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(54) **BOARD GAME SYSTEM WITH INTEGRAL DOCKING SYSTEM**

(76) Inventors: **Anthony M. Sisson**, Waynesville, OH (US); **Kenneth J. Detmer, JR.**, Kettering, OH (US)

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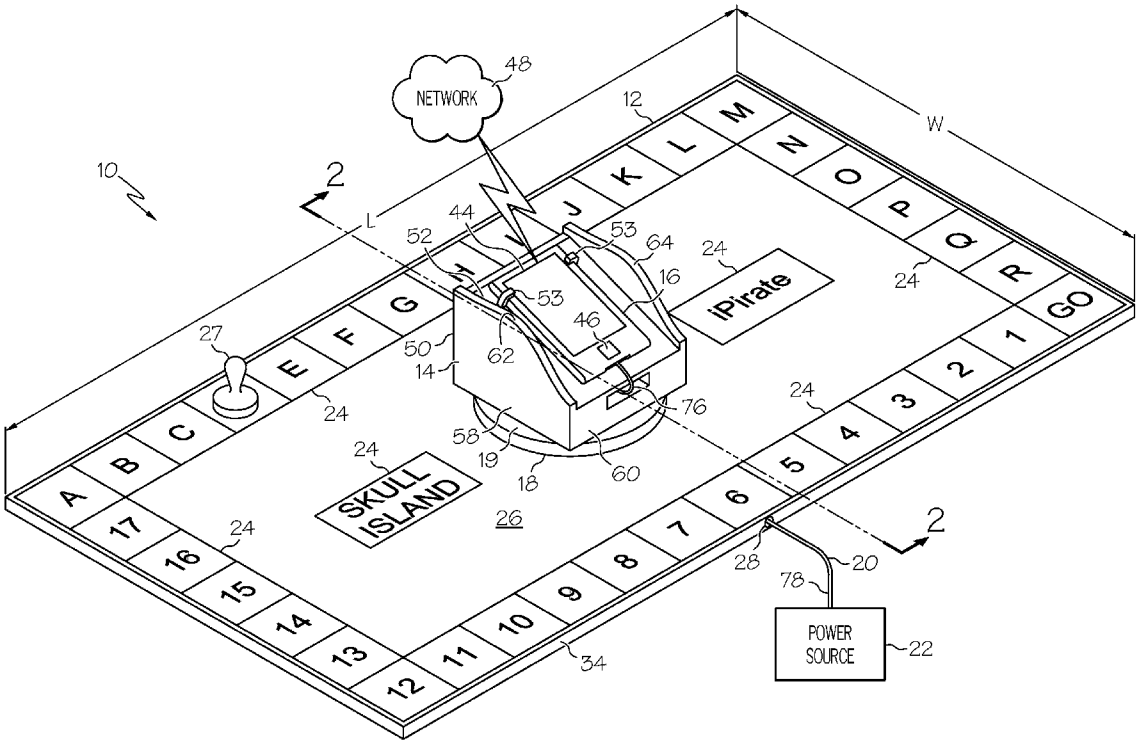
(57) **ABSTRACT**

A board game system including a game board that defines a playing surface, the playing surface being marked with indicia for directing placement of game pieces on the playing surface, and a support structure for supporting a mobile electronic device, the support structure being connected to the game board and rotatable relative to the game board about at least one axis of rotation.



