

I think that if in the Rep Rap project want to do a system for rapid manufacture, then we do not have to discover the boiled water. We have to take systems that are already working and to do reverse engineering, because what we want to create must be accessible to most people, easier, practical and cheaper than currently exists.

As you said, probably the system multi –nozzles printer inkjet system is very complicated to do, but I think we could take the idea of contour crafting with a robotic arm to make the outline design (layer profiles and possibly some hatching patterns, in a similar way like the SIS method: <http://www-bcf.usc.edu/~khoshnev/RP/SIS/RP-Journal-2003.pdf>) of the prototype that we want to build, exploiting the property that gives its shovel to define very good surfaces, and use another nozzles filler faster internal parts. It makes no sense and is more expensive, inefficient and time consuming to try to create a prototype with high definition for the inner part. The conceptual idea is first to create the shell and then fill it with more speed. As if you are creating its mold mold. Also, this system could be used to create cast metal molds. Probably not a good method to create high definition small parts in detail, but at some scale could be very useful for creating machines and tools.

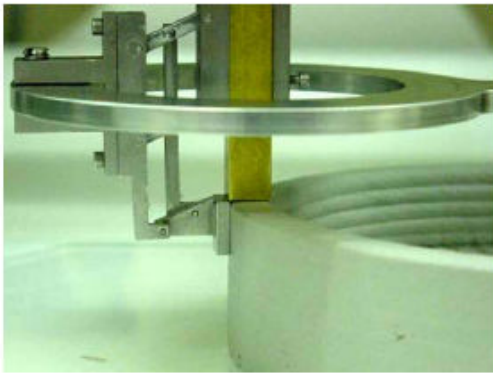


Figura 4

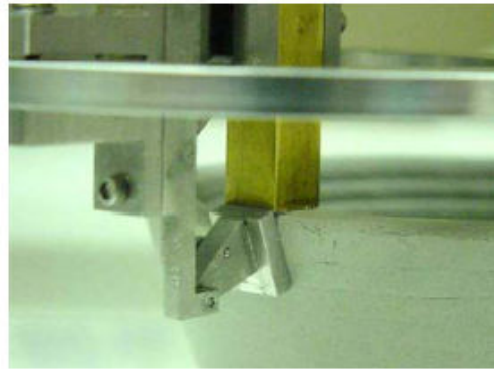
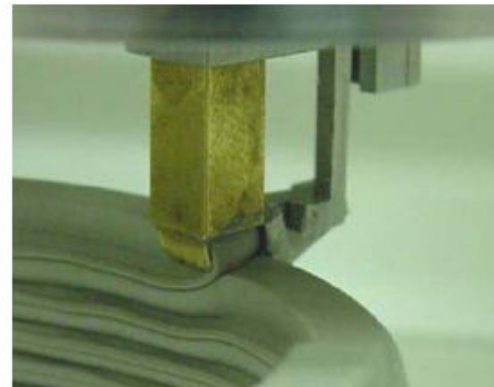
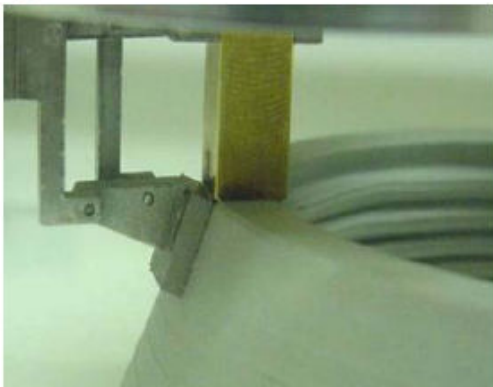


Figura 5



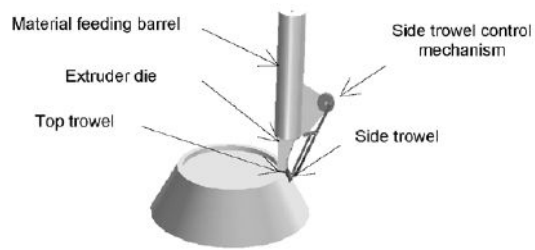


Figura 8. Componentes de la máquina Contour Craft

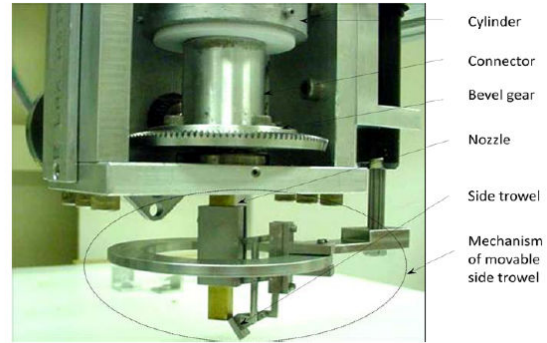


Figura 9. Componentes de la máquina Contour Craft

On the other hand, if you want a design on a smaller scale, has created its own 3D Printer - High Resolution – Homemade,

<http://www.youtube.com/watch?v=snOErpOP5Xk&feature=related>

this technology work with Digital Light Processing (DLP), curing the polymers with UV light:

<http://www.makepartsfast.com/2010/08/983/an-alternative-to-laser-curing-dlp/>

and I think that we could use the same technique for to do Sintering and/or casting of metals using Leds or Lasers.

Thanks and have a good day,

Lalo