individual. The interchangeability also allows for easy replacement of a component that may be found to be defective or broken.

A health practitioner evaluating an individual, for example a patient, may order at least one of the appropriate heel component or forefoot component from a component list which has a scaled matrix to assist in ordering the correct component. Bench testing may be used to establish the scaled matrix. Therefore, the invention can be made adaptable and suitable depending on many variables.

Any suitable material may be used for the various component parts of this prosthetic foot of the invention. In embodiments, the entire prosthetic foot or any one of the ankle component, the forefoot component, or the heel component may be manufactured from a carbon fiber material. Carbon fiber material achieves the characteristic functions of energy return and modularity. As noted, the forefoot cushion bumper may comprise a urethane, a dense foam, or an electro-responsive material, such as an electrically activated polymer or a piezoelectric material.

The shape of the various component parts is not limited to that described or illustrated herein. Any shape of a component part may be used so long as the purpose for which the invention is intended. One having ordinary skill in the art would be able to identity suitable materials and/or shapes of component parts to employ within the scope of the present invention.

Although the present invention has been described in terms of particular exemplary and alternative embodiments, it is not limited to those embodiments. Alternative embodiments, examples, and modifications which would still be encompassed by the invention may be made by those skilled in the art, particularly in light of the foregoing teachings.

What is claimed is:

1. A modular prosthetic foot, comprising:

an ankle component having a slot in a front part of the ankle component;

a forefoot component comprising a circular part with a rounded top surface and at least one flat side surface, said circular part being connected to a rear part of the forefoot component and being fit into the slot;

a forefoot cushion bumper positioned around the circular part; and

a heel component connected to a rear bottom of the ankle component,

wherein the front part of the ankle component is about 5° to about 25° higher than a rear part of the ankle component with respect to a horizontal axis parallel to a level ground surface when the circular part is set at an angle within the ankle component,

wherein the at least one flat side surface of the circular part comprises a flat front surface that faces towards a front of the forefoot component and a flat back surface that faces towards a back of the forefoot component.

2. The modular prosthetic foot of claim **1**, wherein the front part of the ankle component is about 10° to about 15° higher than the rear part of the ankle component with respect to the horizontal axis parallel to the level ground surface.

3. The modular prosthetic foot of claim **1**, wherein the circular part has a hole extending from the flat front surface to the flat back surface through which a rod in the slot of the ankle component fits.

4. The modular prosthetic foot of claim **1**, wherein the circular part has an indentation in its top surface in which a rod in the ankle component fits.

5. The modular prosthetic foot of claim **1**, wherein the ankle component further comprises an orifice for connection to part of a prosthesis or to a pylon.

6. The modular prosthetic foot of claim **1**, further comprising a microprocessor device located in any component of the modular prosthetic foot.

7. The modular prosthetic foot of claim **1**, wherein the forefoot cushion bumper comprises a microprocessor device for monitoring how a person using the modular prosthetic foot walks.

8. The modular prosthetic foot of claim **1**, wherein said forefoot cushion bumper comprises an electrically activated polymer or a piezoelectric material.

9. The modular prosthetic foot of claim **1**, wherein said forefoot cushion bumper comprises a urethane material.

10. The modular prosthetic foot of claim **1**, wherein said ankle component, said forefoot component, and said heel component comprise a carbon fiber material.

11. The modular prosthetic foot of claim **1**, wherein different forefoot components and different heel components may be interchanged based upon at least one of an individual's height, weight, degree of physical activity, or any combination thereof.

12. The modular prosthetic foot of claim **1**, wherein the circular part simulates an anatomically-based elliptical hinge that everts and inverts.

13. The modular prosthetic foot of claim **1**, wherein the circular part is directly connected to the ankle component by at least one connector comprising a pin, screw, bolt, shaft, adhering compound, or any combination thereof.

14. The modular prosthetic foot of claim **1**, wherein the ankle component, forefoot component, and heel component are three separate components.

15. The modular prosthetic foot of claim **14**, wherein said forefoot component is connected to the front part of the ankle component and said heel component is connected to the rear part of the ankle component.

16. The modular prosthetic foot of claim **1**, wherein the circular part and its angle within the ankle component allow the circular part to pivot, thereby simulating a subtalar joint of a natural foot.

17. The modular prosthetic foot of claim **1**, wherein the circular part comprises a rounded top surface and two flat side surfaces, and pronates and supinates.

18. The modular prosthetic foot of claim **1**, wherein the circular part extends upwardly from the rear part of the forefoot component.

19. The modular prosthetic foot of claim **1**, wherein the ankle component has a planar bottom surface.

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