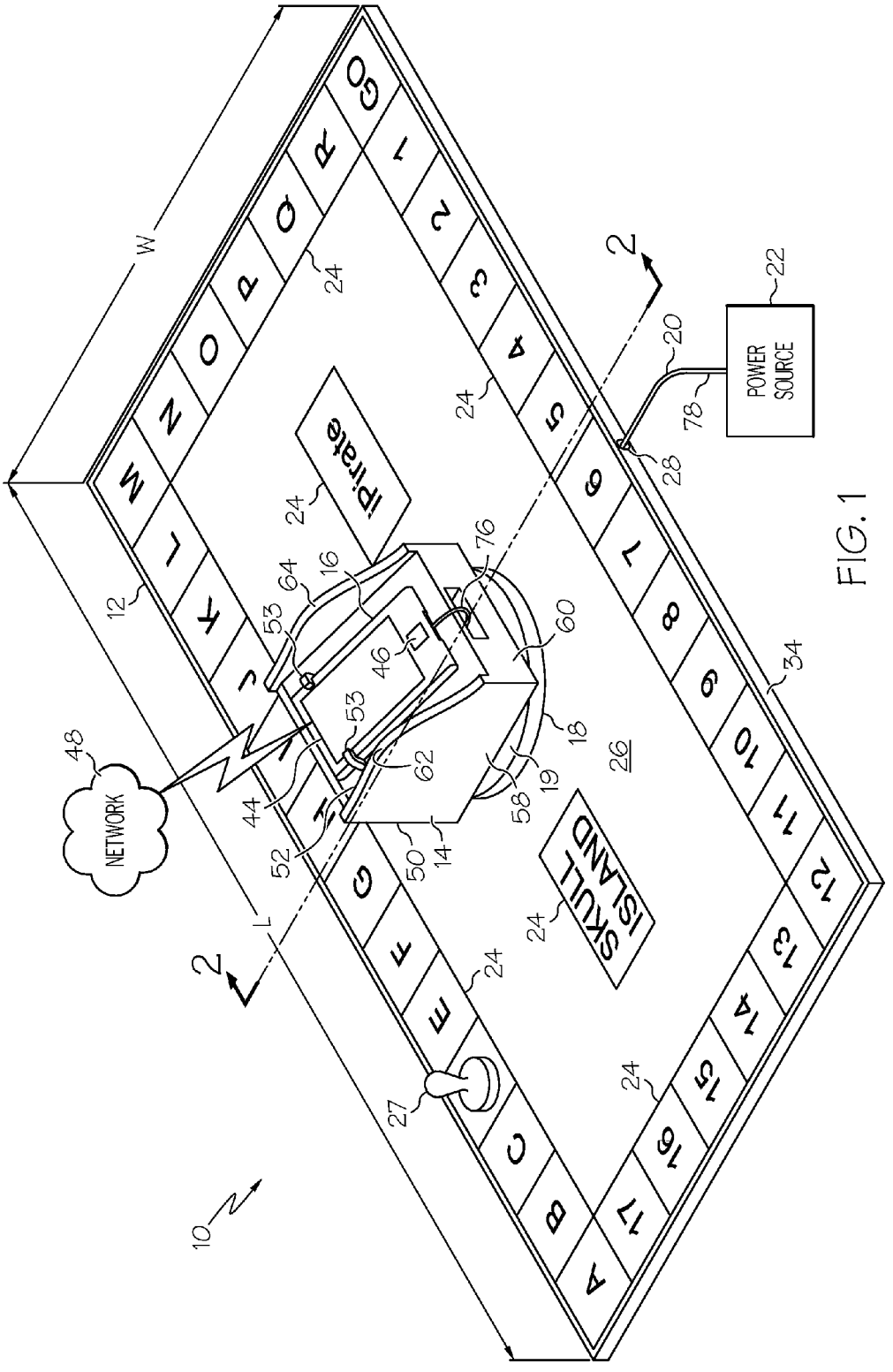

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FIG. 1

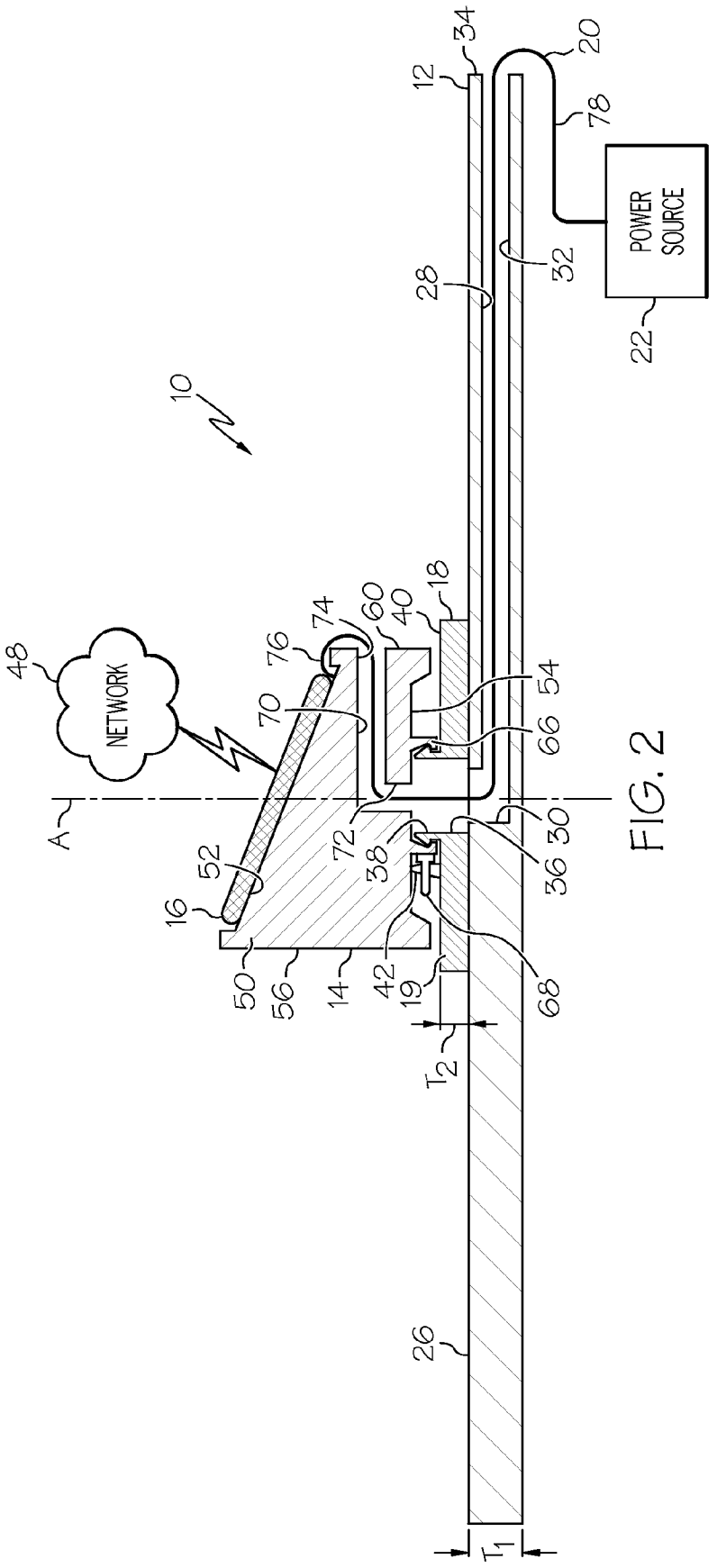
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FIG. 2

BOARD GAME SYSTEM WITH INTEGRAL DOCKING SYSTEM

FIELD

[0001] This application relates to board games and, more particularly, to board games that integrate mobile electronic devices with physical game boards.

BACKGROUND

[0002] Board games traditionally include a physical game board upon which players move game pieces in accordance with a pre-defined set of rules. In some board games, such as CANDY LAND by Hasbro Games, the movement of the game pieces and the overall outcome of the board game is entirely dictated by chance. In other board games, such as the game of chess, the movement of the game pieces and the overall outcome of the board game is entirely dictated by the strategies employed by the players. In yet other board games, such as MONOPOLY by Hasbro Games, a combination of luck and strategy controls the overall outcome.

[0003] Thus, traditional board games have provided families and friends with a source of entertainment for many generations.

