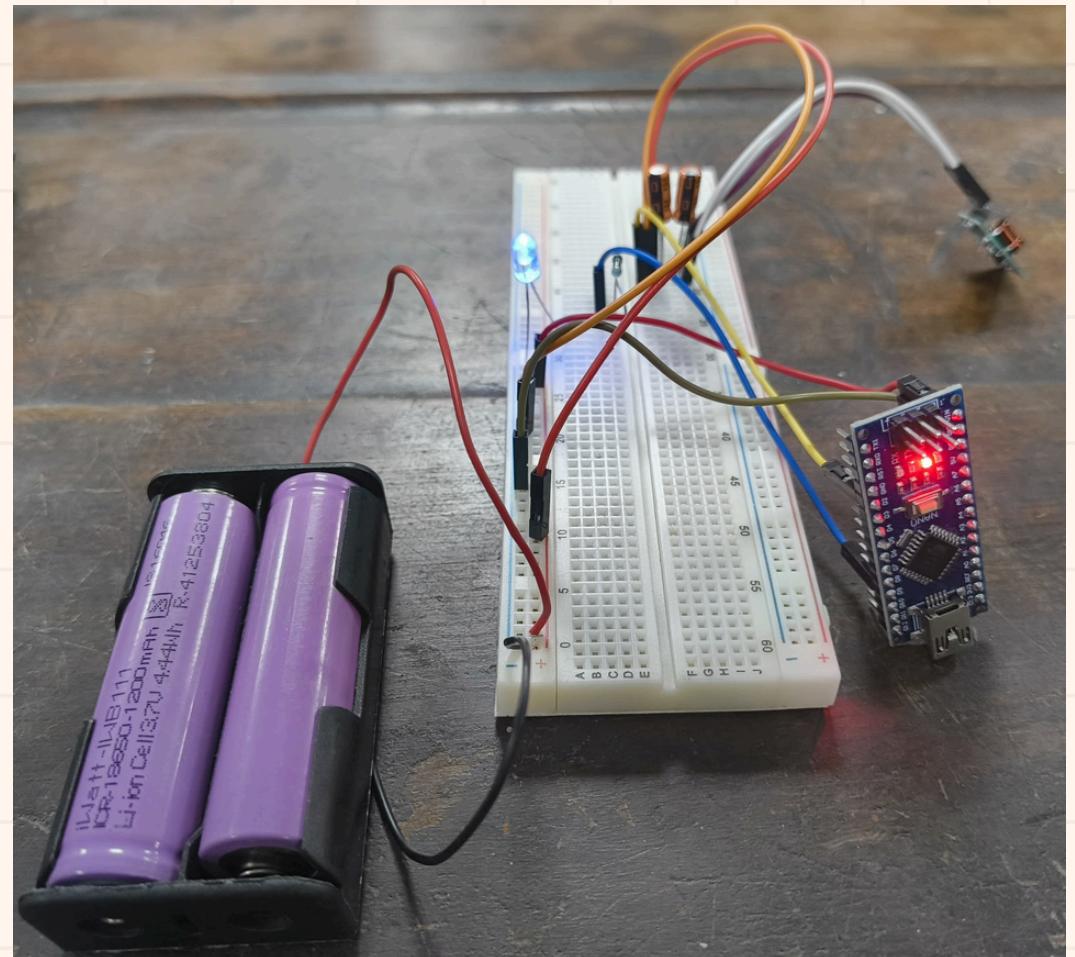
# OUR SOLUTION !



