

Risk Table

5			5		
4			1		
3		3			
2			6		
1	2	4			
	1	2	3	4	5

X Axis: Probability

Y Axis: Consequence

Green -Low (monitor periodically)

Yellow - Medium (action must be taken to correct risk)

Red - High (Mission success is jeopardized, immediate action necessary)

Risks:

1. Software Fails (3,4)
2. Weather Interference (1,1)
3. Base Station Fails (2,3)
4. RFID tag cannot block signal (2,1)
5. Pi Nodes fail to transmit and receive (3,5)
6. Nodes encounter background noise from rogue signals (3,2)

Addressing Red Risks:

In order to address the failure of our software to do its necessary tasks, we would have to take the software back to the drawing board and either rewrite parts of or all the code. Although this risk isn't extremely likely, it is important to consider that it is a logical possibility and that we should be prepared for it to happen. We implemented a time for bug testing and code repair in our timeline to counter this problem preventing us from completing our senior project on time.

For the hardware this becomes more of a risk and hence the consequence designated a five. The group at this point will have two courses of action for addressing Pi node failure. The first fix, and by the far the easier one, is switching out the Raspberry Pi as perhaps the transmitter and receiver may be broken. However, if this risk is investigated and it is our approach of the hardware itself, a backup of new reliable hardware would have to be established. This can come in the form of wi-fi signals or separate Bluetooth emitters.