

MURATHAN SERTEL

INDUSTRIAL DESIGNER

PORTFOLIO

2025



PERSONAL

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LANGUAGE

TURKISH (NATIVE)

ENGLISH (B2)

ITALIAN (A2)

HELLO!

I AM MURATHAN SERTEL, AN INDUSTRIAL DESIGNER FOCUSED ON INNOVATIVE AND USER-CENTERED SOLUTIONS. MY PROJECTS BLEND AESTHETICS, FUNCTIONALITY, AND SUSTAINABILITY TO CREATE VISUALLY PLEASING AND PRACTICAL PRODUCTS. FOR ME, DESIGN SIMPLIFIES AND ENRICHES LIFE, SO I PRIORITIZE USER EXPERIENCE TO IMPROVE DAILY LIVES, MEET NEEDS, AND INSPIRE USERS.

EDUCATION

MASTER'S DEGREE (2023-2024)

MARMARA UNIVERSITY / INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF ENGINEERING MANAGEMENT

BACHELOR'S DEGREE (2017-2021)

GAZI UNIVERSITY FACULTY OF ARCHITECTURE
DEPARTMENT OF INDUSTRIAL DESIGN

ASSOCIATE DEGREE (2015-2017)

HACETTEPE UNIVERSITY ASO 1ST OSB VOCATIONAL SCHOOL
DEPARTMENT OF INDUSTRIAL DESIGN

HIGH SCHOOL DEGREE (2010-2014)

DEMİRTAŞPAŞA ANATOLIAN TECHNICAL HIGH SCHOOL
DEPARTMENT OF MACHINERY/CNC

EXPERIENCE

MOLD DESIGNER / BAYRAK LASTIK (03/2023 - NOW)

GRADUATION PROJECT MARMARA UNIVERSITY (02/2024 - 06/2024)

PRODUCT DESIGNER / ALPIN TECHNOLOGY (11/2021 - 02/2023)

GRADUATION PROJECT / ANADOLU ISUZU (02/2021 - 06/2021)

GRAPHIC DESIGNER / PEGEM YAYINEVI (03/2021 - 05/2021)

DESIGNNOBIS (06/2020 - 07/2020)

BAYRAK LASTIK (07/2019 - 08/2019)

PROKENT DESIGN (02/2017 - 08/2017)

VİTAL MUTFAK (09/2016 - 01/2017)

İNOKSAN A.Ş (07/2016 - 08/2016)

BAYRAK LASTIK (07/2013 - 08/2013)

S.K.T (07/2012 - 08/2012)

SKILLS

PRODUCT DESIGN

RENDERING

RUBBER DIE DESIGN

SHEET METAL DESIGN

GRAPHIC DESIGN

DESIGN MANAGEMENT

UI DESIGN

PROJECT MANAGEMENT



CERTIFICATES

AUTODESK FUSION 360 GENERATIVE DESIGN

TOPSOLID MISSLER SOFTWARE

ASO WELDING EXPERTISE

HENKEL LOCTITE CARE USED IN INDUSTRY

SOLIDCAM

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BULLODY

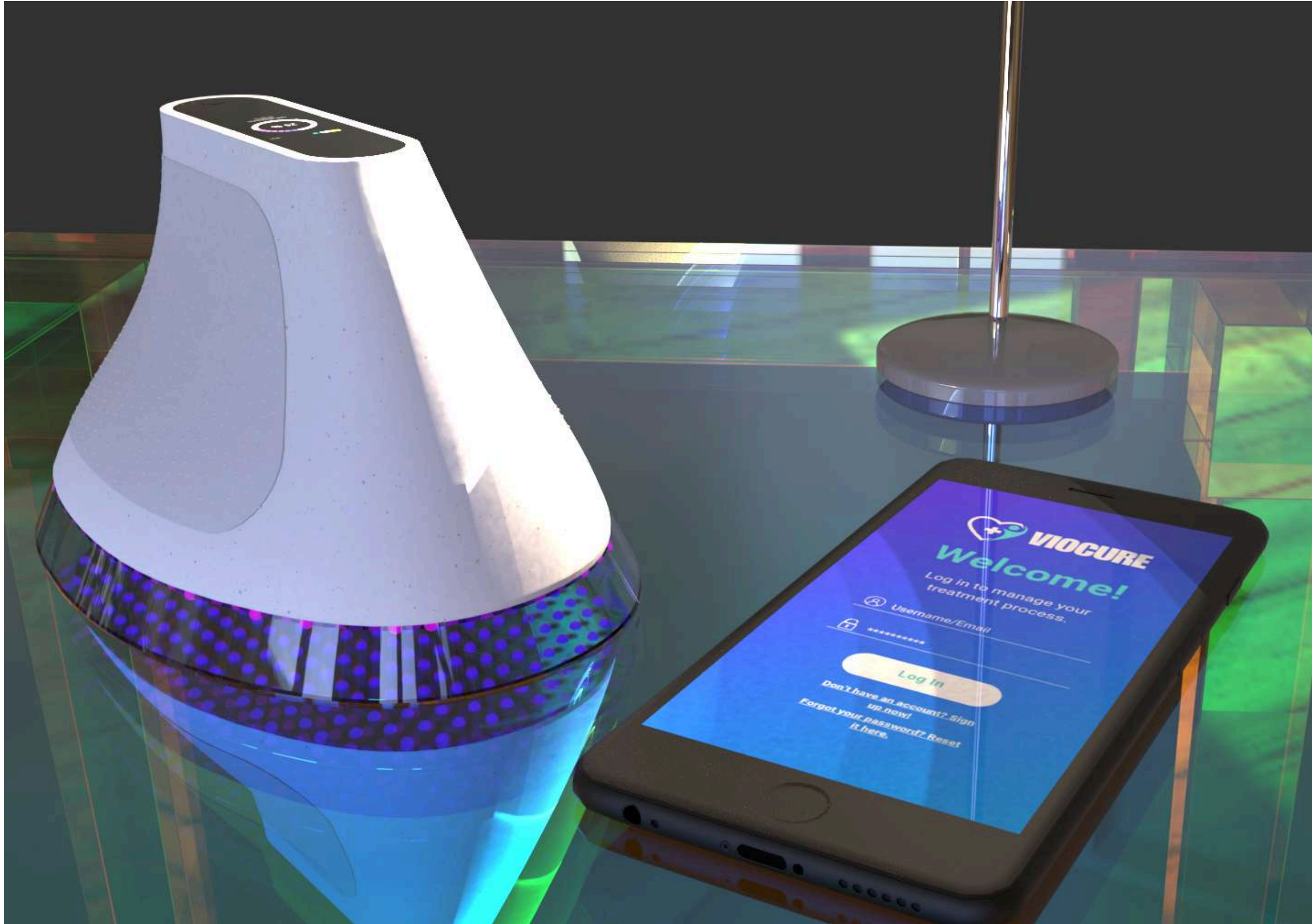
03



PC CASES

04





UV THERAPY DEVICE

INTRODUCING THE PORTABLE ULTRAVIOLET LIGHT THERAPY DEVICE — DESIGNED TO FIT COMFORTABLY IN THE PALM OF YOUR HAND. THIS INNOVATIVE DEVICE ALLOWS FOR EASY CONTROL VIA ITS BUILT-IN SCREEN AND PROVIDES SEAMLESS COMMUNICATION WITH DOCTORS THROUGH A DEDICATED MOBILE APP, OFFERING INSIGHTS INTO THE TREATMENT AND MONITORING PROCESS.

PROBLEM DEFINITION

UV LIGHT THERAPY IS WIDELY USED FOR SKIN CONDITIONS LIKE PSORIASIS, ECZEMA, AND VITILIGO, BUT TRADITIONAL DEVICES ARE LARGE AND STATIONARY, MAKING REGULAR CLINIC VISITS NECESSARY AND CONSISTENT TREATMENT DIFFICULT. ADDITIONALLY, TRADITIONAL UV THERAPY DEVICES:



❌ **DO NOT OFFER PERSONALIZED TRACKING,** PREVENTING DOCTORS FROM REMOTELY MONITORING TREATMENT PROGRESS.



❌ **ARE NOT PORTABLE,** MAKING IT IMPOSSIBLE FOR PATIENTS TO USE THEM IN THEIR DAILY LIVES.



❌ **ARE NOT USER-FRIENDLY,** MAKING IT DIFFICULT FOR PATIENTS TO ADJUST THE CORRECT WAVELENGTH AND DOSAGE.

TARGET AUDIENCE:



ELDERLY OR MOBILITY-IMPAIRED PATIENTS WHO REQUIRE LONG-TERM HOME TREATMENT.

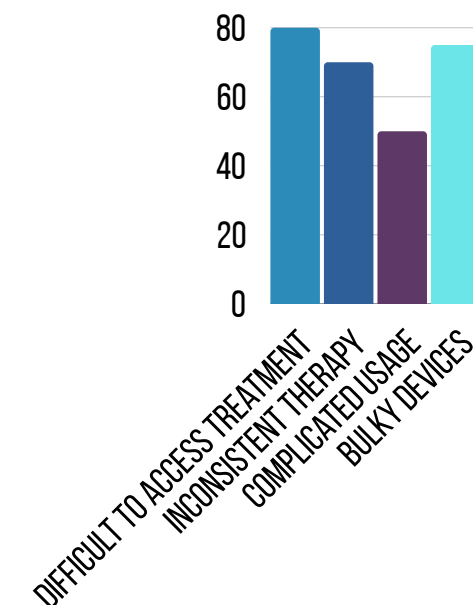


INDIVIDUALS WITH SKIN CONDITIONS SUCH AS PSORIASIS, ECZEMA, AND VITILIGO.

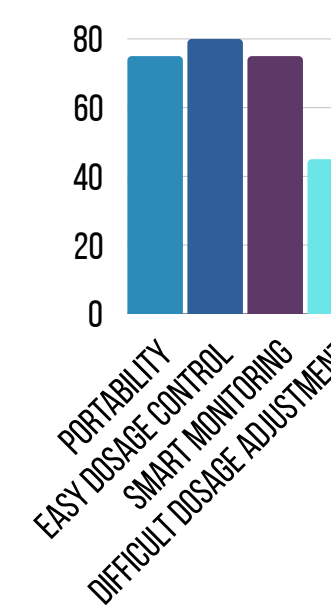


BUSY INDIVIDUALS WHO STRUGGLE TO FIND TIME FOR FREQUENT HOSPITAL VISITS.