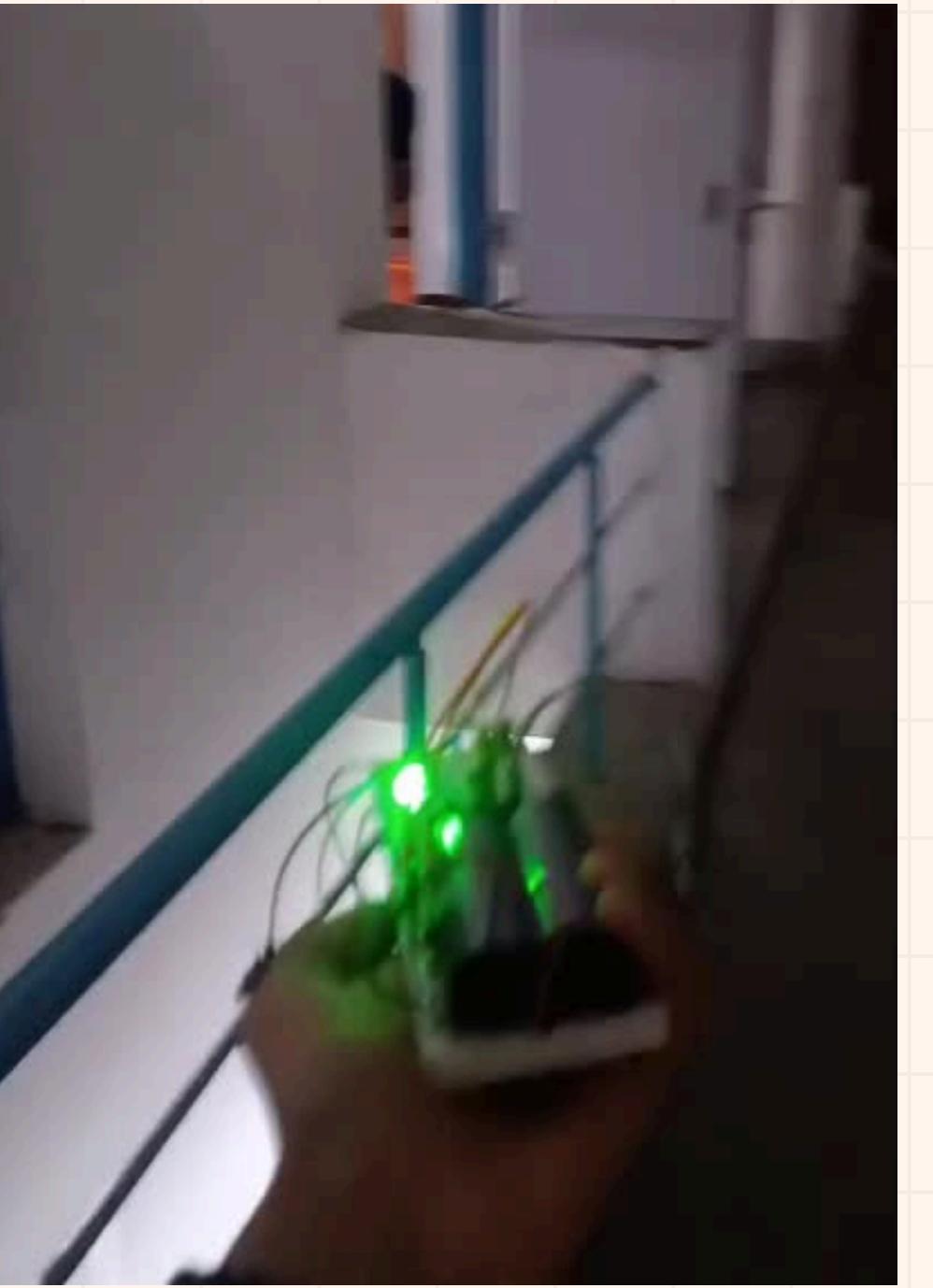
The proposed solution involves developing an affordable **hand band** and a **key chain**. The band will incorporate a "disconnect alert" vibration when the user is separated from their essentials.