[0004] With the advent of modern electronics, many games traditionally played as board games are now played entirely electronically. For example, the game of MONOPOLY can be played entirely electronically using, for example, a computer, wherein the computer displays a virtual game board on the computer screen and directs movement of virtual game pieces on the virtual game board in response to inputs from the players. Inputs from the players are communicated to the computer by way of a user interface, such as a mouse, a joystick or the like.

[0005] Despite the technological advancements made in the field of electronic board games, there still exists a market for traditional board games. Indeed, some game enthusiasts believe that the hands-on, personal interaction experienced while playing a traditional board game cannot be replaced by electronic games.

[0006] Accordingly, those skilled in the art continue to seek new and exciting ways of enhancing the traditional board game experience.

SUMMARY

[0007] In one aspect, the disclosed board game system may include a game board that defines a playing surface, the playing surface being marked with indicia for directing placement of game pieces on the playing surface, and a support structure for supporting a mobile electronic device, the support structure being connected to the game board and rotatable relative to the game board about at least one axis of rotation.

[0008] In another aspect, the disclosed board game system may include a game board that defines a playing surface and a channel, the playing surface being marked with indicia for directing placement of game pieces on the playing surface, the channel extending through the game board below the playing surface, a support structure connected to the game board, the support structure being configured to support a mobile electronic device, and an electrical conductor extending through the channel and the support structure to electrically couple the mobile electronic device to an electrical power source.

[0009] In yet another aspect, the disclosed board game system may include a game board that defines a playing surface and a channel, the playing surface being marked with indicia for directing placement of game pieces on the playing surface, the channel extending through the game board below the playing surface, a support structure connected to the game board and rotatable relative to the game board about at least one axis of rotation, a mobile electronic device mounted on the support structure and an electrical conductor extending through the channel, the electrical conductor including a first end electrically coupled to the mobile electronic device and a second end electrically coupled to an electrical power source.

[0010] Other aspects of the disclosed board game system will become apparent from the following description, the accompanying drawings and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. **1** is a front perspective view of one particular aspect of the disclosed board game system; and

[0012] FIG. **2** is a side elevational view, in section, of the board game system of FIG. **1**.

DETAILED DESCRIPTION

[0013] Referring to FIGS. **1** and **2**, one particular aspect of the disclosed board game system, generally designated **10**, may include a game board **12** and a support structure **14** connected to the game board **12** for integrating a mobile electronic device **16** into the board game system **10**. An optional platform **18** may be positioned between the game board **12** and the support structure **14** to elevate the support structure **14** over the game board **12**. An optional electrical conductor **20**, such as a power cord, may be provided to electrically couple the mobile electronic device **16** to an electrical power source **22** such that the mobile electronic device **16** may be electrically powered and/or electrically charged during game play.

[0014] The mobile electronic device **16** may be a mobile telephone, such as the iPhone® available from Apple, Inc. of Cupertino, Calif., a digital music player, such as the iPod® or iTouch® available from Apple, Inc., a person digital assistant ("PDA"), such as the HP iPAQ® available from Hewlett-Packard Company of Palo Alto, Calif., a mobile computer, such as the iPad™ available from Apple, Inc., or a handheld game console, such as the Nintendo DS® available from Nintendo of America, Inc. Those skilled in the art will appreciate that other mobile electronic devices, such as digital cameras, e-book readers and navigation devices, may also be used without departing from the scope of the present disclosure.

[0015] In one particular implementation, the mobile electronic device **16** may include a display **44** and a user interface **46**, and may be capable of sending and receiving data over a network **48**, such as a wireless local area network, a mobile telecommunications network and/or the internet. Furthermore, the mobile electronic device **16** may include memory capabilities for storing game data. The game data may be stored directly in a memory device (not shown) on the mobile electronic device **16** or the mobile electronic device **16** may communicate the game data to an external memory device by way of the network **48**.

