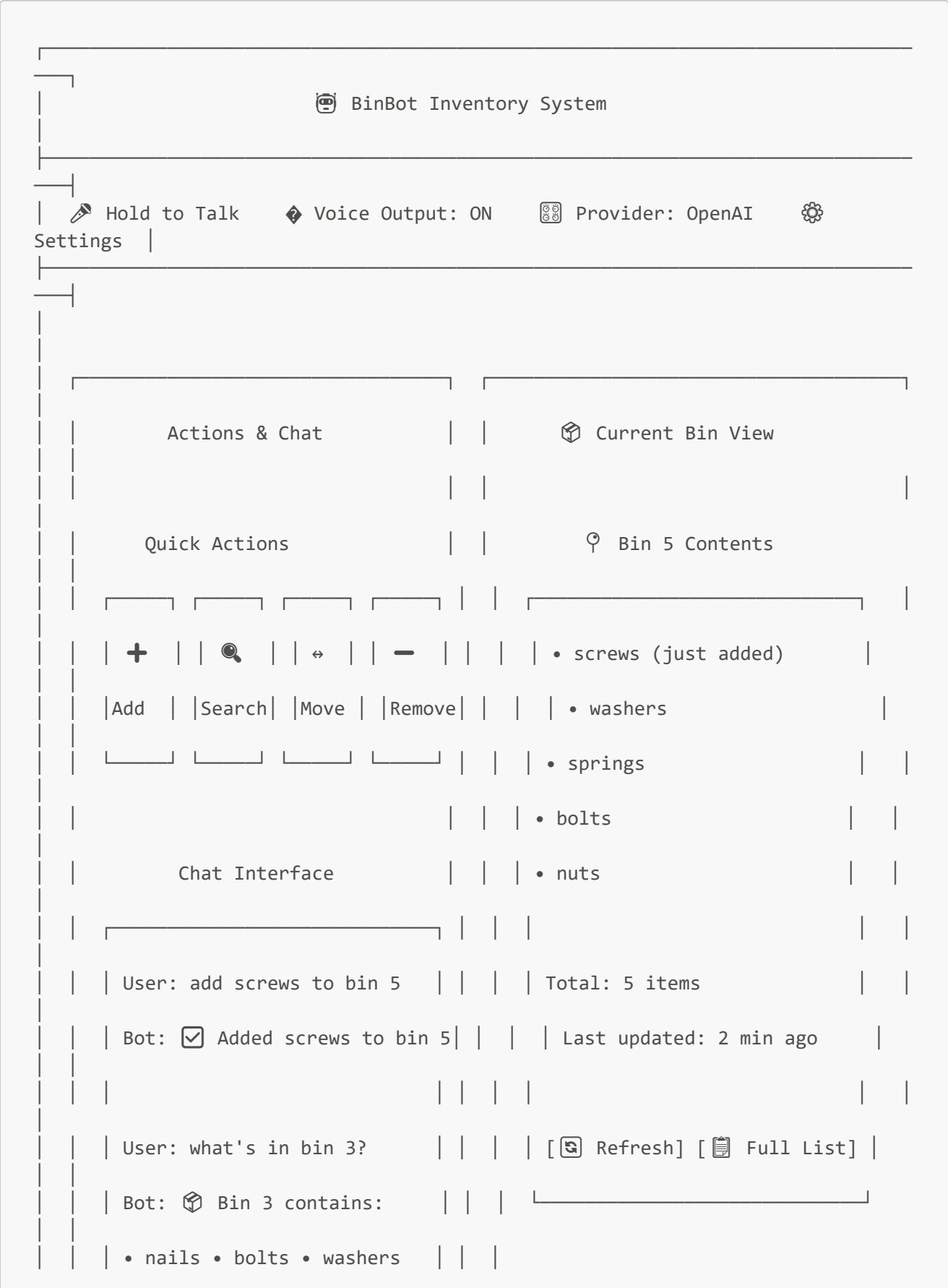


BinBot UI Wireframe Design

Layout Overview





Component Details

1. Header Section

- **Title:** "🤖 BinBot Inventory System"
- **Style:** Large, prominent branding
- **Color:** Primary brand color

