1. Turn the machine on with the red dial
2. Give the machine air by turning the yellow handle
3. Clamp your plastic sheet (ABS preferably) down by raising the red handles and fitting it underneath the clamper
4. Pull the heater over the plastic sheet
5. Place the item for the plastic to be formed around on the wooden platform
6. Turn the heater on and wait until your plastic sheet starts to “droop.” Try to do the next 3 steps in quick succession
7. Turn the heater off and push it away from the plastic sheet
8. Turn the vacuum pump on with the black dial
9. Use the black lever to raise the platform until it makes contact with the sheet around the edges
10. Wait until the plastic has cooled and formed around your object, then lower the platform from the sheet
11. Remove your objects, turn the air and machine off
12. Have a great day!
Kinds of plastic you can use:
ABS, Poly-styrene, Polypropylene, Acrylic, and others (check image below for heating instructions)
Most types of plastic can be purchased at Colorado Plastics or online

All Heat times are approximate

Poly-styrene (hips), ABS
(forming difficulty—easy)
.030-.090— Can generally be heated at a very high rate of speed. The oven can be set at a higher intensity of heat 80-90%. **Heat time: 30-60 sec**
.125-.1875— Must be heated slower 70-80% **Heat time:90-150 sec**
.1875-.250— 70-80% **Heat time:120-240 sec**

Polypropylene, Polyethylene, PETG, Acrylic, PVC
(forming difficulty—medium)
.030-.090— Oven percentage 60-70% **Heat time:30-120 sec**
.125-.1875— 60-70% **Heat time:120-240 sec**
.1875-.250— 50-70% **Heat time:180-300 sec**

Polycarbonate, Kydex, Raydel
(forming difficulty—medium/hard)
A lower auxiliary oven is recommended for the forming of these plastics.
.030-.090— Oven percentage 50-70%
.125-.1875— 50-70%
.1875-.250— 50-70%

If you need more information or help, ask one of the TAs for the Vacuum Former’s manual located in one of the cabinets.