Starbeam PCB Assembly Guide

This guide provides instructions for completing the Starbeam PCB assembly after the components have been manufactured and attached. You can source the necessary parts from various suppliers, but the provided links offer decent price points. **It is crucial to obtain the exact specified parts, especially for the display and USB-C module.**

Required Components:

- **ESP32-Wroom-32D:**
  - https://amzn.to/3YR1noR
- **SSD1306 128x64 0.96-inch Display:**
  - https://amzn.to/4lONdP9
- **NRF24 Radios (x5) for 2.4GHz:**
  - https://amzn.to/4iBofjl
- **CC1101 Radios (x2) for 433MHz:**
  - https://amzn.to/4iuopZH
- **USB-C Module:**
  - https://amzn.to/4lKZ5BL

A video guide for the soldering setup will be added to the download drive if you require assistance.

Software Setup & Code Upload:

1. **Download Arduino IDE:**
   - Get it here: https://www.arduino.cc/en/software/
2. **Install Arduino IDE:**
   - Refer to the installation guide:
   - https://docs.arduino.cc/software/ide-v2/tutorials/getting-started/ide-v2-downloading-and-installing/
3. **Open the Code:**
   - Extract the starbeam_code_V1.zip file.
   - Extract SmartRC-CC1101-Driver-Lib2 2.zip & add it to your Documents/Adruino/libraries/ folder. This must be added to use the 2nd CC1101 radio module!
   - Open the starbeam_final.ino file. This will automatically open the code in Arduino IDE.
4. **Upload Code to ESP32:**
   - Upload the code to your ESP32 microcontroller using Arduino IDE.
   - *Note: Videos on uploading code and using Arduino IDE are available in the Hakr Hardware Club (https://whop.com/little-hakr).*

Final Steps:

1. Attach the antennas that correspond to your desired setup.

This is an advanced project but certainly achievable! If you encounter any confusion or need help with the setup, please reach out.