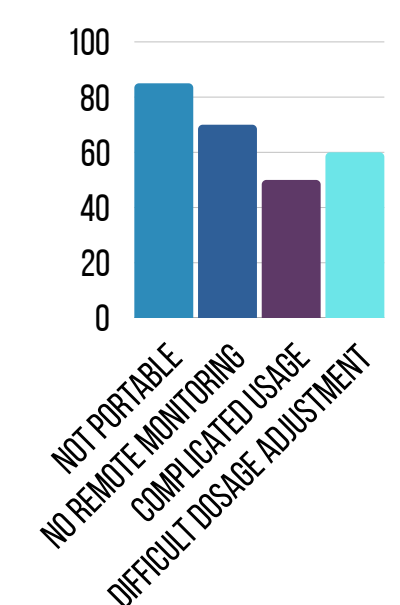
CURRENT DEVICE LIMITATIONS



USER PRIORITIES



PATIENT COMPLAINTS



SWOT ANALYSIS



STRENGTHS

- PORTABLE AND COMPACT DESIGN
- SMART SENSORS FOR PERSONALIZED DOSAGE
- MOBILE APP FOR DOCTOR MONITORING
- ENERGY-EFFICIENT UVB LED TECHNOLOGY



WEAKNESSES

- TRUST ISSUES WITH NEW TECHNOLOGY
- HIGHER INITIAL COST
- COMPLEX ADAPTATION TO VARIOUS SKIN TYPES
- MAY BE DIFFICULT FOR ELDERLY USERS



OPPORTUNITIES

- INCREASING DEMAND FOR HOME TREATMENT
- INTEGRATION WITH DIGITAL HEALTHCARE
- RISE OF MOBILE HEALTH SOLUTIONS



THREATS

- PREFERENCE FOR TRADITIONAL THERAPIES
- WEAK REGULATIONS MAY RAISE SAFETY CONCERNS
- COUNTERFEIT OR LOW-QUALITY ALTERNATIVES

PROBLEMS, ROOT CAUSES AND SOLUTIONS

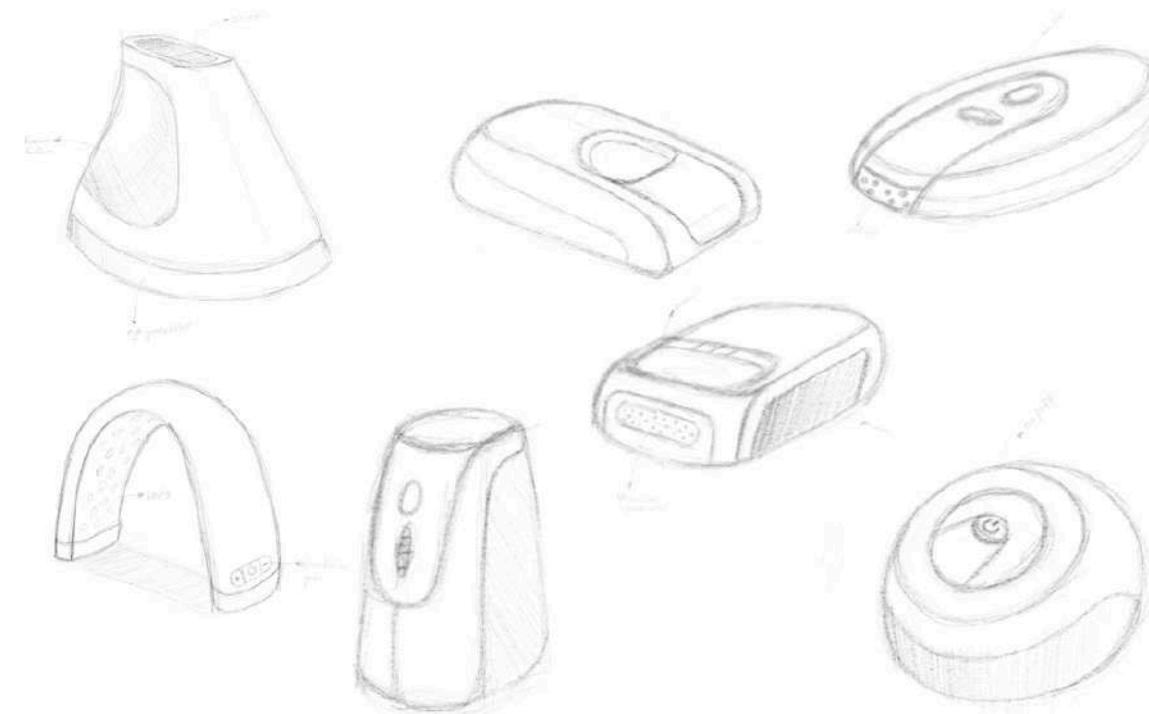
- ❌ **PROBLEM** : INCORRECT DOSAGE BY USERS
- ? **ROOT CAUSE**: MANUAL ADJUSTMENTS ARE UNSTABLE.
- ✅ **SOLUTION**: SMART SENSORS AUTO-DETECT SKIN TYPE AND ADJUST DOSAGE

- ❌ **PROBLEM** : LOW USER ADHERENCE
- ? **ROOT CAUSE**: NO MOTIVATION OR TRACKING
- ✅ **SOLUTION**: PROVIDE REMINDERS AND VISUAL PROGRESS TRACKING

- ❌ **PROBLEM** : DEVICES ARE HARD TO USE
- ? **ROOT CAUSE**: BULKY AND COMPLEX DESIGN
- ✅ **SOLUTION**: CREATE A COMPACT, ERGONOMIC, ONE-HAND DESIGN

- ❌ **PROBLEM** : LACK OF MEDICAL SUPERVISION
- ? **ROOT CAUSE**: NO CONNECTIVITY FEATURES
- ✅ **SOLUTION**: ADD BLUETOOTH/WIFI FOR APP-BASED DOCTOR TRACKING

FORM SKETCHES



✔ **PORTABILITY**

COMPACT DESIGN THAT FITS IN THE PALM OF YOUR HAND.

✔ **REMOTE MONITORING**

DOCTORS CAN TRACK THE PATIENT'S PROGRESS VIA THE MOBILE APP.
TREATMENT DURATION AND PARAMETERS SET BY THE DOCTOR.

✔ **CONTROL**

EASY OPERATION THROUGH THE BUILT-IN SCREEN AND MOBILE APP.

✔ **ARTIFICIAL INTELLIGENCE**

DETECTS DAMAGED AREAS AND OPTIMIZES TREATMENT.

✔ **SAFETY**

SPECIALIZED HEADPIECE MATERIAL PREVENTS UV LIGHT FROM
HARMING THE EYES.

✔ **ADAPTABILITY**

POINT LEDS AUTOMATICALLY ADJUST BASED ON WOUND SIZE.





DETERMINATION AND PREPARATION OF THE TREATMENT AREA

THE DEVICE USES AI-POWERED SENSORS TO DETECT THE DAMAGED AREA AND DIRECTS UV RAYS SPECIFICALLY TO THE TARGET AREA.

THE RADIATION SHIELD PREVENTS SURROUNDING TISSUES AND EYES FROM BEING HARMED.

PLACEMENT OF THE DEVICE

THE RADIATION HEAD ENSURES THE DEVICE IS POSITIONED CORRECTLY AND PREVENTS IT FROM BEING HELD TOO CLOSE TO THE SKIN.

SAFETY SENSORS STOP THE DEVICE FROM OPERATING IF PLACED INAPPROPRIATELY.

STARTING THE TREATMENT

THE TOUCHSCREEN AND MOBILE APPLICATION DISPLAY THE TREATMENT PARAMETERS SET BY THE DOCTOR IN ADVANCE.

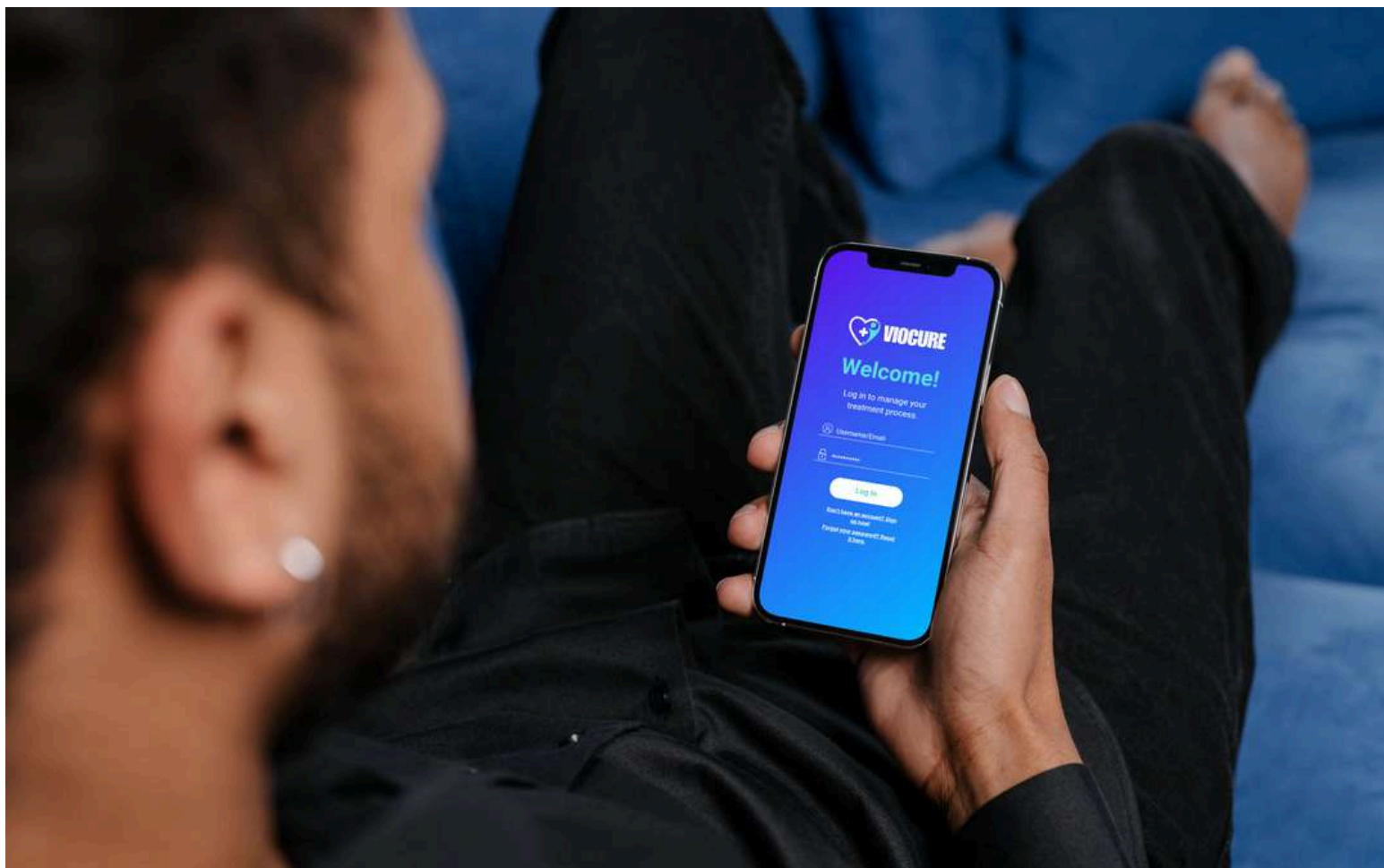
THE PATIENT STARTS THE TREATMENT VIA THE START BUTTON ON THE DEVICE OR THROUGH THE APP.

