

Team #:	P17665	Team Name:	Rotating Dynamometer
Proposed Date:	2/21/17	Document Owner:	Brian Coren
Revision #:	4		

Data Transmission		Signal Range		<h1>S6 Test Plan</h1>					IV. RAW DATA ACQUISITION				
Date of Test:									Distance	Linking?			
Performed By:									25	yes/no	yes		
Tested By:									50	yes/no	yes		
Concluded Condition of meeting Engineering Requirement				Meets Marginal Value					75	yes/no	yes		
I. TESTING SPECIFICATION													
Specification Number	Importance	Source	Function	Specification (Metric)	Unit of Measure	Minimum Value	Nominal Value	Ideal Value					
S6	3	CR 1.2	Wireless Data Transmission Rang	distance	feet	50	100	200					
									150	yes/no	yes		
									200	yes/no	no		
II. EQUIPMENT REQUIRED													
Specification Number	Equipment or Instrumentation required												
S6	HC-06 Bluetooth Module model BC417												
III. DATA COLLECTION STRATEGY													
Specification Number	Data acquisition strategy												
S6	The object of this test is to determine the max range of the bluetooth antenna. Establish connection to the computer at different distance.												
III. TESTING FLOWCHART													
<pre> graph TD A[Link bluetooth to computer at normal shop hours] --> B[Repeat previous step at different distances] </pre>													
V. RESULTS													
<ol style="list-style-type: none"> 1. Steady stream of data packets with no loss at 0ft-100ft range. 2. Some packet loss/lag near 140ft-150ft range. 3. Hardly any information received at 200ft range 													
VI. CONCLUSION													
This test was carried out in the machine shop (while active) and in the perpendicular hallway. In both scenarios, the bluetooth module was able to consistently transmit data up until the 150ft range, which is considerably over our nominal value. Our bluetooth transmission will be able to meet our engineering requirement.													