Sports Bar TV Controller - Fresh Installation Test Report

Test Date: October 7, 2025

Test Environment: Clean Debian 12 (Bookworm) sandbox

Repository: dfultonthebar/Sports-Bar-TV-Controller **Branch Tested:** main (after merging PR #111)

Executive Summary

The fresh installation test revealed both **successes** and **critical issues** that need to be addressed before the one-line installer can be considered production-ready.

Successes

- PR #111 (Al Chat Tools) successfully merged to main
- System dependencies installed correctly
- · Node.js, Python, ADB, and libCEC all working
- NPM dependencies installed successfully (252 packages)
- isolated-vm v6.0.1 installed correctly (critical for AI tools)
- Al tools library files present and accessible
- Security configuration files in place
- Development server starts successfully

X Critical Issues Found

1. Installation Script Bug: npm Not Available to Service User

• Severity: HIGH

• Impact: Installation fails during npm install step

• Root Cause: Node.js installed via nvm is not in the sportsbar user's PATH

• Error: bash: line 1: npm: command not found

• Exit Code: 127

Fix Required: The install.sh script needs to either:

- Install Node.js globally (not via nvm), OR
- Add npm to the sportsbar user's PATH, OR
- Run npm install with explicit PATH

2. Build Failure: Missing Component Files

• Severity: HIGH

• Impact: Production build fails, only dev mode works

- Missing Components:
- @/components/directv/DiscoveryPanel
- @/components/directv/BoxList
- @/components/directv/ChannelGuide
- @/components/firecube/DiscoveryPanel
- @/components/firecube/DeviceList

Status: These files DO exist in the repository but webpack cannot resolve them during build.

3. Al Tools API Route Not Accessible

• Severity: MEDIUM

• Impact: Al chat tools cannot be tested via API

• Issue: /api/ai/tool-chat returns 404 despite file existing

• Root Cause: Hybrid Pages/App Router configuration issue or compilation error

• File Location: src/app/api/ai/tool-chat/route.ts (9.6KB, exists)

Detailed Test Results

1. System Requirements 🔽

OS: Debian GNU/Linux 12 (bookworm)

Architecture: x86_64

Disk Space: 307GB available

Memory: 61GB total

2. Dependency Installation 🔽

Dependency	Version	Status
Node.js	v22.14.0	✓ Installed
npm	10.9.2	✓ Installed
Python	3.11.6	✓ Installed
ADB	1.0.41	✓ Installed
libCEC	6.0.2-5	✓ Installed
SQLite	3.40.1	✓ Installed
isolated-vm	6.0.1	✓ Installed

3. Repository Cloning 🔽

- Repository cloned to /opt/sports-bar-tv-controller
- Ownership set to sportsbar:sportsbar
- Latest commit includes AI tools merge (75a49fd)

4. NPM Dependencies 🔽

Total Packages: 252

Installation **Time**: ~5 seconds **Key** Dependencies **Verified**:

✓ isolated-vm (AI code execution)

next (framework)

react (UI)

@ai-sdk/openai (AI integration)

5. Al Tools Files 🔽

All Al tools files successfully included in merge:

Core Framework:

- ✓ src/lib/ai-tools/types.ts
- ✓ src/lib/ai-tools/index.ts
- ✓ src/lib/ai-tools/file-system-tools.ts
- ✓ src/lib/ai-tools/code-execution-tools.ts
- src/lib/ai-tools/logger.ts

Security Layer:

- ✓ src/lib/ai-tools/security/config.ts
- ✓ src/lib/ai-tools/security/validator.ts
- ✓ src/lib/ai-tools/security/sandbox.ts

API Route:

- ✓ src/app/api/ai/tool-chat/route.ts (9.6KB)

Configuration:

- ✓ ai-tools-config.json (security settings)
- ✓ INSTALL AI TOOLS.md (documentation)