PROGRESS OF THE TREATMENT

UV LED MODULES AUTOMATICALLY ACTIVATE OR DEACTIVATE BASED ON THE SIZE OF THE WOUND AND DIRECT ENERGY TO THE TARGETED AREA.

SAFETY SENSORS DETECT IMPROPER USE AND PAUSE THE TREATMENT IF NECESSARY.

THE PATIENT CAN MONITOR THE TREATMENT PROGRESS VIA THE DEVICE'S SCREEN OR THE MOBILE APP.



COMPLETION OF TREATMENT AND DATA MONITORING

THE DEVICE AUTOMATICALLY SHUTS OFF WHEN THE TREATMENT IS COMPLETE. ALL TREATMENT DATA IS SAVED TO THE MOBILE APP, ALLOWING THE DOCTOR TO REMOTELY ASSESS THE TREATMENT'S EFFECTIVENESS AND MAKE ADJUSTMENTS IF NEEDED.

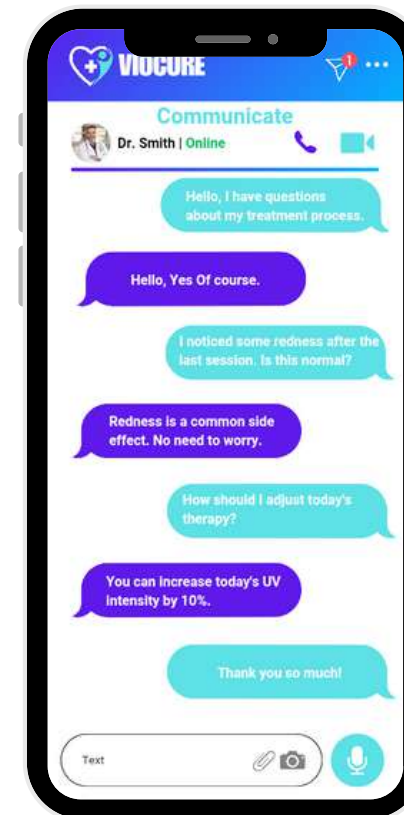
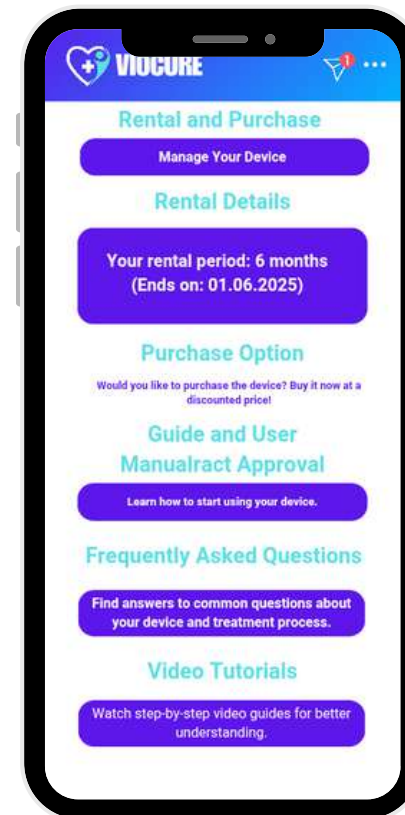
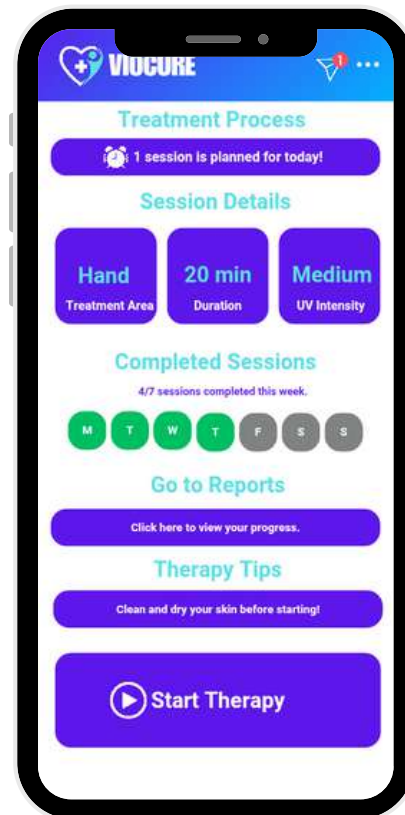
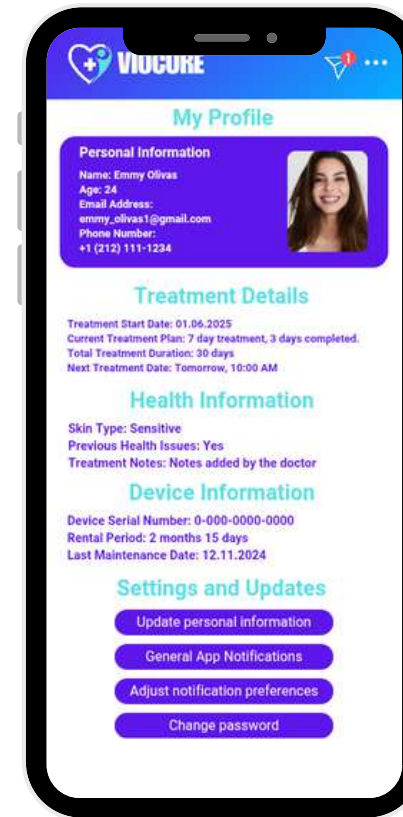
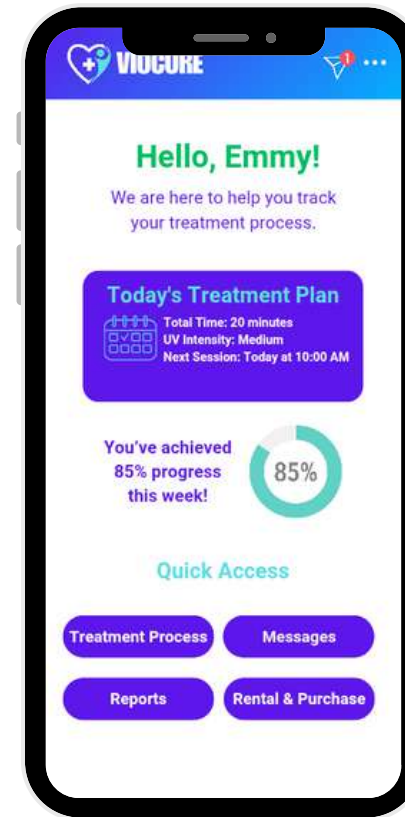
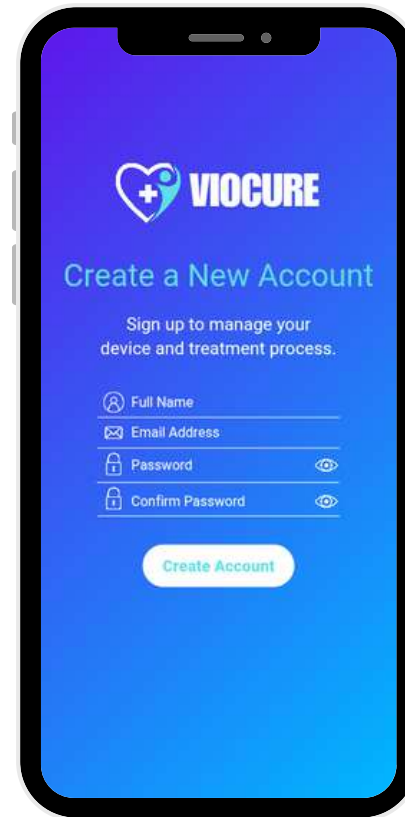
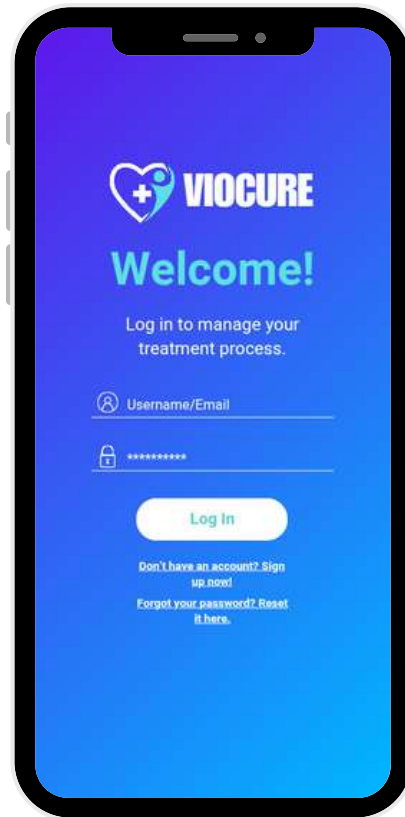
STORAGE AND CHARGING OF THE DEVICE

AFTER TREATMENT, THE DEVICE IS STORED IN ITS SPECIAL CARRYING AND PROTECTIVE CASE. THE BATTERY AND CHARGING UNIT PREPARE THE DEVICE FOR THE NEXT USE.

RENTAL PROCESS

THE DOCTOR PRESCRIBES AND MONITORS THE RENTED DEVICE, WHICH IS DELIVERED READY FOR USE. AFTER TREATMENT, IT IS RETURNED OR THE RENTAL EXTENDED, THEN DISINFECTED FOR THE NEXT USER.





MOBILE APPLICATION INTERFACE

VIOCURE IS YOUR MODERN COMPANION FOR PERSONALIZED ULTRAVIOLET LIGHT THERAPY, HELPING YOU MANAGE YOUR DEVICE, TRACK PROGRESS, AND CONNECT WITH EXPERT DOCTORS—ALL IN ONE PLACE!

- ✓ **SEAMLESSLY MANAGE YOUR THERAPY**
PLAN SESSIONS, CONTROL YOUR DEVICE, AND ANALYZE RESULTS. VISUALIZE YOUR PROGRESS WITH INTUITIVE GRAPHS.
- ✓ **TRACK YOUR SKIN HEALTH**
COMPARE YOUR SKIN'S CONDITION BEFORE AND AFTER THERAPY. SET PERSONAL HEALTH GOALS AND CELEBRATE YOUR PROGRESS.
- ✓ **STAY CONNECTED TO YOUR DOCTOR**
CHAT INSTANTLY, ASK QUESTIONS, OR START A VIDEO CONSULTATION.
- ✓ **SECURE AND USER-FRIENDLY**
ENJOY SAFE DATA SHARING AND A SIMPLE, MODERN INTERFACE.