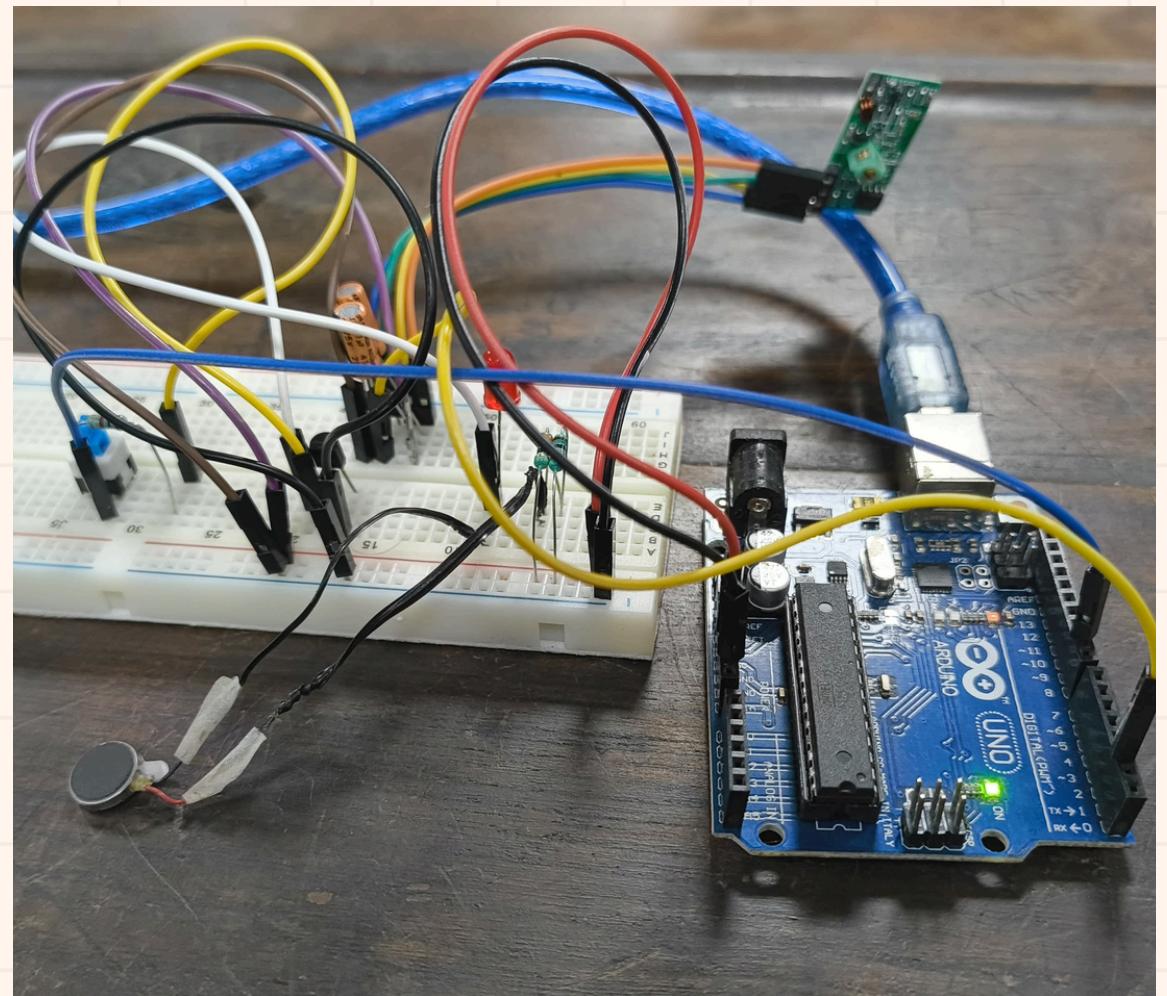
# PROTOTYPE



**Keychain  
(Transmitter)**



**Demonstration**



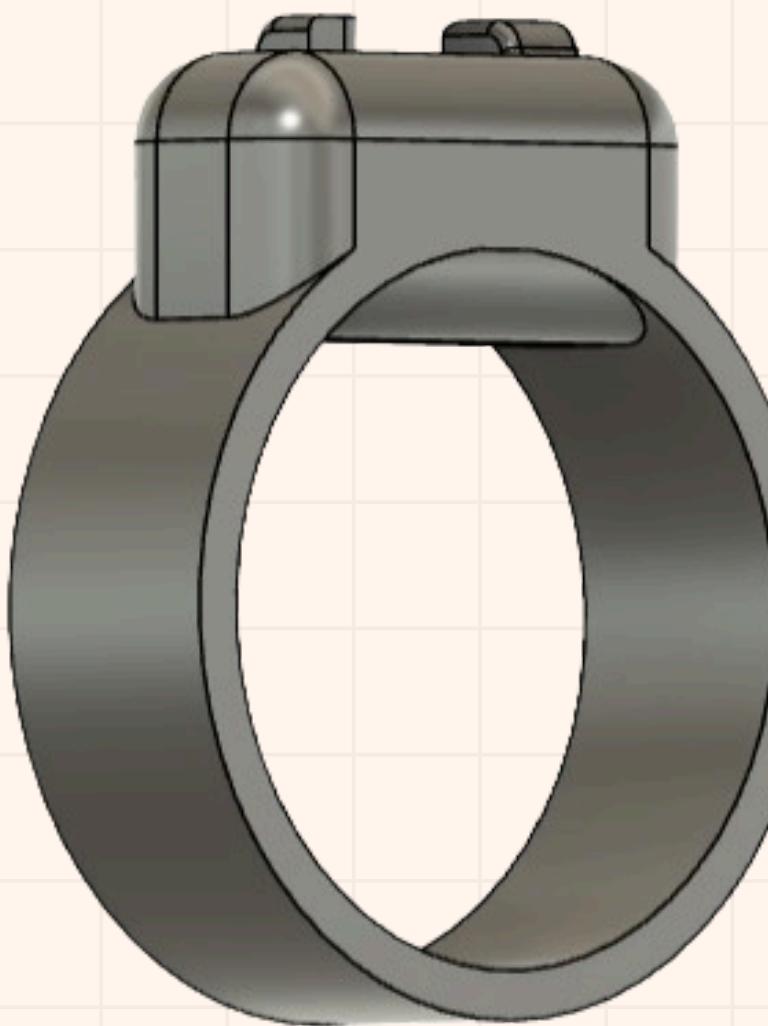
**Handband  
(Receiver)**



# MODEL



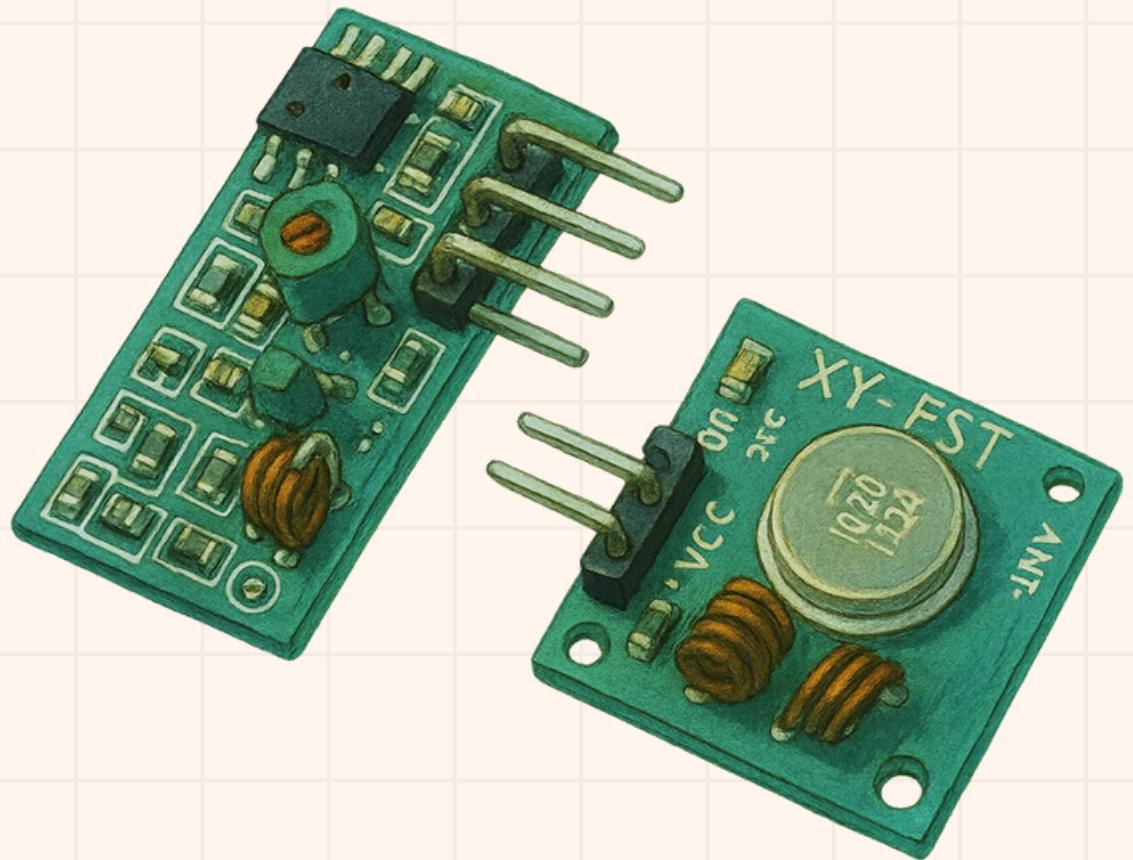
**Keychain**



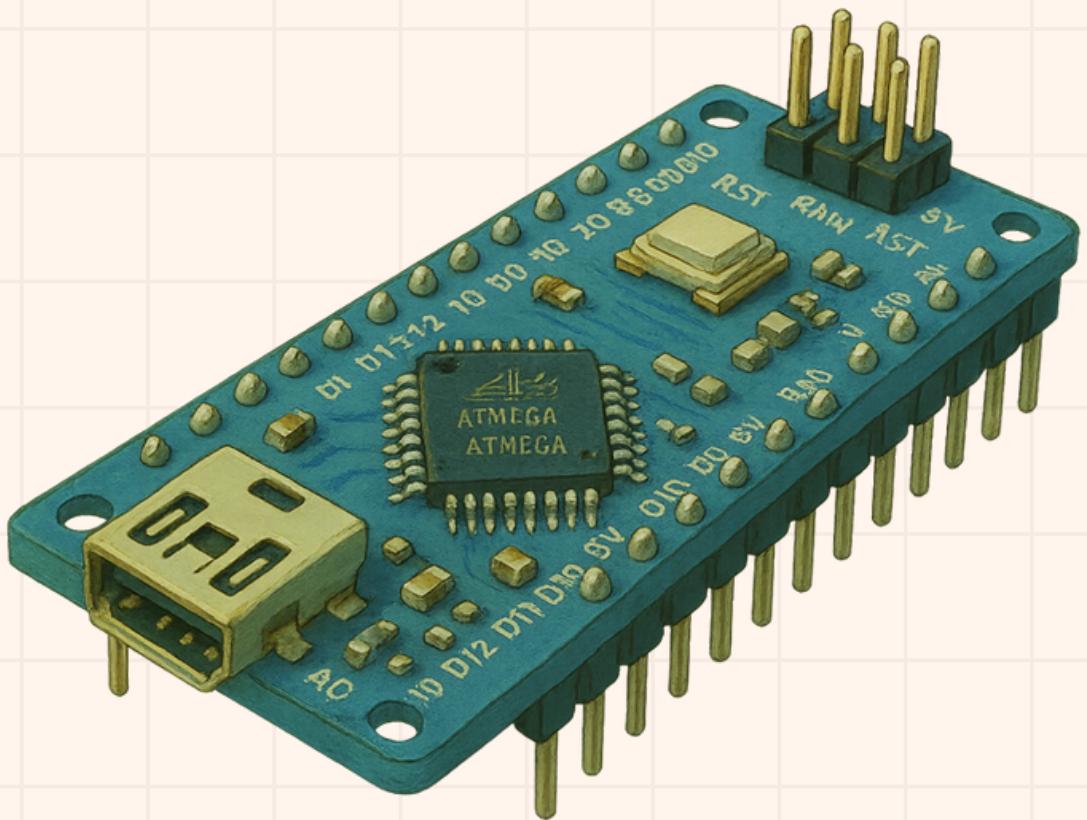
**Handband**



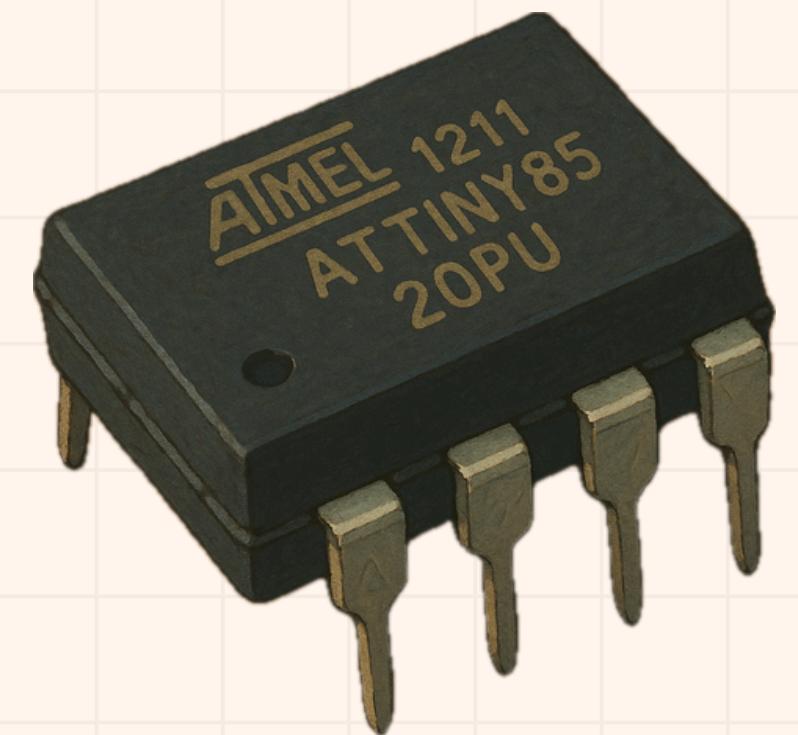
# HARDWARE COMPONENTS



**RF TRANSMITTER AND  
RECEIVER**



