

## Test Case # 4: Wire Speed Test

<b>Test Writers:</b> Branden Driver						
<b>Test Case Name:</b>		Wire Speed Encoder Test #1			<b>Test ID #:</b>	3MP-Wire-01
<b>Description:</b>		Measures the actual wire speed in correlation with the wire speed encoder. This test will allow for the construction of the lookup table to be used with the main program.			<b>Type:</b>	
<b>Tester Information</b>						
<b>Name of Tester:</b>					<b>Date:</b>	
<b>Hardware Ver:</b>		Display V1.0, Main Board V1.5, Sensor V1.0			<b>Time:</b>	
<b>Setup:</b>		Only Welder will be used, not CNC. Remove Cover of welder to ensure wire feed is properly set up. Welding will not be taking place, so be sure ground wire is not connected.				
Step	Action	Expected Result	Pass	Fail	N/A	Comments
1	Open wire feed program	Program should open				
2	Set program to run for one second	program should only run for one second				
3	Cut wire extruded from nozzle as short as possible	Very little wire should be showing				
4	Set wire feed speed nozzle to home setting	Wire feed should be at lowest setting				
5	Turn on welder	Welder should turn on				
6	Run test program	Welder should feed wire for exactly one second				
7	Turn off welder	Welder should turn off				
8	Cut wire extruded from nozzle as short as possible	Very little wire should be showing				
9	Measure length of cut wire and record value	Value determined for specified wire feed setting				
10	Repeat steps 1-9 for various values of wire speed	Determine if wire feed is linear. If so, interpolate for all wire feed speeds				
<b>Overall Test Result:</b>						