6. Component Testing

File System Access 🗸

Test file created: /opt/sports-bar-tv-controller/temp/test-file.txt
Content: "Test content from installation verification"
Status: ✓ SUCCESS

Python Execution <a>V

Python execution test: SUCCESS Python version: Python 3.11.6 Status: WORKING

JavaScript Execution (isolated-vm) 🔽

☑ isolated-vm loaded successfully Version: 6.0.1 Status: ☑ WORKING

7. Application Server

Development Mode 🔽

Server Status: Running
Port: 3001 (3000 was in use)
Startup Time: ~1.3 seconds
Status: ✓ OPERATIONAL

Production Build

```
Build Command: npm run build

Exit Code: 1

Error: Module not found errors for DirectV and FireCube components

Status: X FAILED
```

8. API Endpoint Testing

Health Check 🔽

```
GET http://localhost:3001/
Response: 404 (expected for root, server is responding)
Status: ✓ SERVER RESPONDING
```

Al Tools API X

```
POST http://localhost:3001/api/ai/tool-chat
Response: 404 Not Found
Expected: 200 with AI response
Status: NOT ACCESSIBLE
```

Security Configuration

The AI tools security configuration is properly set up:

```
"filesystem": {
    "allowedBasePaths": ["./src", "./public", "./logs", "./temp"],
    "blockedPaths": ["./node_modules", "./.git", "./.env"],
    "maxFileSizeMB": 10
},
"codeExecution": {
    "maxExecutionTimeMs": 30000,
    "maxMemoryMB": 512,
    "allowNetworkAccess": false
}
```

Fire Cube Integration 🔽

Fire Cube integration files from PR #109 are present:

- ADB tools installed and working
- V Fire Cube components exist
- API routes for Fire Cube control present

Recommendations

Immediate Fixes Required

1. Fix Installation Script (HIGH PRIORITY)

```
```bash
Option 1: Install Node.js globally
```

curl -fsSL https://deb.nodesource.com/setup\_20.x | sudo -E bash - sudo apt-get install -y nodejs

# Option 2: Make npm available to sportsbar user sudo In -s /usr/local/nvm/versions/node/v22.14.0/bin/npm /usr/local/bin/npm sudo In -s /usr/local/nvm/versions/node/v22.14.0/bin/node /usr/local/bin/node

#### 1. Fix Build Issues (HIGH PRIORITY)

- Investigate webpack module resolution
- Verify tsconfig.json paths configuration
- Check for case sensitivity issues in imports

#### 2. Fix AI Tools API Route (MEDIUM PRIORITY)

- Debug why App Router route returns 404
- Check for TypeScript compilation errors
- Verify middleware isn't blocking the route

## **Testing Recommendations**

#### 1. Create Automated Test Suite

- Unit tests for AI tools
- Integration tests for API endpoints
- End-to-end installation tests

#### 2. Add Installation Verification Script

- Check all dependencies post-install
- Verify API endpoints are accessible
- Test basic functionality

#### 3. Improve Error Handling

- Better error messages in install script
- Rollback capability on failure
- Detailed logging

## Conclusion

The Sports Bar TV Controller installation includes all the necessary components for the Al chat tools feature, and the core dependencies are working correctly. However, **the installation script has a critical bug** that prevents successful automated installation, and **the production build fails** due to missing component resolution.

# 

- All files and dependencies present
- V Development mode works
- X Automated installation fails
- X Production build fails
- X Al tools API not accessible

#### **Recommended Actions:**

- 1. Fix the install.sh script to handle npm PATH correctly
- 2. Resolve the webpack build errors for production deployment

- 3. Debug the AI tools API route 404 issue
- 4. **Test the complete flow** after fixes
- 5. **Create automated tests** to prevent regression

Test Conducted By: Abacus.Al Agent

**Test Duration:** ∼15 minutes

#### **Files Generated:**

- /tmp/sportsbar-test-install/installation.log
- /tmp/npm-install.log
- /tmp/dev-server.log
- /tmp/test-ai-tools.py