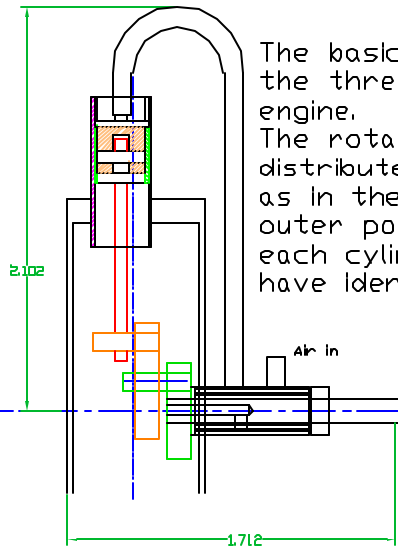
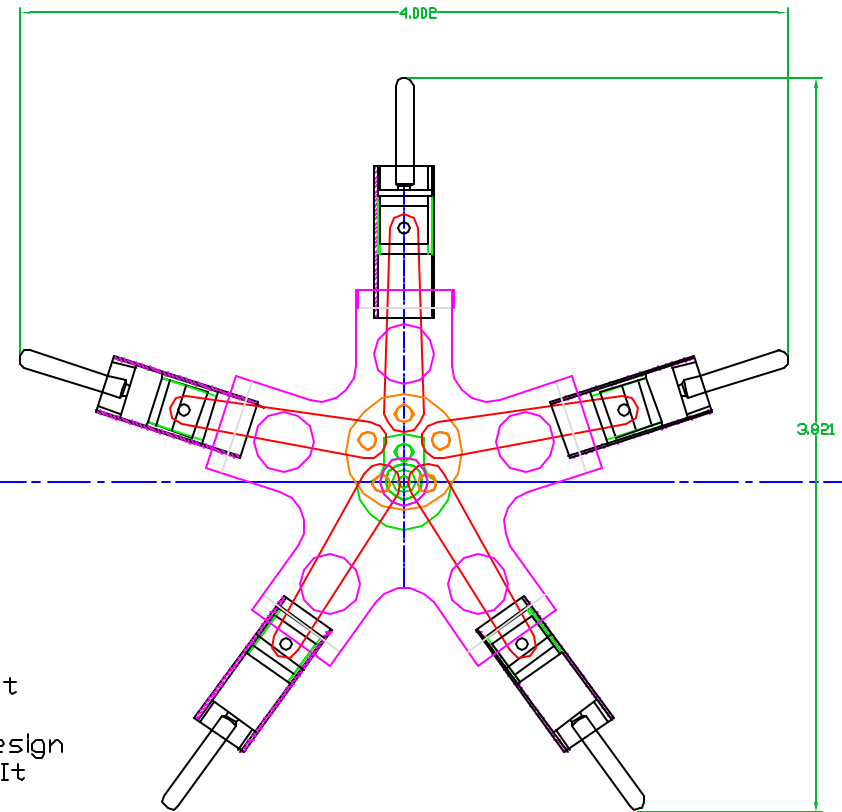


The cylinders are in line and a master connecting rod and slave arms are used. Cylinder mounting blocks are soldered between the main side plates.



The basic parts are the same as in the three cylinder version of this engine. The rotary valve has a groove added to distribute air around to all cylinders as in the 3 cylinder version. The outer portion has a cylinder port for each cylinder. The valve system will have identical timing for each cylinder.



Tube engine is built out of standard hobby shop tubing and hardware store items. The design requires no lathe or mill but they may help improve the appearance. The one cylinder version was inspired by a 3 cylinder radial design by Joseph S. Ott, in the Model Craftsman Magazine May 1933. It uses a rotary valve to pressurize and exhaust the cylinder. The bore and stroke were reduced and parts were modified for hobby metals. These pages show how to make a 5 cylinder radial version. A 7 cylinder, or more, could also be made. The rotary valve opens about 30 degrees after TDC and remains open for about 100 degrees. The exhaust is open for about 100 degrees in the middle of the up stroke. This type of valve produces more power and uses more air than the ball and pin design used in CO2 engines. With 5 cylinders this engine should be able to start it self when air pressure is applied.

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Assembly: <b>Tube CO2, 5 Cylinder Radial</b>	
Title: <b>Overview</b>	
Date: 1/16/2005	Drawing:
Revision: 1.1	<b>T5_CO2-01</b>