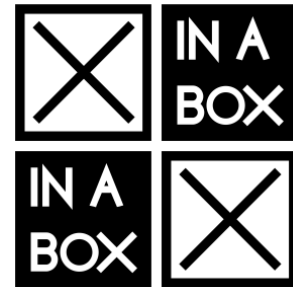


# XinaBox Satellite Build Checklist



## CW01 Programming

- ☐ Switch Positions of the IP01. [B and DCE].
- ☐ Download latest firmware from GitHub (<https://github.com/xinabox/Satellite-Playground/releases>).
- ☐ XINABOX firmware is for Ground-Station.
- ☐ XSAT firmware is for Satellite.

## CR03 and RL13

- ☐ The CR03 uses a SMA male antenna.
- ☐ The CR13 uses a UFL antenna.
- ☐ Connect both antenna to their respective radios before programming.

## CR03 Programming

- ☐ Switch Positions of the IP01. [A and DCE].
- ☐ Download latest firmware from GitHub (<https://github.com/xinabox/Satellite-Playground/releases>).
- ☐ The CR03 is a 4-layer board PCB, ensure that the connector sits snug on the PCB. If not use another connector.

## CW01 Radio Identifiers

- ☐ The Satellite and Ground-Station ID's may not be the same.
- ☐ Selection of a valid Ground-Station ID (1-255). This ID must not overlap with other participants in the workshop.
- ☐ Selection of a valid Satellite ID (1-255). This ID must not overlap with other participants in the workshop.

## CW01 Captive Portal

- ☐ Configure the ground-station CW01 before the satellite CW01.
- ☐ Assignment of a unique name to your satellite.
- ☐ Assignment of the satellite and ground-station ID's selected.
- ☐ Assignment of organization name.
- ☐ The satellite captive portal only requires the assignment of the ID's.
- ☐ Usage of the Blynk App for viewing data on your mobile device is optional.
- ☐ Method of data collection can be either Wi-Fi or IP01. Selection of the IP01 mode will require additional assistance from your facilitator.

## System Test

- ☐ Power down both CW01's.
- ☐ Build complete ground-station circuit.
- ☐ Build complete satellite circuit.
- ☐ Power up both CW01's.
- ☐ Information previously entered will be loaded from memory no need to reconfigure.
- ☐ Once booted the Blue LED on the satellite will start flashing when communication takes place.

## CW01 error codes

Code	Description
E100	SW01 error Cause: Faulty connector or sensor.
E101	SL01 error Cause: Faulty connector or sensor.
E102	SI01 error Cause: Faulty connector or sensor.
E103	SN01 error Cause: Faulty connector or sensor.
E200	Blynk Connection Fail Cause: Unable to connect to link.xinabox.cc on port 80 or 8442.
E201	Blynk Auth Token error Cause: AUTH token invalid or not entered.
E300	MQTT Broker Connection Fail Cause: Unable to connect to mqtt.xinabox.cc on port 80 or 1883.
E301	MQTT Broker Publish Fail Cause: Poor internet connection or WiFi disconnected on CW01.
E400	Captive Portal Index Invalid Cause: Entered Index is longer than 20 characters, index is not alpha-numeric or contains spaces.
E401	Captive Portal Longitude Invalid Cause: Format of longitude is not in degrees.
E402	Captive Portal Latitude Invalid Cause: Format of longitude is not in degrees.
E403	Captive Portal Altitude Invalid Cause: Altitude unit (e.g ft) is added to the input. Altitude must be given in meters.