RESPIRO

SMART AIR PURIFIER

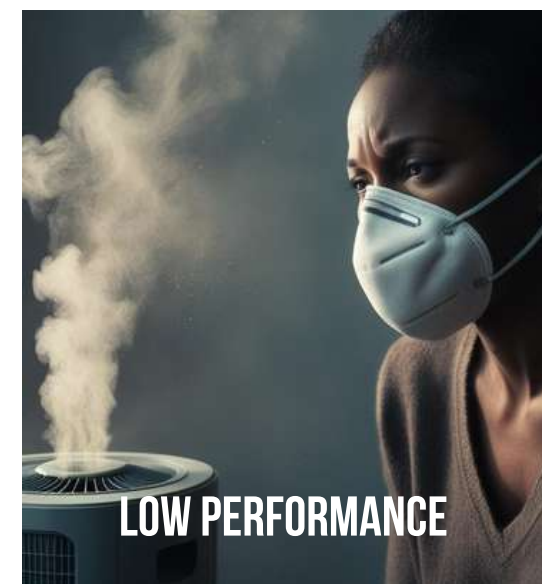
RESPIRO IS A SMART AIR PURIFIER AND AROMATHERAPY DEVICE DESIGNED FOR COMPACT SPACES. WITH ORGANOID DISK TECHNOLOGY, IT DELIVERS NATURAL AROMAS AND USES AN AI-ASSISTED SYSTEM TO ANALYZE AIR QUALITY IN REAL-TIME. IT AUTOMATICALLY ADJUSTS FAN SPEED AND AROMATHERAPY INTENSITY TO CREATE A HEALTHY ATMOSPHERE. IT CAN BE CONTROLLED REMOTELY VIA ITS MOBILE APP AND OFFERS A PERSONALIZED EXPERIENCE BASED ON YOUR HABITS. WITH ITS ECO-FRIENDLY AND COMPACT DESIGN, RESPIRO BRINGS FRESHNESS TO ANY SPACE.



PROBLEM DEFINITION

THERE IS A NEED FOR COMPACT, SMART DEVICES THAT IMPROVE AIR QUALITY AND OFFER NATURAL AROMATHERAPY IN SMALL OR MOBILE LIVING SPACES. EXISTING PRODUCTS OFTEN FALL SHORT IN DESIGN, ENERGY EFFICIENCY, AND PERSONALIZATION.

GENERAL PROBLEMS FOR AIR PURIFIERS



SWOT ANALYSIS

STRENGTHS

COMPACT, WALL-MOUNTED DESIGN
QUIET & ENERGY-EFFICIENT
MOBILE APP CONTROL

WEAKNESSES

LESS EFFECTIVE IN LARGE SPACES
HIGHER PRICE THAN STANDARD PURIFIERS

OPPORTUNITIES

GROWING CAMPER/MOBILE SPACE MARKET
AI-DRIVEN PERSONALIZED AIR & SCENT
RISING DEMAND FOR ECO-FRIENDLY TECH

THREATS

COMPETING SMART AIR PRODUCTS
USER ADAPTATION CHALLENGES
RISING PRODUCTION COSTS

ROOT CAUSE ANALYSIS FOR SMALL SPACES (5 WHYS)

PROBLEM:

UNSTABLE AIR QUALITY AND WEAK SCENT IN COMPACT MOBILE SPACES.

1. WHY?

POOR VENTILATION CAUSES QUICK AIR QUALITY CHANGES IN VANS AND SMALL HOMES.

2. WHY?

MOST ARE TOO BIG, LOUD, OR INEFFICIENT, AND LACK SCENT FEATURES.

3. WHY?

FEW ARE MADE FOR MOBILE, SPACE-LIMITED, MULTIFUNCTIONAL USE.

4. WHY?

RISING DEMAND FOR COMPACT, LOW-ENERGY, STYLISH, EASY-TO-USE DEVICES—STILL UNMET.

5. WHY?

URBAN HOMES PRIORITIZED; MOBILE LIFESTYLES OFTEN OVERLOOKED.

USER PERSONA

NEEDS:

CLEAN AIR, NATURAL SCENT, QUIET AND EFFICIENT DEVICE

PAIN POINTS:

ALLERGIES, SCENT SENSITIVITY, LIMITED SPACE



WHITNEY (34)
UX DESIGNER
LIVES IN A CAMPER

A TOUGH MORNING IN THE CAMPER



WHITNEY WAKES UP IN HER CAMPER WITH A BLOCKED NOSE. HER ALLERGIES FLARE UP DUE TO POOR AIR QUALITY.

LUCKILY, A SILENT DEVICE ANALYZES AND PURIFIES THE AIR AUTOMATICALLY.



SHE CAN BREATHE EASILY AGAIN, AND SOON SHE'S COMFORTABLY WORKING ON HER DESIGNS.

HOW MIGHT WE?

1. HOW MIGHT WE PURIFY AIR IN COMPACT/MOBILE SPACES?
2. HOW MIGHT WE SUPPORT ALLERGY-PRONE USERS ON THE GO?
3. HOW MIGHT WE CLEAN AIR QUIETLY IN TIGHT SPACES?
4. HOW MIGHT WE PERSONALIZE AIR CLEANING BY USER HABITS?

DESIGN OPPORTUNITIES

- ✓ THE NEED FOR CONTINUOUS AIR QUALITY MONITORING
- ✓ THE OPPORTUNITY TO IMPROVE THE USER'S SENSORY EXPERIENCE
- ✓ PORTABLE, SILENT, AND ENERGY-EFFICIENT SOLUTIONS
- ✓ CUSTOMIZABLE CLEANING MODES FOR ALLERGY-SENSITIVE USERS
- ✓ APPLICATION-SUPPORTED CONTROL AND FEEDBACK SYSTEMS

SOLUTION OVERVIEW

- ✓ AI-ASSISTED, REAL-TIME AIR ANALYSIS SYSTEM
- ✓ INTEGRATED AROMATHERAPY FEATURE
- ✓ SILENT MODE AND ENERGY-SAVING SETTINGS
- ✓ REMOTE CONTROL AND AUTOMATION VIA A MOBILE APP
- ✓ PORTABLE DESIGN IN A COMPACT AND AESTHETIC FORM



SMART AIR PURIFICATION SYSTEM

RESPIRO'S AI-ASSISTED AIR PURIFICATION SYSTEM CONTINUOUSLY MONITORS AND ANALYZES THE AIR QUALITY OF YOUR ENVIRONMENT. IT EFFECTIVELY FILTERS OUT POLLEN, DUST, AND HARMFUL PARTICLES. THE AI-SUPPORTED AUTOMATIC MODE OPTIMIZES FAN SPEED AND OPERATING TIME ACCORDING TO THE AIR QUALITY, ENSURING MAXIMUM EFFICIENCY AT ALL TIMES.

AROMATHERAPY EXPERIENCE WITH ORGANOID DISK

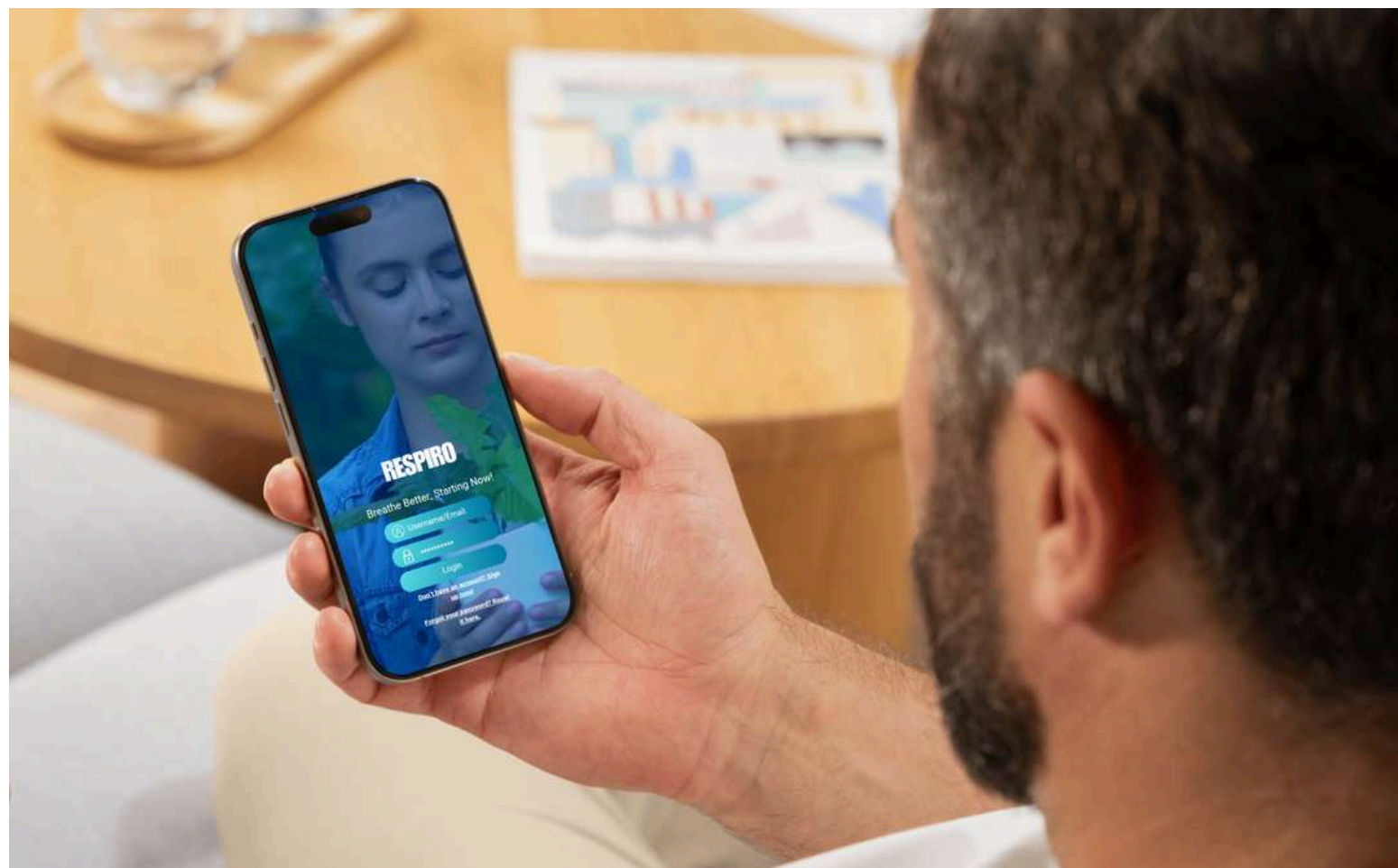
WITH ORGANOID DISK TECHNOLOGY, MADE BY PRESSING NATURAL MATERIALS, RESPIRO INTEGRATES AROMATHERAPY INTO YOUR DAILY LIFE. ESSENTIAL OILS ADDED TO THE OIL RESERVOIR ARE DIFFUSED THROUGH THE ORGANOID PLATE, PROVIDING DELIGHTFUL SCENTS. WHETHER IT'S A REFRESHING LEMON AROMA OR CALMING LAVENDER, RESPIRO ENRICHES YOUR SPACE WITH A VARIETY OF SCENTS TO SUIT EVERY PREFERENCE.

