

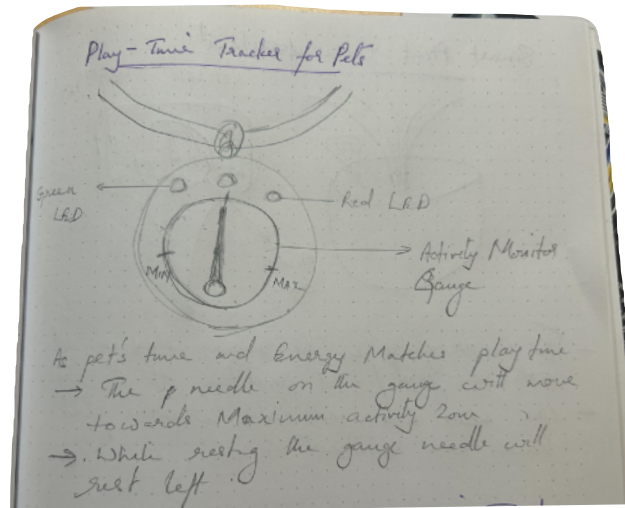
# Project Idea 1: Play-Time Tracker for Pets

## Short Description of Idea

Tracks a dog's activity using motion and temperature sensors and indicates when more playtime is needed via an activity gauge and LED indicators.

## Early Thoughts on Technical Details:

- Wireless: Bluetooth/WiFi for data transfer between sensing and display devices.
- Sensors: Uses temperature and IMU sensors
- Power: Rechargeable battery for sensing device; USB charging for display.
- Processing: DSP to filter motion data, ML to recommend playtime based on activity patterns.



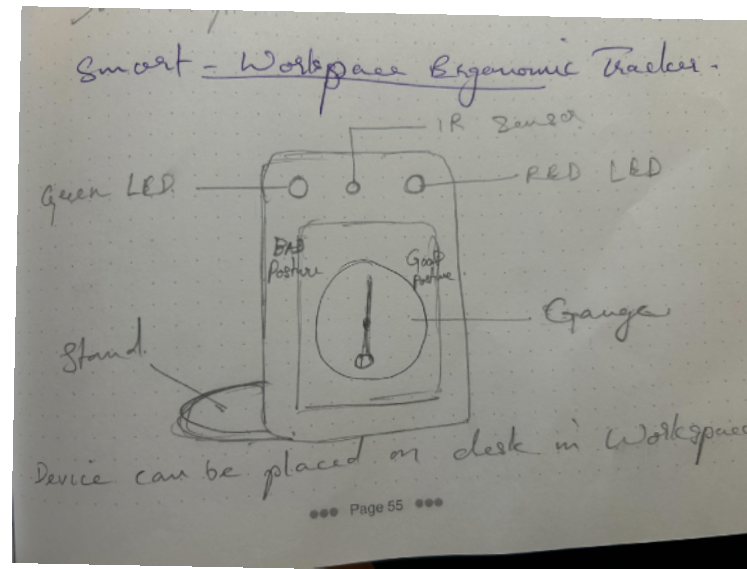
# Project Idea 2: Smart Workspace Ergonomics Tracker

## Short Description of Idea

Monitors desk posture and ambient lighting to improve workspace ergonomics and productivity, providing visual feedback and break reminders.

## Early Thoughts on Technical Details:

- Wireless: Bluetooth for communication between sensors and display.
- Sensors: Can use Infrared sensors IMU sensor
- Power: Rechargeable battery for sensing device; USB charging for display.
- Processing: DSP for analyzing motion and light data; ML for posture correction.



# Project Idea 3: Smart Plant Care Assistant

## Short Description of Idea

Monitors soil moisture, light, and temperature to ensure optimal plant health, providing actionable feedback via an intuitive display.

## Early Thoughts on Technical Details:

- Wireless: BLE for sensor data communication to display device.
- Sensors: Temperature, Humidity/Moisture and Ambient light sensor
- Power: Rechargeable battery for sensing device; USB charging for display.
- Processing: DSP for filtering sensor data; ML to predict watering schedules based on environmental conditions.

