



Activity 9.3: Signal Strength

Task 1: Experimental Set-Up

- ☒ Continuing with the set-up from the last activity
- ☒ Connect the Transmit LunaSat
- ☒ Open the "RF_Transmit_Text" sketch from Activity 9.1
- ☒ Upload the sketch and re-launch the serial monitor
- ☒ Verify Transmit LunaSat is outputting the correct text
- ☒ Leave connected to the computer
- ☒ Select the port for the Receive LunaSat
- ☒ Open the Serial Monitor
- ☒ Verify you are receiving the message from the Transmit LunaSat
- ☒ Please note if Transmit LunaSat's Red LED is blinking
- ☒ Please note if Receive LunaSat's Blue LED is blinking
- ☒ Confirm that the RSSI (Return Signal Strength Indicator) value is printed

```
Waiting for Data
Data received
Message: Hello from team 11
Return Signal Strength Indicator: -115.00
```

Task 2: Conduct the Experiment

- ☒ Fill out the table below, moving Transmit LunaSat away from the Receive LunaSat in the corresponding increments
- ☒ Verify your Team's ID is correct before recording your results

Distance (in.)	RSSI Value
1	-114
6	-116
12	-124

How does the RSSI value change when you change the orientation of the LunaSat?
If the LunaSats are directed exactly at each other then the signal is strongest.
We checked that LunaSats communicate up too 4m