2. Voice Controls Bar

- **PTT Button:** "Hold to Talk" - Press and hold to activate voice input
- **Voice Output Toggle:** ON/OFF switch for voice responses with speaker icon
- **Provider Display:** Shows current voice provider (Browser/OpenAI)
- **Settings:** Gear icon for voice configuration

3. Main Content Area (Split Layout)

Left Panel (60% width) - Actions & Chat

- **Quick Actions Section:**
 - 4 large action buttons in grid layout (Add, Search, Move, Remove)
 - Prominent placement at top for easy access
 - Visual icons with clear labels
- **Chat Interface:**
 - Scrollable message history below actions
 - User messages: Right-aligned, blue background
 - Bot responses: Left-aligned, gray background
 - Timestamps on hover, auto-scroll to bottom
- **Input Area:**
 - Large text input with placeholder at bottom
 - PTT button for voice input (press and hold)
 - Send button (Enter key also works)
 - Voice and text input work together seamlessly

Right Panel (40% width) - Current Bin View

- **Current Bin Contents:** Primary focus showing live view of active bin
 - Shows up to 5 items with newest/changed items highlighted
 - Refresh button to update contents
 - "Full List" button to see all items in modal
 - Total item count and last updated timestamp
 - Auto-updates when operations affect the displayed bin
- **Current Context:** Shows session state and working bin
- **Bin Quick Stats:** Overview statistics (total bins, most active, etc.)

4. Bottom Status Area

- **Recent Activity Bar:** Horizontal scrolling list of last few operations
- **System Status Strip:** Compact status indicators for database, AI, voice
- **Session Info:** Active session time and total item count
- **All information condensed into 2 horizontal strips for space efficiency**

5. Current Bin Contents Panel (Right Panel)

- **Dynamic Updates:** Automatically shows contents of the most recently accessed bin
- **Context Awareness:** Updates when user adds/removes/moves items to/from the displayed bin
- **Visual Indicators:**
 - Recently added items show "(just added)" annotation
 - Recently modified items are highlighted
 - Items that were just moved show "(moved from bin X)" temporarily
- **Interactive Elements:**
 - Refresh button to manually update contents
 - Full List button opens modal with complete bin inventory
 - Click on item name to search for similar items
- **Smart Behavior:**
 - Persists across page refreshes (remembers last bin)
 - Shows "No bin accessed yet" message on first visit
 - Handles empty bins gracefully with "Bin X is empty" message

6. Footer

- **Help Text:** Example commands
- **Keyboard Shortcuts:** Hints for power users

Modal Dialogs


Quick Add Modal

Add New Item

Item Name: [_____]

Bin Number: [____]

Description: [_____]


 Add Image (Optional)


[Cancel]


[Add Item]


Search Results Modal

Search Results

 Found 3 items for "screws":

 Bin 3: screws (95% match)

 Bin 7: wood screws (87% match)

 Bin 2: machine screws (82% match)

[Close Results]

Disambiguation Modal

Multiple Items Found



Which item did you mean?

- o screws in bin 3 (95% match)
- o screws in bin 7 (87% match)
- o wood screws in bin 2 (75% match)

[Cancel] [Select Item]

Full Bin Contents Modal

Bin 5 - Complete Contents

 Filter: [_____]  Refresh

 All Items (5 total):

- screws (just added) - Added 2 min ago
- washers - Added 1 day ago
- springs - Added 3 days ago
- bolts - Added 1 week ago
- nuts - Added 1 week ago

 Bin Statistics:


- Total Items: 5
- Last Activity: 2 minutes ago
- Most Common: Hardware items


 Quick Actions:


[ Add Item] [ Search Similar] [ Move All]

[Close]


Voice Settings Modal

 Voice Settings

 Voice Input (PTT):
☐ Enabled ☐ Disabled
Shortcut: [Spacebar ▼]
☐ Audio feedback on start/stop


 Voice Output:



☐ Enabled ☐ Disabled
Volume: [██████████] 80%
Speed: [██████████] 1.2x

 Voice Provider:

☐ Browser (Free, Fast)
☐ OpenAI (Premium Quality)

OpenAI Voice: [Alloy ▼]
(Nova, Echo, Fable, Onyx, Shimmer)

 Test Voice:

[ Test Input] [ Test Output]

[Reset to Defaults]

[Save Settings]

Responsive Design Notes

Desktop (1200px+)

- Full split layout as shown above
- All panels visible simultaneously

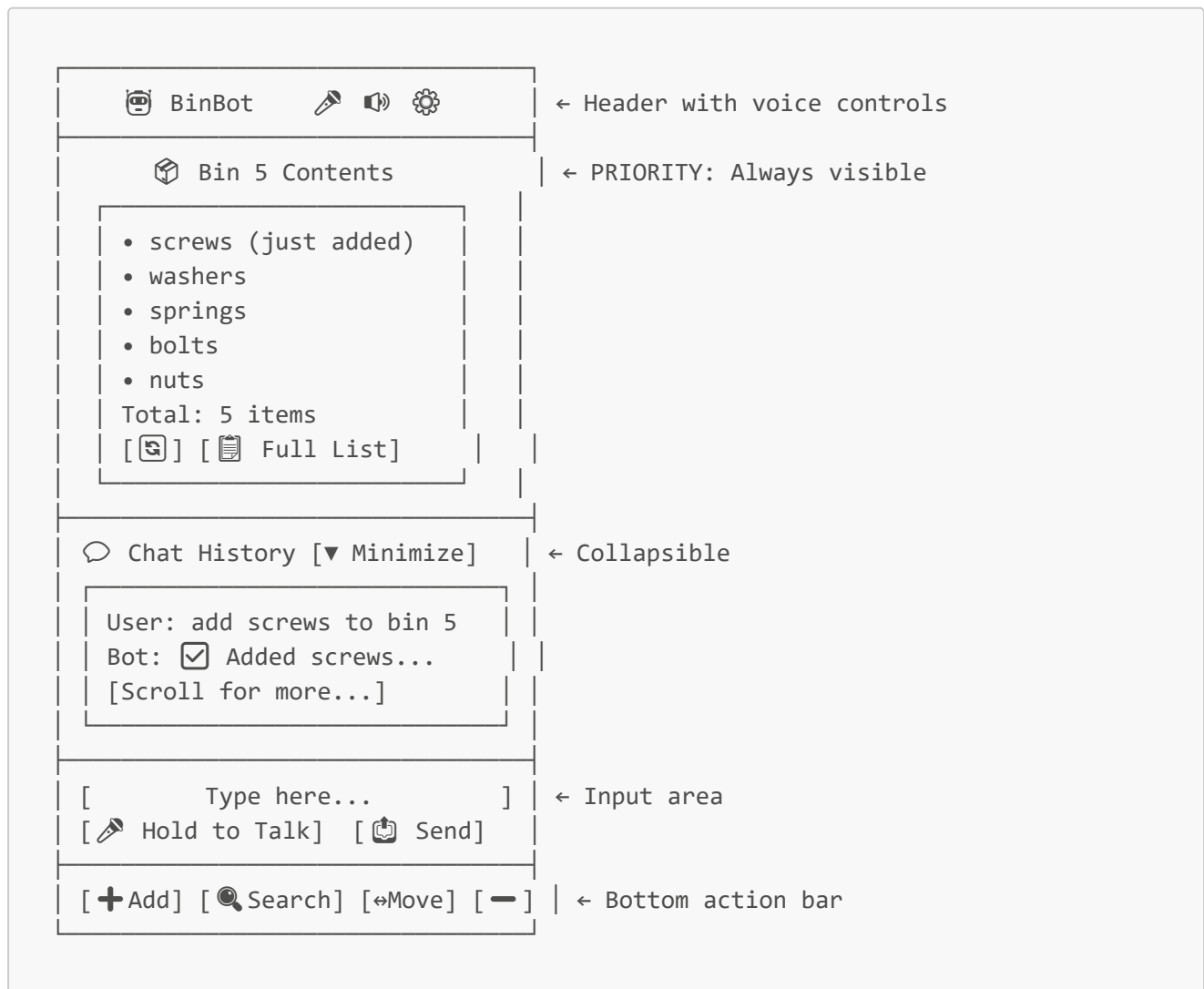
Tablet (768px - 1199px)

- Stack panels vertically
- Chat on top, info panel below
- Collapsible sections

Mobile (< 768px)