PERSONALIZED EXPERIENCE

RESPIRO LEARNS USER HABITS AND OFFERS TAILORED SUGGESTIONS. IT RECOMMENDS ENERGIZING SCENTS IN THE MORNING AND RELAXING AROMAS IN THE EVENING. THE FAN SPEED, AROMATHERAPY INTENSITY, AND MODES CAN BE EASILY CONTROLLED VIA THE BUILT-IN SCREEN OR MOBILE APP.

FULL CONTROL WITH MOBILE APP

RESPIRO IS ALWAYS AT YOUR FINGERTIPS WITH ITS SMARTPHONE APP. YOU CAN MONITOR AIR QUALITY, CHANGE AROMATHERAPY MODES, ADJUST FAN SPEED, AND OPERATE THE DEVICE REMOTELY. FEATURES LIKE WEEKLY AIR QUALITY REPORTS AND FILTER REPLACEMENT NOTIFICATIONS GIVE YOU COMPLETE CONTROL.



HEALTH AND ALLERGY-FRIENDLY

RESPIRO IS EQUIPPED WITH SPECIAL MODES FOR THOSE WITH ALLERGIES. THE AI DETECTS ALLERGENS AND KEEPS THE AIR IN A HEALTHY RANGE. IT'S AN IDEAL SOLUTION FOR PEOPLE SENSITIVE TO POLLEN, DUST, AND OTHER IRRITANTS.

ECO-FRIENDLY AND ENERGY EFFICIENT

DESIGNED WITH SUSTAINABILITY IN MIND, RESPIRO FEATURES AN ECO-FRIENDLY STRUCTURE AND SMART ENERGY MANAGEMENT. IT OPTIMIZES ENERGY CONSUMPTION, OPERATING ONLY WHEN NEEDED, AND REDUCES ITS CARBON FOOTPRINT.

SLEEP-FRIENDLY QUIET MODE

WITH A SPECIAL QUIET MODE FOR NIGHTTIME USE, RESPIRO OPERATES SILENTLY AT LOW FAN SPEED. ITS AI EVEN DETECTS NOISE LEVELS IN THE ENVIRONMENT AND ADJUSTS THE DEVICE'S SOUND ACCORDINGLY.



✔ **AI-ASSISTED OPERATION**

CONTINUOUSLY MONITORS AND ANALYZES AIR QUALITY.

✔ **AROMATHERAPY TECHNOLOGY**

REFRESHES YOUR ENVIRONMENT WITH NATURAL SCENTS.

✔ **COMPACT AND STYLISH DESIGN**

PERFECT FIT FOR SMALL SPACES.

✔ **MOBILE APP SUPPORT**

OFFERS THE CONVENIENCE OF REMOTE CONTROL.

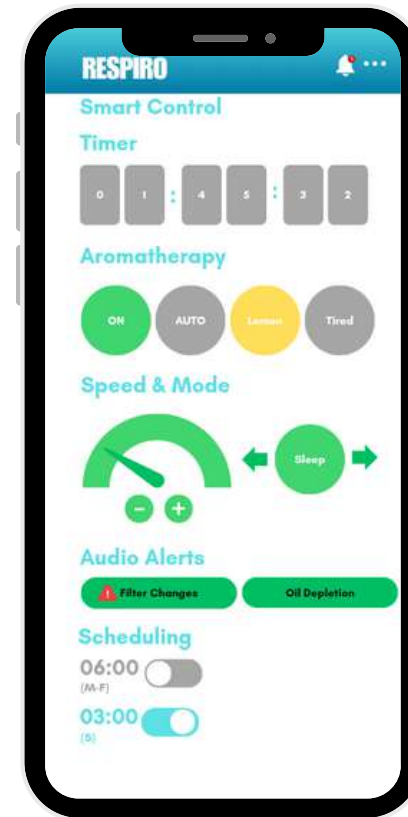
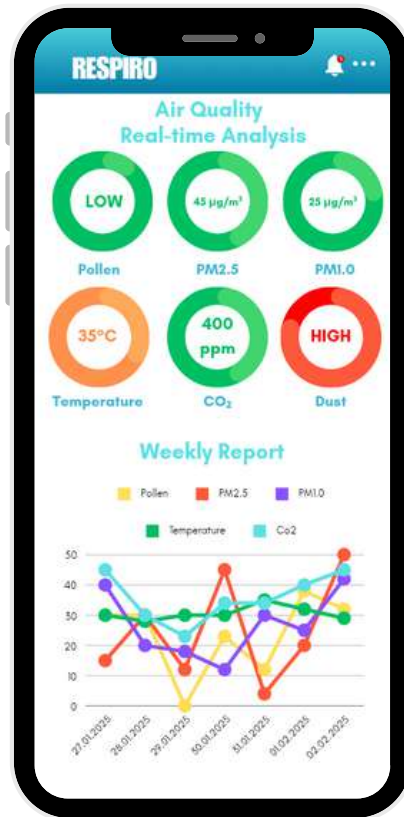
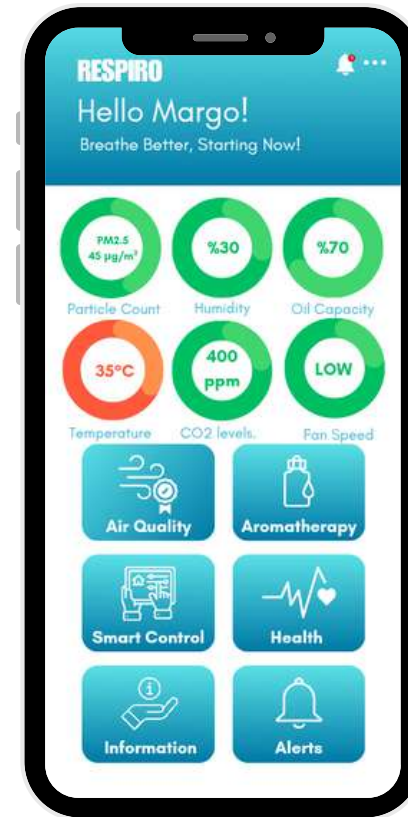
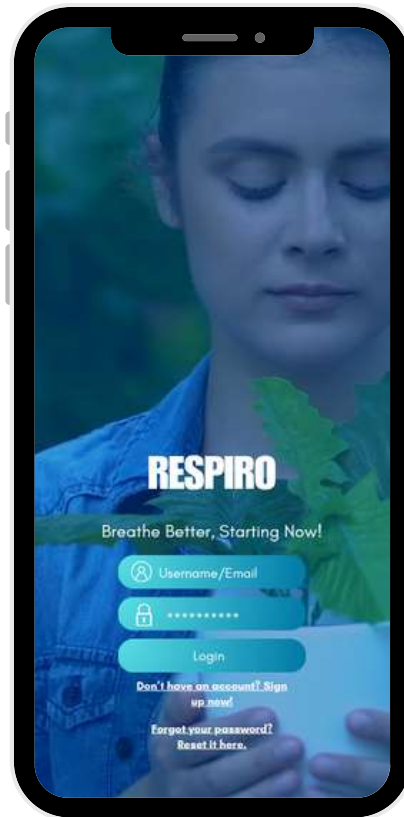
✔ **ECO-FRIENDLY AND ENERGY EFFICIENT**

DESIGNED FOR SUSTAINABLE LIVING.

✔ **HEALTH AND ALLERGY-FRIENDLY MODES**

SENSITIVE TO INDIVIDUAL NEEDS.





MOBILE APPLICATION INTERFACE

THE RESPIRO MOBILE APP ALLOWS YOU TO FULLY CONTROL YOUR AIR PURIFIER, MONITOR THE AIR QUALITY, AND MANAGE YOUR PERSONALIZED EXPERIENCES. WITH ITS SMART FEATURES AND USER-FRIENDLY INTERFACE, YOU CAN MANAGE EVERY ASPECT OF YOUR DEVICE AND CREATE THE IDEAL ENVIRONMENT FOR A HEALTHY AND FRESH ATMOSPHERE. BELOW ARE THE KEY FEATURES AND PAGES OF YOUR RESPIRO APP:

- ✓ **REAL-TIME AIR QUALITY MONITORING**
TRACK PARTICLES, DUST, POLLEN, CO2 LEVELS, TEMPERATURE, AND HUMIDITY IN REAL TIME.
- ✓ **AROMATHERAPY MANAGEMENT**
CHOOSE AND ADJUST ESSENTIAL OILS' INTENSITY, AND MONITOR THE RESERVOIR'S FILL LEVEL. OFFERS PERSONALIZED AROMA RECOMMENDATIONS.
- ✓ **FAN SPEED AND MODE CONTROL**
EASILY ADJUST FAN SPEED (LOW, MEDIUM, HIGH) AND OPERATING MODES (SLEEP, TURBO, AUTO).
- ✓ **SMART MODE AND AUTOMATIC SETTINGS**
AUTOMATICALLY OPTIMIZES FAN SPEED AND MODE BASED ON AIR QUALITY LEVELS.



BULLODY

DYSLEXIA-FRIENDLY MUSICAL INSTRUMENT

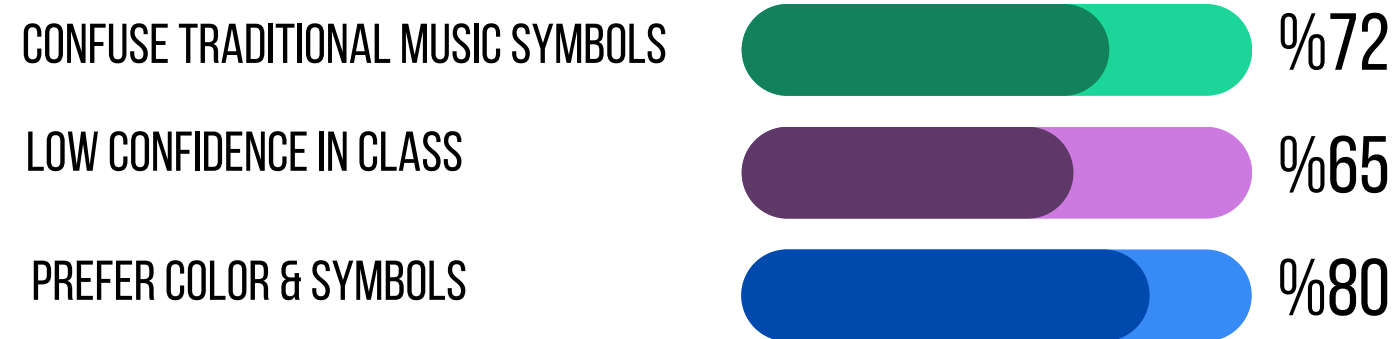
DISCOVER THE JOY OF MUSIC IN A COLORFUL AND EXCITING WAY! BULLODY IS DESIGNED TO MAKE LEARNING MUSIC FUN AND ACCESSIBLE FOR ALL CHILDREN, ESPECIALLY THOSE WITH DIFFERENT LEARNING STYLES. PRESS THE KEYS, FOLLOW THE COLORS, AND MEET THE PLAYFUL SYMBOLS THAT WILL GUIDE YOU THROUGH YOUR MUSICAL JOURNEY.

