

This document provides instructions for installing the 8266 WiFi module with integrated RC522 RFID module. Note that this configuration supersedes the previous process utilizing the MFRC522 RFID reader.

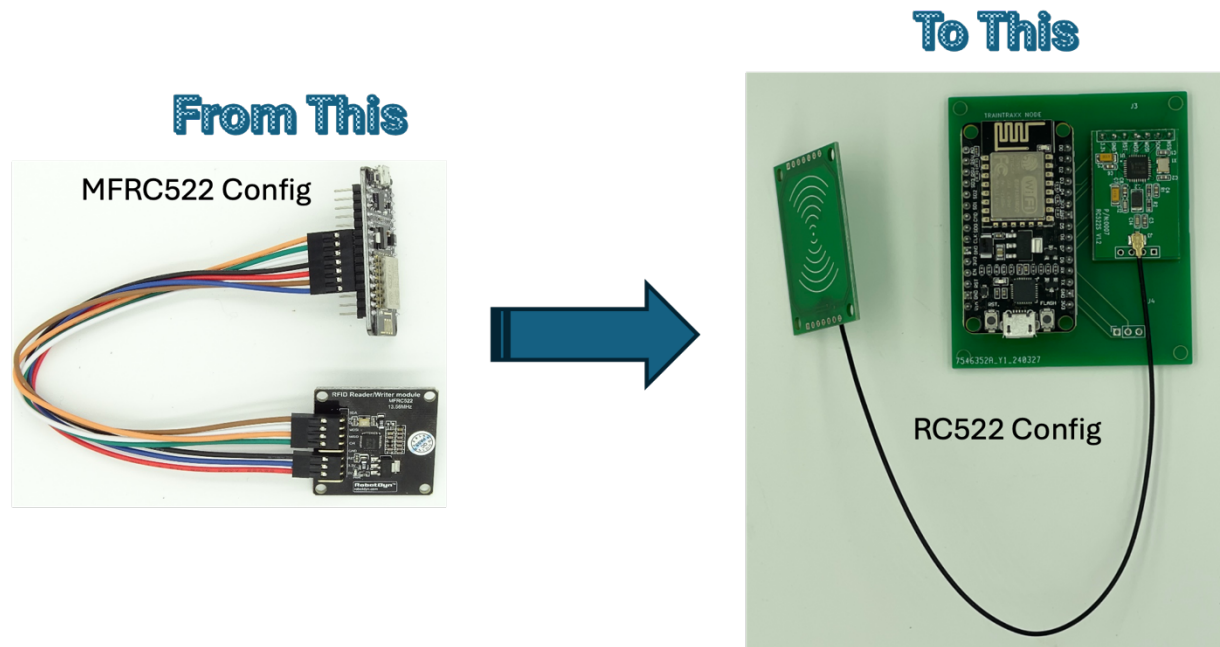


Figure 1

1. Layout Preparation (Surface)

- 1.1. Determine the optimal location for placing the reader/antenna.
- 1.2. if using cork or any other material for the roadbed, use the template to outline the antenna's location.



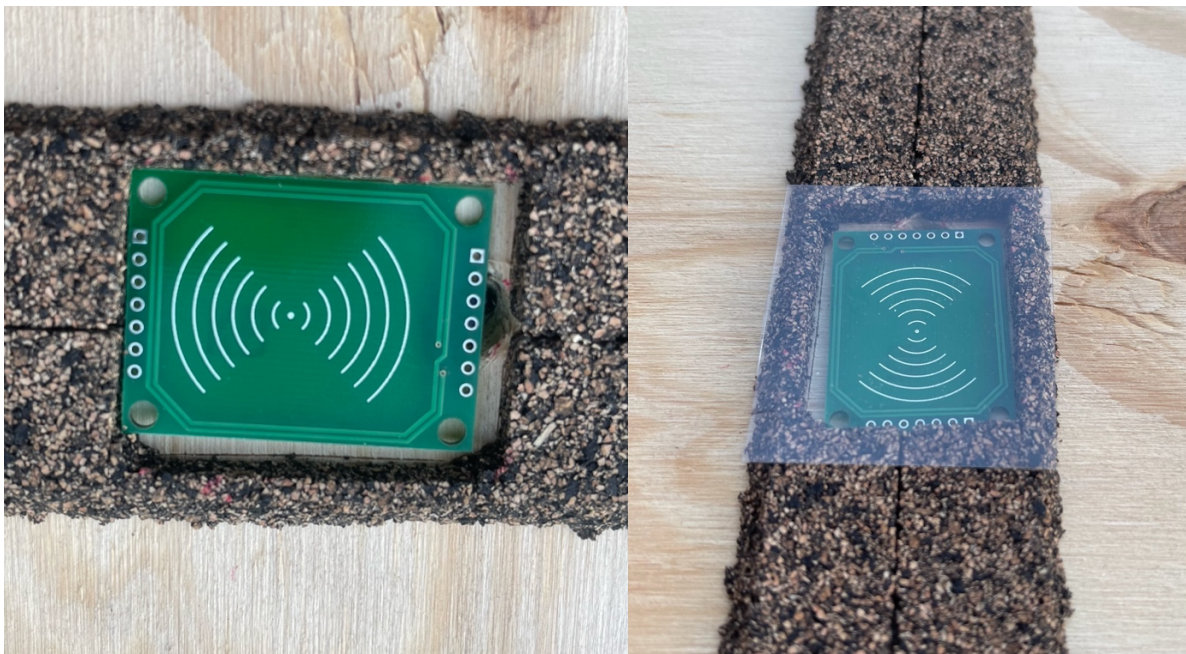
- 1.3. Cut away the cork or material to accommodate the antenna placement.
- 1.4. Position the template over the cut area and mark the spot for drilling the hole.

