CLAIMS

1. A pickleball paddle, comprising:

a front surface;

a back surface opposing the front surface;

a core disposed between the front surface and the back surface;

a gap formed in at least a portion of the core;

a first filler disposed within at least a portion of the gap;

a frame disposed about at least a head portion of the pickleball paddle along an edge portion thereof, the frame at least partially disposed between the front surface and the back surface along the edge portion, the frame defining a hollow interior portion; and

a second filler disposed within at least a portion of the hollow interior portion of the frame.

2. The pickleball paddle of claim 1, wherein one or more of the first filler and the second filler include at least one of: a foam material a polymer, a thermoplastic, a thermoset material, a thermoplastic elastomer, an elastomer, a rubber, an expandable material, and pressurized air.

3. The pickleball paddle of any of the preceding claims, wherein the second filler and the first filler are the same material.

4. The pickleball paddle of any of the preceding claims, wherein the second filler and the first filler are different materials.

5. The pickleball paddle of any of the preceding claims, wherein the gap is disposed, at least in part, between the frame and the core.

6. The pickleball paddle of claim 5, wherein the gap borders the frame.

7. The pickleball paddle of any of the preceding claims, wherein the frame surrounds the entire pickleball paddle.

8. The pickleball paddle of any of the preceding claims, wherein the frame include carbon fiber.

9. The pickleball paddle of any of the preceding claims, wherein the frame is a hollow cuboid structure.

10. The pickleball paddle of claim 9, wherein the hollow cuboid structure is formed from a single piece of material.

11. The pickleball paddle of any of the preceding claims, wherein the core at least partially includes a honeycomb structure.

12. The pickleball paddle of any of the preceding claims, further comprising an edge guard covering at least a portion of the frame along at least part of the head portion of the pickleball paddle.

13. A method of manufacturing a pickleball paddle, the method comprising:
forming a core of a pickleball paddle having a head portion and a handle portion;
forming one or more gaps in the core of the pickleball paddle;
inserting a first filler within at least a portion of the one or more gaps;
wrapping a frame about a perimeter of the core; and
affixing both a front surface and a back surface to the core wrapped by the frame.

14. The method of claim 13, wherein the frame defines a hollow interior portion.

15. The method of claim 14, further comprising inserting a second filler within at least a portion of the hollow interior portion of the frame.