READY TO CREATE YOUR FIRST MELODY? LET'S START BY PRESSING THE DO KEY AND MEETING YOUR FIRST MUSICAL FRIEND: DOG! 🎵

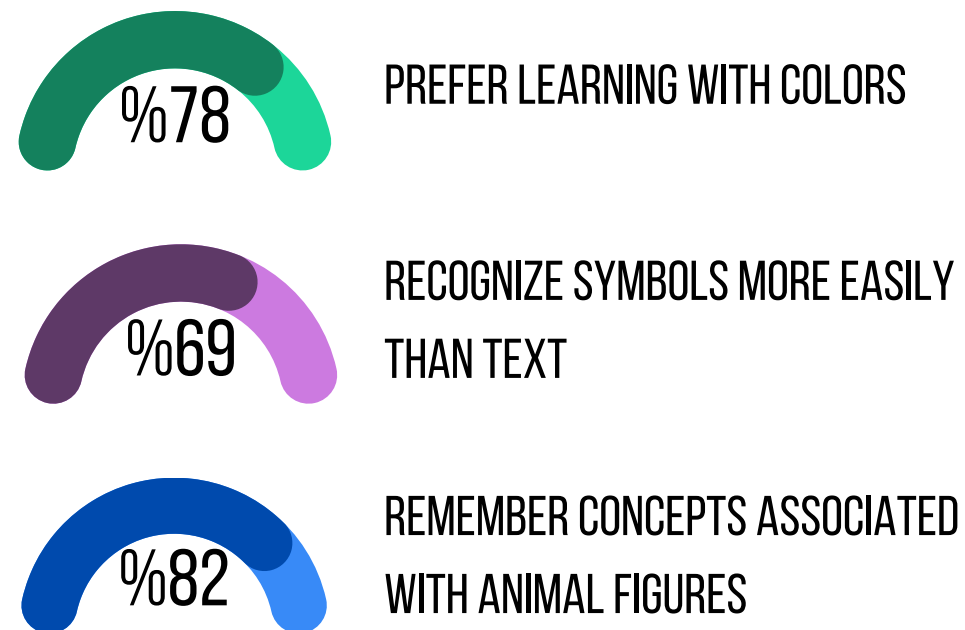
PROBLEM DEFINITION

CHILDREN WITH DYSLEXIA OFTEN STRUGGLE IN TRADITIONAL MUSIC EDUCATION DUE TO DIFFICULTIES WITH READING NOTATION, ABSTRACT INSTRUCTIONS, AND AUDITORY PROCESSING. THIS CAN LEAD TO FRUSTRATION AND LOW CONFIDENCE. THERE'S A NEED FOR AN INCLUSIVE, PLAYFUL, AND SENSORY-BASED TOOL THAT MAKES MUSIC LEARNING INTUITIVE AND ENJOYABLE FOR ALL, ESPECIALLY THOSE WITH DIVERSE LEARNING STYLES.

DYSLEXIA & MUSIC LEARNING DIFFICULTIES



PREFERRED LEARNING AIDS



ROOT CAUSES & MATCHED SOLUTIONS

1. PASSIVE, ONE-WAY TEACHING

→ **SOLUTION:** INTEGRATE GAME MECHANICS TO INCREASE INTERACTION AND DECISION-MAKING.

2. LACK OF MOTIVATION

→ **SOLUTION:** USE REWARDS, LEVELS, AND VISUAL FEEDBACK TO STIMULATE INTEREST.

3. DIFFICULTY MAINTAINING ATTENTION

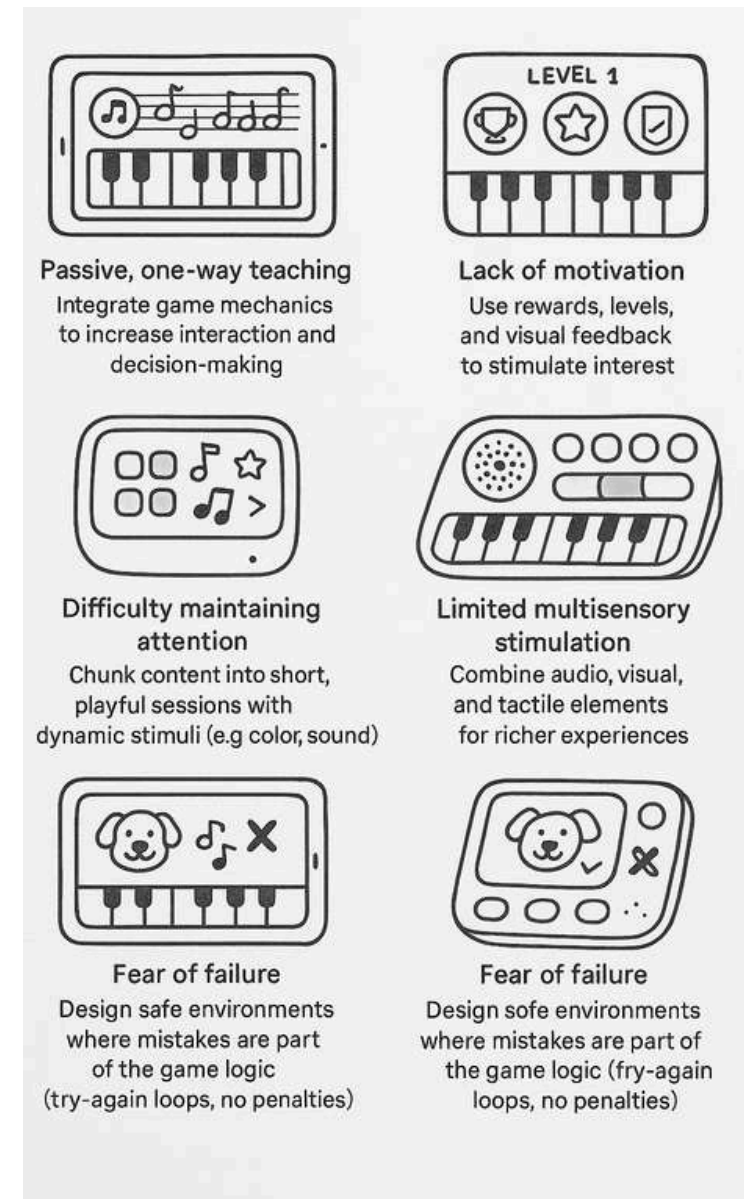
→ **SOLUTION:** CHUNK CONTENT INTO SHORT, PLAYFUL SESSIONS WITH DYNAMIC STIMULI (E.G. COLOR, SOUND).

4. LIMITED MULTISENSORY STIMULATION

→ **SOLUTION:** COMBINE AUDIO, VISUAL, AND TACTILE ELEMENTS FOR RICHER EXPERIENCES.

5. FEAR OF FAILURE

→ **SOLUTION:** DESIGN SAFE ENVIRONMENTS WHERE MISTAKES ARE PART OF THE GAME LOGIC (TRY-AGAIN LOOPS, NO PENALTIES).



USER PERSONA

PERSONALITY TRAITS:

- CURIOUS
- ENERGETIC
- LOVES COLORS
- GREAT AT RECOGNIZING ANIMALS

HOBBIES:



ECE (9)
DIAGNOSED WITH DYSLEXIA
VISUAL-AUDITORY LEARNER



NEEDS:

- COLORFUL, SYMBOL AND STORY-BASED LEARNING
- SMALL, ACHIEVABLE STEPS FOR A SENSE OF SUCCESS
- SIMPLE, CLEAR INSTRUCTIONS

CHALLENGES:

- DIFFICULTY DISTINGUISHING LETTERS AND NOTES
- STRUGGLES TO FOLLOW LONG INSTRUCTIONS
- HAS TROUBLE UNDERSTANDING ABSTRACT CONCEPTS

