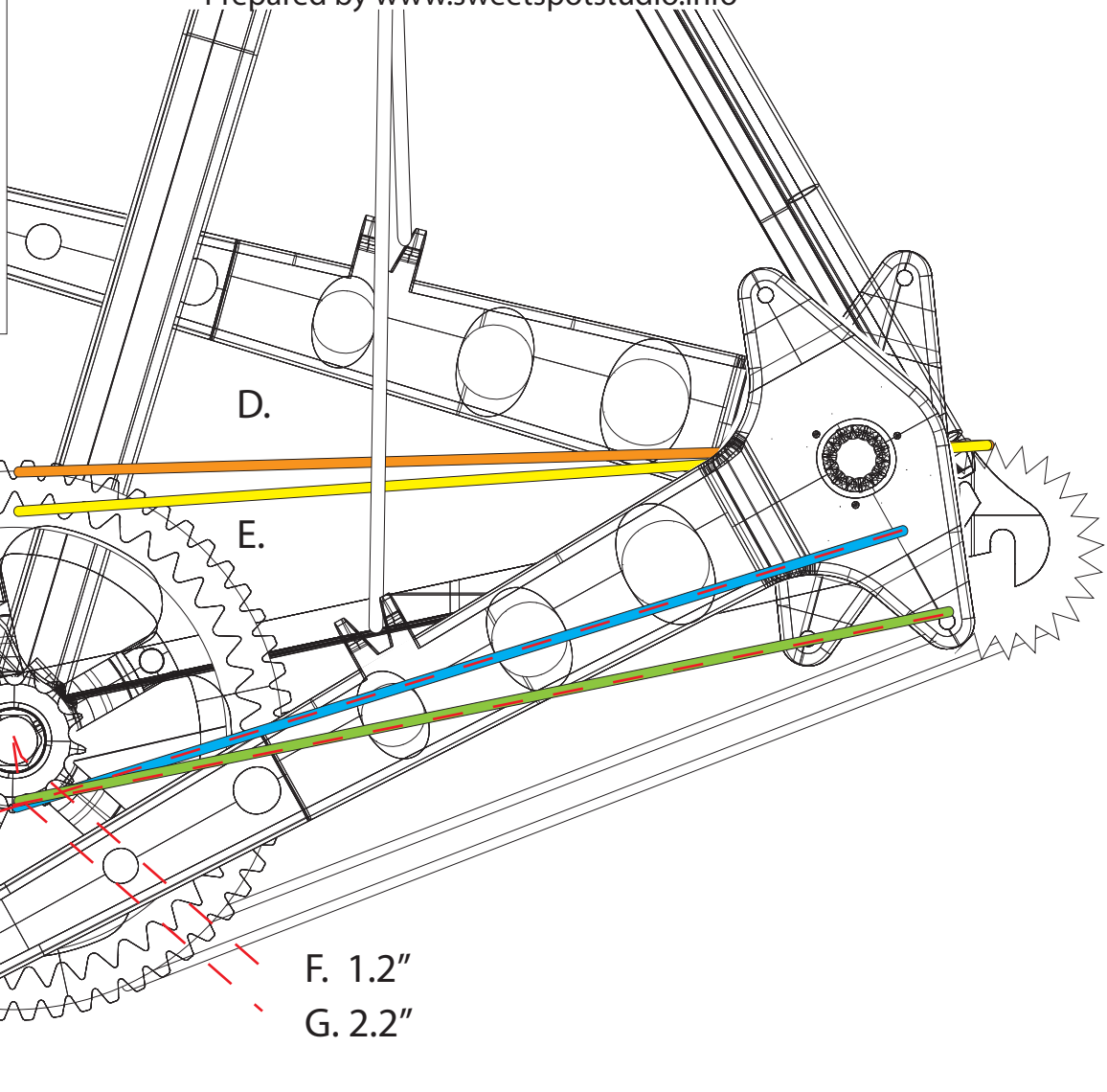
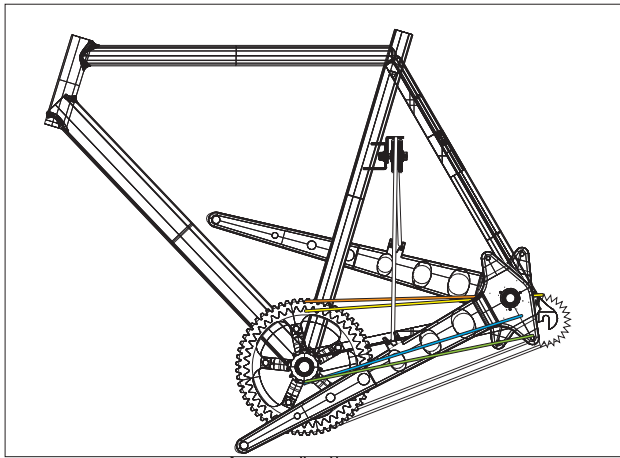


# Torque Analysis For Pedal Bike

Prepared by [www.sweetspotstudio.info](http://www.sweetspotstudio.info)



NOTES: Chain weight and pedal weight are taken into consideration because the chain must be in tension for weight to distribute through the mechanism.

## RAW Data

WILSON STEPPER ARM + 2lbs	. Chain Weight tension(slop)	2.5 lbs	5lbs	7.5lbs
Measured from point C. 1.5"	13 lbs	49	76	NA
Measured from point B. 3.0"	2.1 lbs	13	27	37
Measured from point B. 3.0" w/ pdal arm at top of stroke	9 lbs	29	47	63
Measured from point B. 3.0" w/ pdal arm at bottom of stroke	2 lbs	11	22.5	35
Measured from point D Outer Chain Ring /"A" wt to Point G Wilson COG	6.64 lbs	12.2	17	21.4
Measured from point D Outer Chain Ring/ "A" wt to Point F , .6" Wilson Cog.	+.0	1	2.56	4.4
Measured from point E, Inner Chain Ring/"A" wt to Point F Wilson COG	3.8 lbs	7.16	12.84	18.24
Measured from point E, Inner Chain Ring /"A" wt to Point G Wilson COG	.44	1.38	3.84	5.84
<b>STANDARD PEDAL (6.67")</b> +.04 lbs				
Measured with pedal at 45degrees with outer chain ring.	1.44	3.2	5.92	8.24
Measured with pedal at 90degrees	1.44	3.92	7.36	11
Measured with pedal at 45degrees with inner chain ring.	1.44	3.28	7.6	10.16
Measured with pedal at 90degrees	1.44	5.12	10.28	14.2

# Interpreted Data

	STANDARD PEDAL	WILSON STEPPER
	OUTPUT ONTO REAR TIRE FROM OUTER CHAIN RING	OUTPUT ONTO REAR TIRE FROM OUTER CHAIN RING
5 LBS HUNG ON PEDAL	7.36 lbs	17 lbs
		OUTPUT ONTO WILSON COG (from "B" 3" from ctr pivot)
5 LBS HUNG ON PEDAL	NA	47 lbs
		OUTPUT ONTO WILSON COG (from "C" 1.5" from ctr pivot)
5 LBS HUNG ON PEDAL	NA	76lbs

