CLAIMS:

1. A method for fabricating an object with a computer-controlled additive manufacturing apparatus, the method comprising the steps of:

   moving the apparatus and fabricating at least one first bead to form a first non-planar layer; and

   moving the apparatus and fabricating at least one second bead to form a second non-planar layer at least partially enclosing the first non-planar layer, at least a portion of the at least one second bead abutting and arranged at an angle between 1-179° to at least a portion of the at least one first bead.

2. The method for fabricating an object according to claim 1, wherein the step of fabricating the at least one first bead further comprises fabricating the at least one first bead to form a core of the object, and the step of fabricating the at least one second bead further comprises fabricating the at least one second bead to form a shell of the object at least partially enclosing the core.

3. The method for fabricating an object according to claim 1, wherein the step of fabricating the at least one first bead further comprises fabricating the at least one first bead along a first trajectory, and the step of fabricating the at least one second bead further comprises fabricating the at least one second bead along a second trajectory being different to the first trajectory.

4. The method for fabricating an object according to claim 3, wherein the step of fabricating the at least one second bead further comprises the second trajectory being arranged substantially perpendicular to the first trajectory.

5. The method for fabricating an object according to claim 3, wherein the step of fabricating the at least one second bead further comprises the

second trajectory being arranged in a different plane to the first trajectory.

6. The method for fabricating an object according to claim 1, wherein the apparatus is arranged relative to a surface, and the step of fabricating at least one of the at least one first bead and the at least one second bead further comprises fabricating the at least one respective bead along a notional path having at least a portion extending away from the surface.

7. The method for fabricating an object according to claim 1, wherein the step of fabricating at least one of the at least one first bead and the at least one second bead further comprises fabricating the at least one respective bead to form at least a portion of the respective layer having double curvature.

8. The method for fabricating an object according to claim 1, wherein the step of fabricating at least one of the at least one first bead and the at least one second bead further comprises fabricating the at least one respective bead to form at least a portion of the respective layer having faceted surfaces.