USER JOURNEY MAP



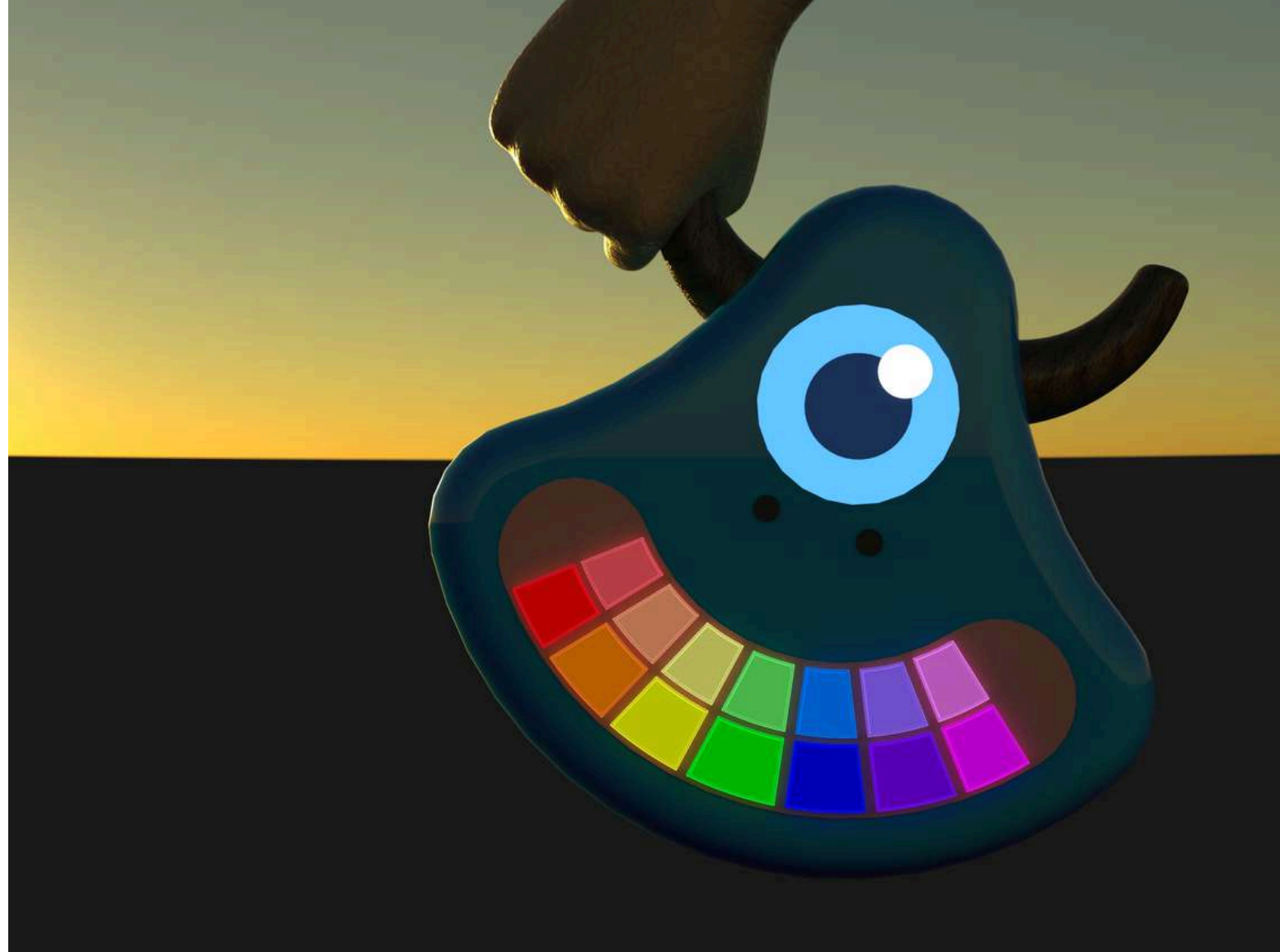
THEIR SELF-CONFIDENCE DECREASES, AND
MOTIVATION TO LEARN DIMINISHES.



A CHILD DIAGNOSED WITH DYSLEXIA CONFUSES
MUSICAL NOTE SYMBOLS IN CLASS.
THEY STRUGGLE TO FOLLOW SEQUENCES AND
FALL BEHIND THEIR PEERS.



TEACHERS AND PARENTS OBSERVE THAT
THE CHILD LEARNS BETTER WITH COLORFUL,
AUDITORY, AND SYMBOL-SUPPORTED
CONTENT.



✔ TWO-OCTAVE RANGE

WIDE KEY ARRANGEMENT ALLOWS FOR CREATING RICH AND CREATIVE MELODIES.

✔ SPEAKER OUTPUT

ENJOY HIGH-QUALITY SOUND OR CONNECT HEADPHONES FOR A QUIET LEARNING EXPERIENCE.

✔ FUN BULL-THEMED DESIGN

THE CUTE BULL-INSPIRED DESIGN ATTRACTS CHILDREN'S ATTENTION. ERGONOMIC HORN-SHAPED HANDLES MAKE IT EASY TO CARRY.

✔ DYSLEXIA-FRIENDLY DESIGN

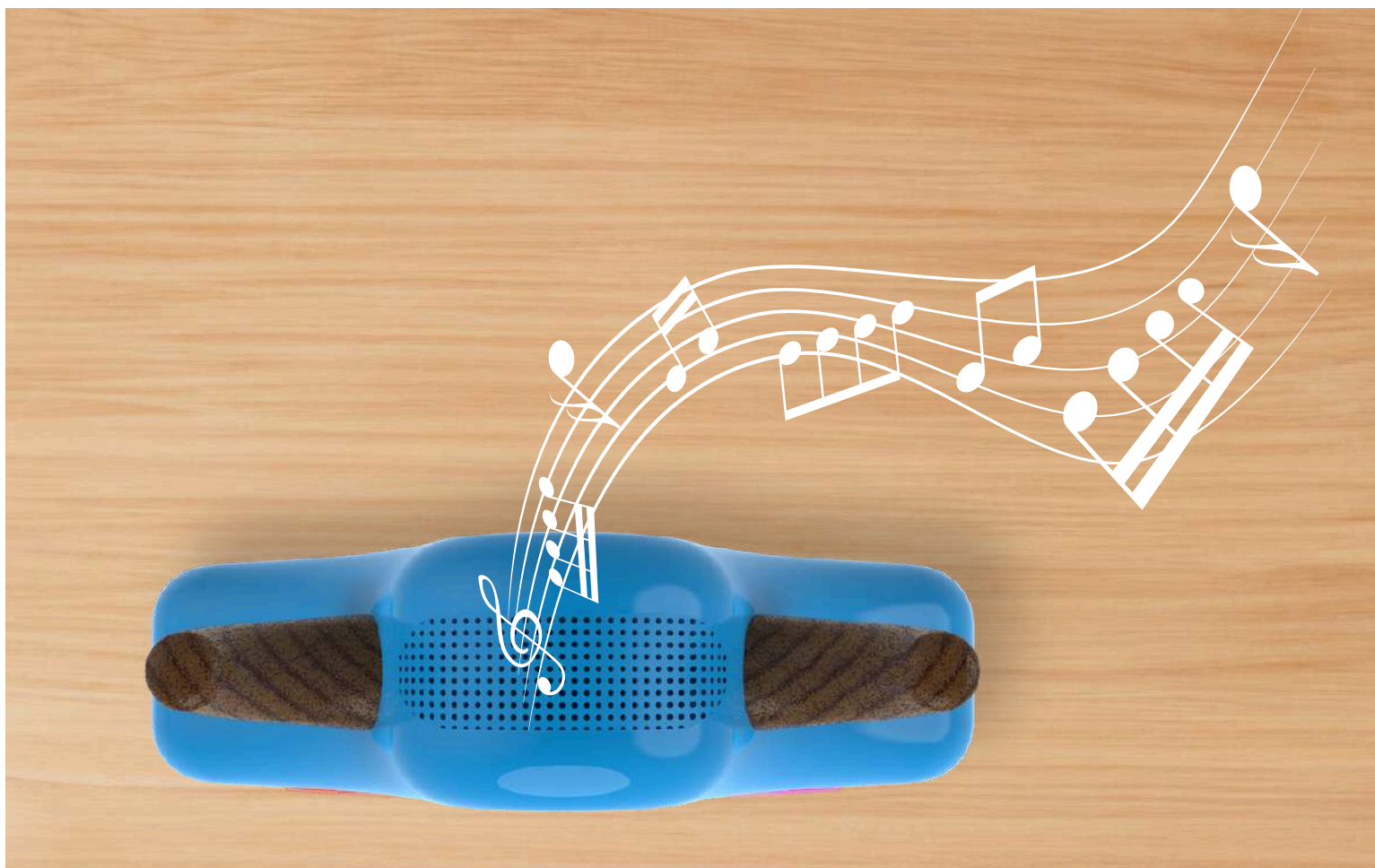
COLORFUL AND INTUITIVE KEY ARRANGEMENT MAKES LEARNING NOTES EASIER AND MORE ENJOYABLE. THIS DESIGN BRINGS TOGETHER BOTH FUNCTIONALITY AND FUN!





✔ **COLOR-CODED KEYS & SCREEN VISUALS**

EACH NOTE IS REPRESENTED BY A DIFFERENT COLOR. WHEN A KEY IS PRESSED, THE SCREEN DISPLAYS THE CORRESPONDING COLOR AND A FUN SYMBOL.





WORKSTATIONS

THESE WORKSTATIONS COMBINE PERFORMANCE AND ELEGANCE FOR PRODUCT DESIGN. THEIR SLEEK, DURABLE CASES FIT MODERN WORKSPACES, WHILE POWERFUL HARDWARE ENSURES SMOOTH OPERATION OF COMPLEX DESIGN SOFTWARE. WITH EFFECTIVE COOLING AND ERGONOMIC DESIGN FOR COMFORT, THEY ARE IDEAL FOR PROFESSIONALS SEEKING EFFICIENCY AND INNOVATION.

✔ **DURABILITY**

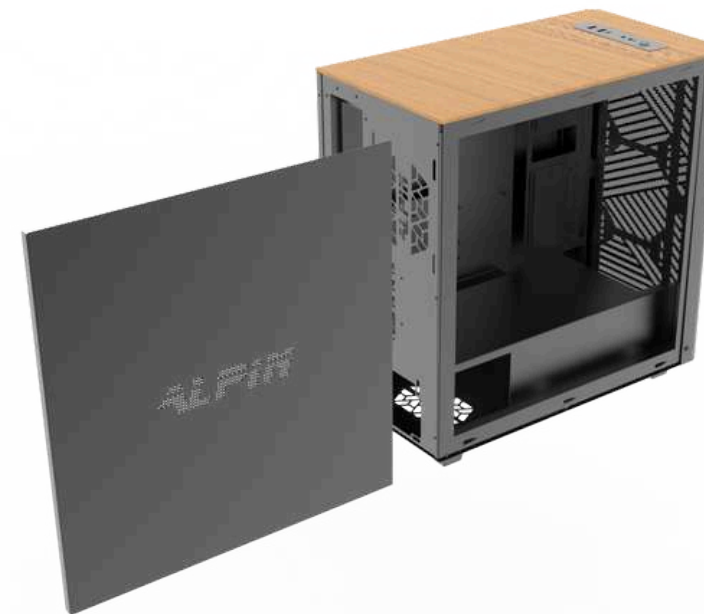
CRAFTED FROM HIGH-QUALITY MATERIALS SUCH AS ALUMINUM OR STEEL, IT ENSURES LONG-LASTING DURABILITY. ITS IMPACT-RESISTANT STRUCTURE PROVIDES SECURE AND RELIABLE USAGE.

✔ **FUNCTIONALITY**

THE SPACIOUS INTERIOR IS COMPATIBLE WITH BOTH LIQUID AND AIR COOLING SYSTEMS. THE MODULAR COMPONENT STRUCTURE ALLOWS FOR EASY ASSEMBLY AND UPGRADES. WITH A USB TYPE-C PORT AND OPTIMIZED CABLE MANAGEMENT, IT OFFERS A USER-FRIENDLY EXPERIENCE.

✔ **VERSATILITY**

SUPPORTS VARIOUS MOTHERBOARD SIZES AND MULTIPLE STORAGE CONFIGURATIONS, OFFERING FLEXIBILITY FOR DIFFERENT USER NEEDS.





✔ FUNCTIONAL CASE SIZE

WORKSTATION III SUPPORTS THE HARDWARE THAT THE USER MAY NEED WITH ITS FUNCTIONAL CASE SIZE, COOLING PERFORMANCE AND SPECIALLY DESIGNED HARDWARE CONNECTION EQUIPMENT.

