# Section 2 - System Overview

## Software

## Pathway<sup>™</sup> Liver – Minimally Invasive

**Pathway<sup>TM</sup> Liver** is a software tool designed to aid the surgeon during image-guided procedures. The surgeon uses the system to determine the physical position of surgical instruments relative to preoperative CT or MR images. By utilizing these images intraoperatively, the surgeon can identify and guide the surgical instruments in the safest and most efficient manner, thereby minimizing damage to healthy tissue and ensuring the target disease is completely treated. **Pathway<sup>TM</sup> Liver** is not intended to act as a replacement for the surgeon's judgment; rather, it is designed to be used as a guidance and verification tool.

## Hardware

### System Cart

The Pathfinder System Cart is a mobile workstation that contains the system PC and an uninterruptible power supply (UPS). Pathfinder's image guidance software (*Pathway*<sup>TM</sup> *Liver*) is installed on the system PC and can be controlled through the keyboard and mouse located on the system cart. The UPS enables continuous use of *Explorer*<sup>TM</sup> *Liver* – *Passive Tracking* in the event of disconnection from an electrical outlet. The System Cart also includes a second monitor that allows visualization of the *Pathway*<sup>TM</sup> *Liver* guidance interface by the surgical team without having to connect to the OR's display system.

### **Camera Cart**

The Pathfinder Camera Cart is a mobile unit that houses the position sensor, a camera that enables tracking of surgical instruments in the operating room. The height and angle of the position sensor may be modified according to its position and the space available in the OR. The Camera Cart can connect to the System Cart for transportation purposes.

### Pathfinder Beacon™

The **Pathfinder Beacon<sup>TM</sup>** is a tracked tool that can be used to establish a frame of reference and calibrate other tracked surgical instruments. If used as a frame of reference, the **Pathfinder Beacon<sup>TM</sup>** must be rigidly attached to the operating room bed via retractor setup or other means. This frame of reference allows the bed (and the patient) to be moved during the operation without a loss of tracking accuracy. Used as a calibration tool, the tip of any rigid surgical

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