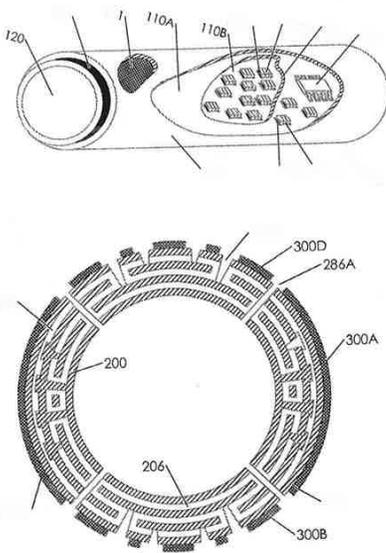




## Non-Planar Printed Circuit Board with Embedded Electronic Components

### INTRODUCTION

A non-planar printed circuit board has an interior surface and an exterior surface. Between the interior surface and exterior surfaces are layers of conductive and dielectric materials. Passive and active electrical components are embedded within the interior and exterior surfaces. A hollow region is defined by the interior surface of the non-planar circuit board. The non-planar printed circuit board is manufactured on a mandrel having a non-planar shape such as, for example, a cylinder or sphere so as to form a hollow, curved non-planar structure.



### CONCEPT

The patented invention is manufactured on a mandrel of a given geometric shape, e.g., a cylinder, such that the interior surface of the circuit board defines an empty, hollow interior region. Electronic components are embedded between the interior surface and an outer surface of the circuit board. The hollow interior is a free-space region whose volume may be utilized for any number of purposes

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### INVENTION OVERVIEW

- Novel laminating multiple conductive layering of components.
- Allows for unlimited designed components in devices.
- U.S. Patent Number: [9,204,547 B2](#)
- Application Number: 13/864,656
- Date of Patent: 1 Dec 2015

### POTENTIAL MARKET

Communications, automotive, smart garments, smart guns, sports applications, entertainment, aerospace, robotics, medical equipment, metering device, media equipment, cameras and camcorders, banking, energy, vehicle computers, radar guns, and lapel communication devices.

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