IT PROVIDES THE USER WITH MAXIMUM PERFORMANCE AND HARDWARE SUPPORT WITH MINIMUM CHASSIS SIZE.



✔ **UNIQUE AND EXCITING EXTERIOR DESIGN**

ALPIN GAMING PC OFFERS A UNIQUE EXTERIOR AND FUNCTIONAL INTERIOR DESIGN, MEETING USER NEEDS. IT FEATURES A COMPREHENSIVE CABLE MANAGEMENT SYSTEM FOR EASY CABLE INSTALLATION. THE CASE SUPPORTS FOUR REMOVABLE 3.5" HDDS AND ADDITIONAL 2.5" SSDS MOUNTED FROM THE BOTTOM. AN EXTRA SSD MOUNTING SPOT IS ALSO AVAILABLE AT THE BOTTOM, ENSURING VERSATILE STORAGE OPTIONS.



✔ UNIQUE AND EXCITING EXTERIOR DESIGN

ALPIN WORKSTATION PC COMBINES A SLEEK AND FUNCTIONAL DESIGN WITH HIGH PERFORMANCE FOR PROFESSIONAL USERS. IT OFFERS A CHOICE BETWEEN DURABLE METAL OR ELEGANT TEMPERED GLASS SIDE PANELS TO SUIT DIFFERENT PREFERENCES. THE CASE FEATURES A COMPREHENSIVE CABLE MANAGEMENT SYSTEM FOR ORGANIZED AND EFFICIENT SETUP. WITH VERSATILE STORAGE OPTIONS, IT SUPPORTS FOUR REMOVABLE 3.5" HDDS AND ADDITIONAL 2.5" SSDS MOUNTED FROM THE BOTTOM. THE LOWER SECTION OF THE CASE IS DESIGNED TO HOUSE POWERFUL COOLING FANS, ENSURING OPTIMAL AIRFLOW FOR DEMANDING TASKS.



✔ PERFORMANCE AND ELEGANCE

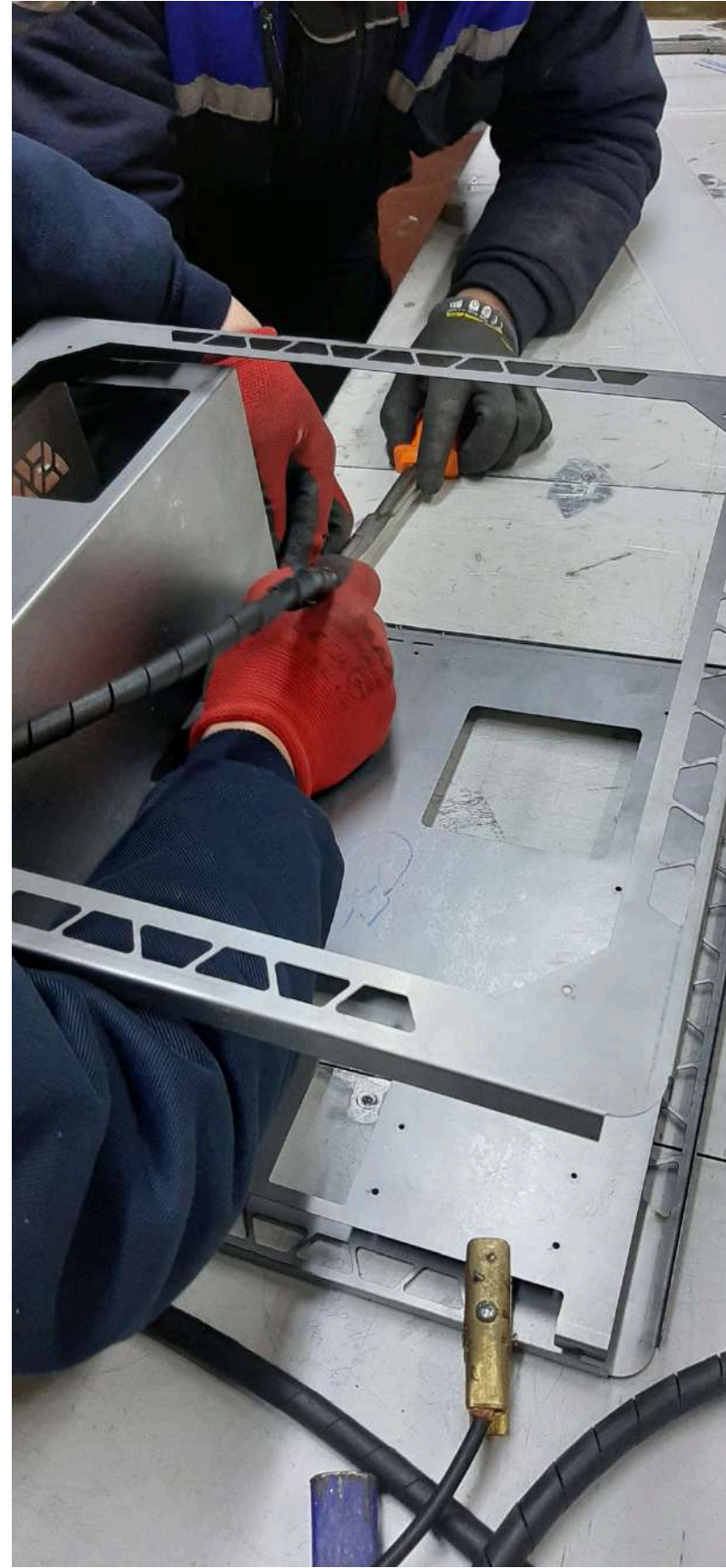
ALPIN WORKSTATION PC STANDS OUT WITH ITS MODERN DESIGN AND PROFESSIONAL-GRADE FUNCTIONALITY. USERS CAN CHOOSE BETWEEN A ROBUST METAL OR STYLISH TEMPERED GLASS SIDE PANEL, OFFERING BOTH DURABILITY AND AESTHETICS. THE ADVANCED CABLE MANAGEMENT SYSTEM ENSURES A CLEAN AND EFFICIENT SETUP. WITH FLEXIBLE STORAGE OPTIONS, IT SUPPORTS FOUR EASILY REMOVABLE 3.5" HDDS AND BOTTOM-MOUNTED 2.5" SSDS. THE LOWER SECTION IS SPECIFICALLY DESIGNED TO ACCOMMODATE HIGH-PERFORMANCE COOLING FANS, PROVIDING SUPERIOR AIRFLOW FOR STABLE AND EFFICIENT OPERATION.

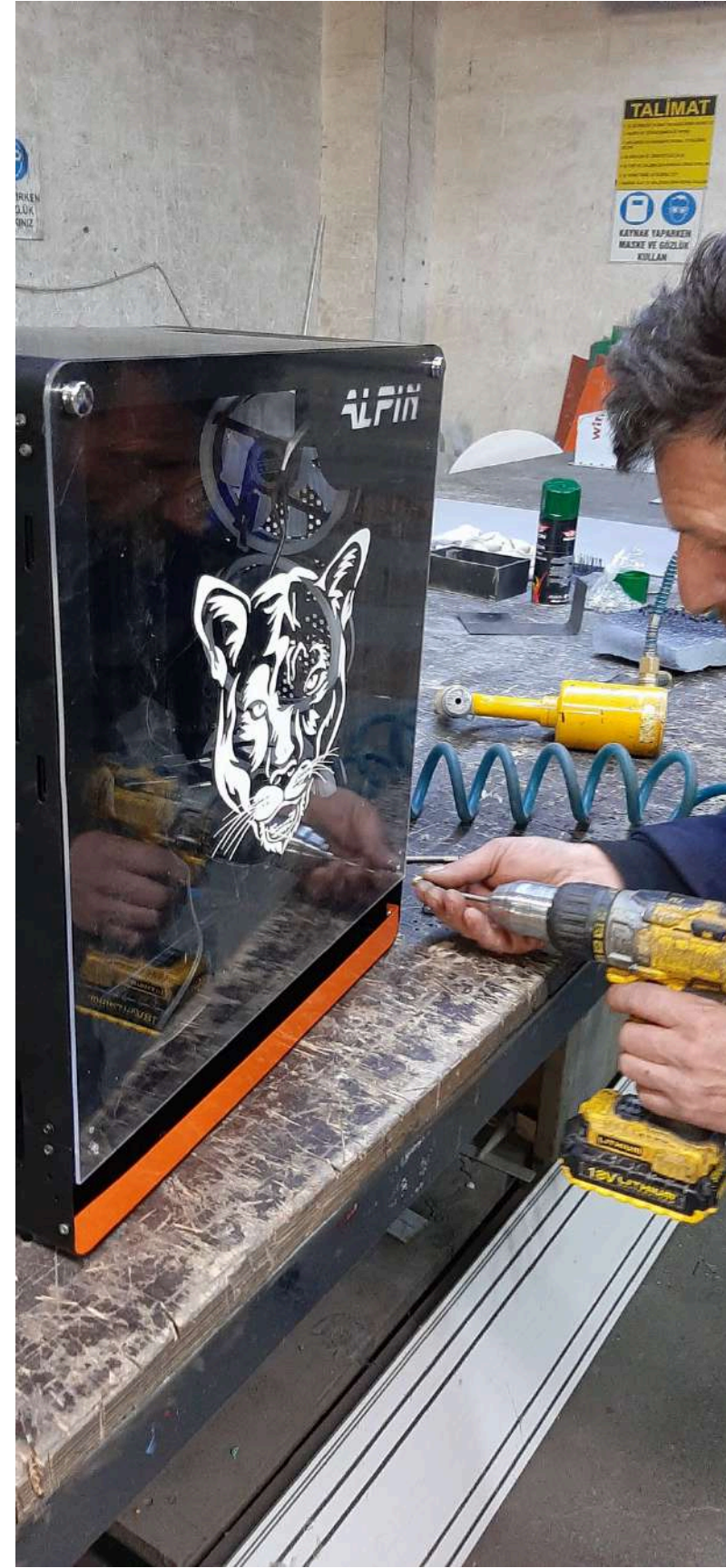


PROTOTYPE PRODUCTION

IN THE PROTOTYPE PHASE OF THE COMPUTER CASES I DESIGNED, I USED 0.8 MM AND 1 MM DKP SHEET METAL FOR LASER CUTTING, PRESS BRAKE BENDING, AND SPOT WELDING. I SUPERVISED ELECTROSTATIC POWDER COATING AND WORKED ON MECHANICAL COMPATIBILITY AND ASSEMBLY. ADDITIONALLY, I INTEGRATED A UV-PRINTED PLEXIGLASS PANEL, USB PANEL, FAN, AND LIGHTING TO ENHANCE BOTH FUNCTIONALITY AND AESTHETICS.







THANK YOU!

www.murathansertel.com