- 1.5. Use a ¼" drill bit to create a hole from the bottom of the mark to the top of the roadbed, ensuring ample space for attaching the coax cable to the antenna without kinking.

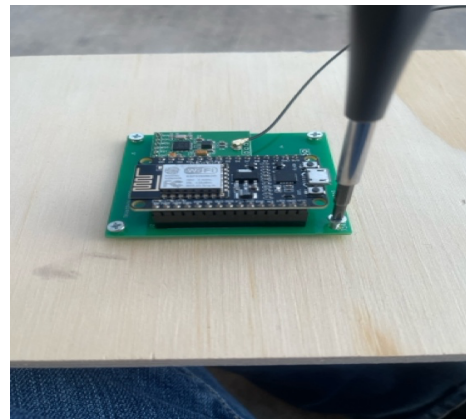
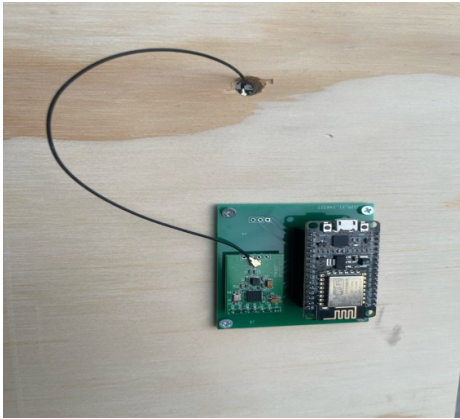


- 1.6. With the RFID reader cable attached underneath the layout, feed it up through the drilled hole and connect it to the antenna, ensuring the antenna lays flat against the surface without kinking the RF cable.

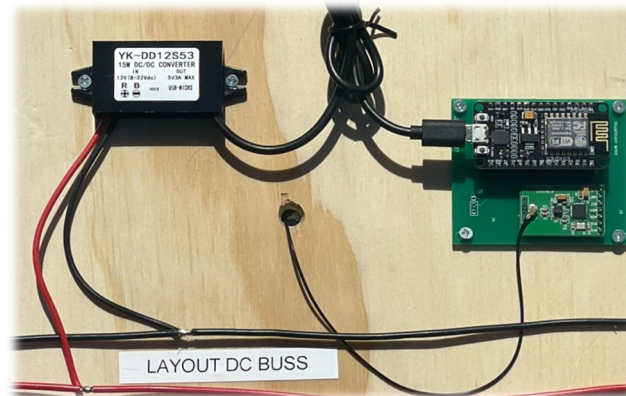
- 1.7. Cover the antenna with the plastic ballast cover, noting that covering the reader with ballast does not affect its reading capabilities.



1.8. Underneath the layout attach the dangling RFID node with the 4 screws, as shown below. Be sure not to tighten any of the screws.



1.9. Fix the 12v to 5v DC converter to the board and connect its micro USB port to the 8266 WiFi module.



1.10. Connect the red and black wire of the DC converter to the layouts DC power buss.

Upon powering the DC buss, the WiFi module's LED will begin blinking blue. When a tag is passed over the antenna, the blinking LED will momentarily pause, indicating successful tag reading.

Additionally, there are three soldering locations on the board for attaching a multi-colored LED to display the reader's synchronization process, which is covered in another document.