**ARDUINO NANO**



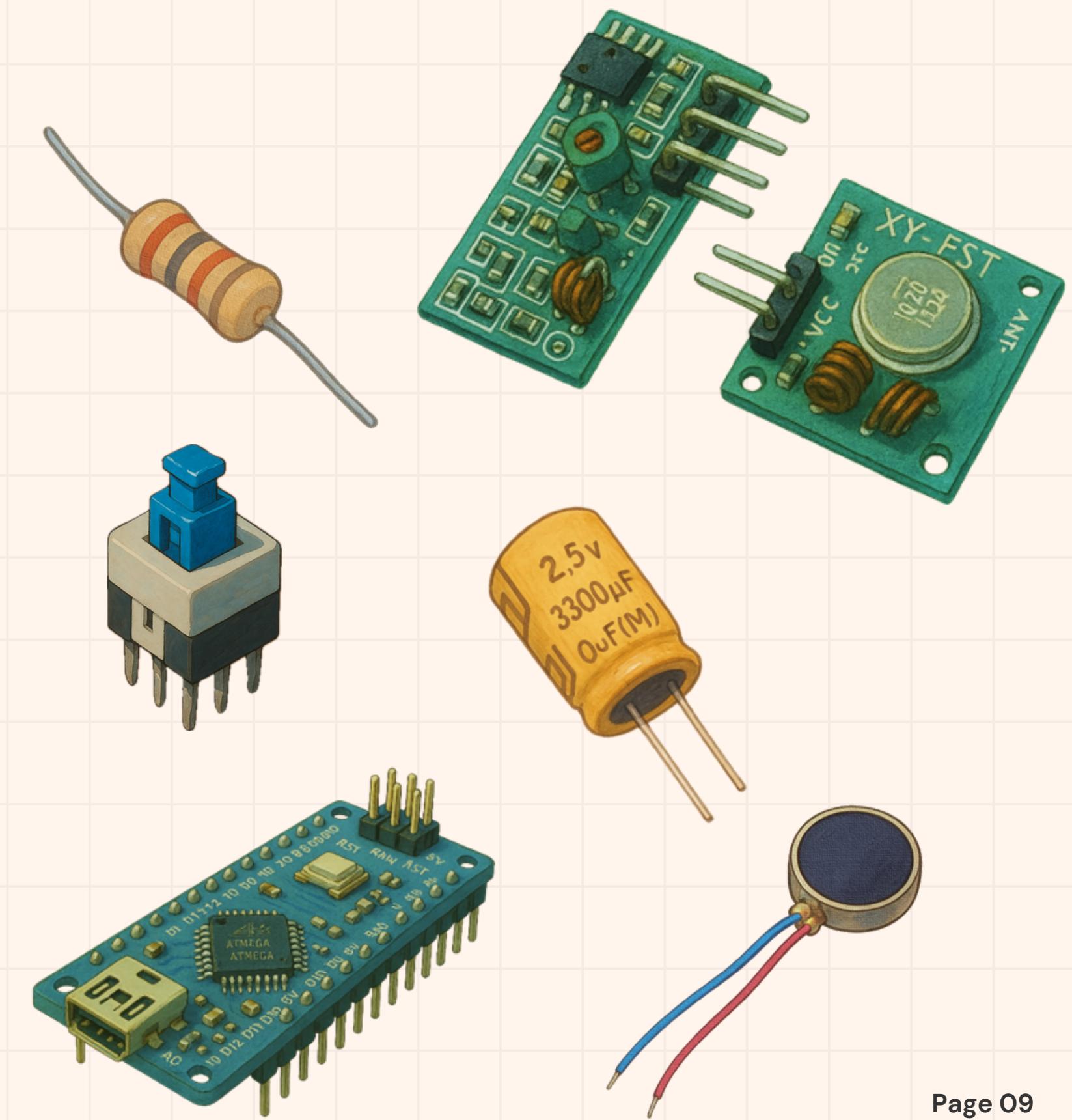
**ATTINY85**

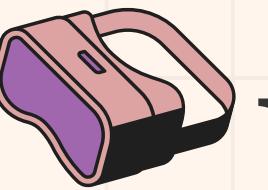


# COST ANALYSIS

- Batteries(2) - ₹200
- Vibration Motor- ₹50
- Microcontroller(2) - ₹500
- RF Transmitter and Receiver - ₹100.
- Push Button - ₹12
- LEDs(2) - ₹20
- Miscellaneous - ₹87

**TOTAL COST = ₹969**





# KEY FEATURES

## ACCESSIBILITY

Doesn't require Internet or Mobile Phones. Thus both **iOS** and **Android** users can use.

## SIMPLE DESIGN

The concept is simple, a band and a keychain, making it easy to manufacture and use.  
**User Friendly.**

## CUSTOMIZABLE

Length of the antenna can be adjusted, i.e., threshold distance can be set according to user.



# FUTURE CONSIDERATIONS



## RECHARGEABLE

Currently we are using Batteries which are needed to be replaced periodically which could be changed to a rechargeable setup.

**Rechargeable!**

## MORE FEATURES

Adding a buzzer to the keychain for serving additional purposes. The **buzz sound** will be user controlled.

## SIZE

Make it Smaller.

**Size Matters!**



# NOVELTY

## COST-EFFECTIVE

It is cheaper than Jiotag and Airtag

## VIBRATION ALERT

Sends an alert when separated from object

## INDEPENDENT

Operates without any phone interaction

## TECH

Uses RFID technology which is viable

## CONTROL

User-controlled pushbuttons for vibration

## SCOPE

Global proximity sensor market is growing rapidly,



# THANK YOU

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