- **Priority Layout:** Current bin contents prominently displayed at top
- **Sticky Bin View:** Current bin info always visible while scrolling
- **Collapsible Chat:** Chat history can be minimized to save space
- **Bottom Actions:** Quick action buttons in bottom navigation bar
- **Voice-First:** PTT button prominent and easily accessible
- **Swipe Navigation:** Swipe between bin view, chat, and actions

Mobile Layout Wireframe



Mobile-Specific Features

Current Bin Priority

- **Always Visible:** Bin contents stay at top, never hidden
- **Sticky Header:** Bin name and item count remain visible while scrolling
- **Quick Refresh:** Pull-to-refresh gesture updates bin contents
- **Visual Emphasis:** Larger text and icons for bin contents

Space-Efficient Design

- **Collapsible Sections:** Chat history can be minimized when not needed
- **Swipe Gestures:** Swipe left/right to switch between active bins
- **Bottom Sheet:** Full bin contents modal slides up from bottom
- **Compact Actions:** Action buttons optimized for thumb navigation

Touch-Optimized Interactions

- **Large PTT Button:** Easy to press and hold with thumb

- **Voice-First Flow:** Voice input prioritized over typing on small screens
- **Haptic Feedback:** Vibration confirms PTT activation and actions
- **One-Handed Use:** All primary functions accessible with thumb

Color Scheme Suggestions

Primary Colors

- **Brand Blue:** #2563eb (buttons, links)
- **Success Green:** #10b981 (success messages)
- **Warning Orange:** #f59e0b (warnings)
- **Error Red:** #ef4444 (errors)

Background Colors

- **Main Background:** #f8fafc (light gray)
- **Panel Background:** #ffffff (white)
- **Chat User:** #dbeafe (light blue)
- **Chat Bot:** #f1f5f9 (light gray)

Text Colors

- **Primary Text:** #1f2937 (dark gray)
- **Secondary Text:** #6b7280 (medium gray)
- **Muted Text:** #9ca3af (light gray)


Interactive Elements

Voice Interaction Design

Push-to-Talk (PTT) Behavior

1. **Ready State:** Gray microphone button with "Hold to Talk" text
2. **Active State:** Red pulsing microphone while held down, "Listening..." text
3. **Processing State:** Blue spinning microphone, "Processing..." text
4. **Error State:** Red microphone with X, error message displayed

Voice Output Control

- **Toggle Button:** Speaker icon with ON/OFF state clearly visible in header
- **Visual Feedback:** When voice output is OFF, responses show  icon
- **User Preference:** Setting persists across sessions
- **Quick Access:** Toggle available in both header and settings

PTT Implementation Details

- **Desktop:** Mouse down/up on PTT button or spacebar hold
- **Mobile:** Touch and hold gesture on PTT button

- **Keyboard Shortcut:** Spacebar (when not focused in text input)
- **Visual Feedback:** Button changes color and shows recording animation
- **Audio Feedback:** Optional beep on start/stop (configurable in settings)

Button States

- **Default:** Subtle shadow, hover lift
- **Hover:** Slight scale increase
- **Active:** Pressed appearance
- **Disabled:** Grayed out, no interaction

Loading States

- **Chat:** Typing indicator with dots
- **Search:** Spinner in results area
- **Voice:** Waveform animation

Accessibility Features

Keyboard Navigation

- Tab through all interactive elements
- Enter to activate buttons
- Escape to close modals
- Arrow keys for selection lists

Screen Reader Support

- Proper ARIA labels
- Live regions for dynamic content
- Semantic HTML structure
- Alt text for all icons

Voice Accessibility

- Voice commands work without mouse
- Audio feedback for all actions
- Configurable speech rate/voice

Technical Implementation Notes

Framework Suggestions

- **CSS Framework:** Tailwind CSS for rapid styling
- **Icons:** Heroicons or Lucide for consistency
- **Animations:** CSS transitions + Framer Motion for complex animations
- **Responsive:** Mobile-first approach

Performance Considerations

- Lazy load chat history
- Debounce search input
- Cache recent operations
- Optimize voice processing

Would you like me to modify any aspects of this wireframe or create additional detailed views for specific components?