[0016] The game board **12** may be any apparatus or thing that defines a playing surface **26** for playing a board game. The playing surface **26** may be marked with various indicia **24**

for directing placement of game pieces **27** on the playing surface **26** in accordance with the pre-defined set of rules associated with one or more board games. The game board **12** may be formed in various sizes and shapes, and may be a generally two-dimensional game board or a generally three-dimensional game board. The indicia **24**, as well as the arrangement of the indicia **24** on the playing surface **26**, may facilitate playing a particular board game or multiple different board games using the same game board **12**, but applying different rules of play. For example, the game board **12** may be a generally flat, rectangular game board having a length L, a width W and a generally uniform cross-sectional thickness T_1, and the indicia **24** may define a plurality of spaces on the playing surface **26**, wherein at least some of the spaces define a continuous or semi-continuous path.

[0017] The game board **12** may define a channel **28** extending at least partially therethrough. The channel **28** may receive the electrical conductor **20** therein to electrically couple the mobile electronic device **16** with the electrical power source **22** when the mobile electronic device **16** is supported by the support structure **14**. The channel **28** may include an open first end **30** that opens at the playing surface **26** of the game board **12** and an open second end **32** that opens at the side edge **34** of the game board **12**. Therefore, the majority of the channel **28** may be hidden below the playing surface **26** of the game board **12** such that the electrical conductor **20** does not interfere with game play on the playing surface **26**.

[0018] The platform **18** may include a generally rigid body **19** (e.g., a disc) having a second cross-sectional thickness T_2, and may be fixedly connected to the game board **12**. While the platform **18** is shown connected to the game board **12** generally at the center of the game board **12**, the platform **18** (and associated support structure **14**) may be located at various locations on the game board **12** without departing from the scope of the present disclosure.

[0019] The platform **18** may define a vertical channel **36**, which may be in communication with the channel **28** extending through the game board **12** by, for example, aligning the vertical channel **36** with the open first end **30** of the channel **28**. Additionally, the platform **18** may include a circumferential male connection portion **38** extending upward from an upper surface **40** of the platform **18**. The vertical channel **36** may be positioned within the male connection portion **38**. An optional stop **42** may also extend upward from the upper surface **40** of the platform **18** outside of the male connection portion **38**.

[0020] The support structure **14** may be a cradle, a docking station or the like connected to the platform **18** for supporting the mobile electronic device **16** in a desired position (or in various positions) relative to the game board **12**. For example, as shown in FIGS. **1** and **2**, the support structure **14** may support the mobile electronic device **16** such that the mobile electronic device **16** is at a non-zero angle (e.g., 20 to 45 degrees) relative to the game board **12** (or at least one plane defined by the game board **12**). Alternatively, the support structure **14** may support the mobile electronic device **16** such that the mobile electronic device **16** is generally parallel with the game board **12** (or at least one plane defined by the game board **12**).

[0021] In a first implementation, the support structure **14** may be connected to the platform **18** (or directly to the game board **12**) such that the support structure **14** may rotate relative to the platform **18** and the game board **12** about an axis A of rotation. For example, the support structure **14** may rotate 360 degrees relative to the platform **18**. In a second implementation, the support structure **14** may be fixedly connected to the platform **18** (or directly to the game board **12**).

[0022] In one expression of the first implementation, the support structure **14** may include a body **50** having an upper support surface **52**, a lower mating surface **54** and side surfaces **56**, **58**, **60**. The support surface **52** may be recessed in the body **50** and may receive and support the mobile electronic device **16**. As one example, the mobile electronic device **16** may be rested on the support surface **52**. A non-skid material may be provided on the support surface **52** such that the mobile electronic device **16** does not slip off of the support surface **52**, particularly when the support surface **52** is disposed at an angle relative to the game board **12**. Side walls **62**, **64** may extend upward from associated side surfaces **58** to encompass, at least partially, the support surface **52** and, when present, the mobile electronic device **16** supported on the support surface **52**. As another example, the support surface **52** may include fasteners **53**, such as clips, clamps or the like, that may releaseably engage the mobile electronic device **16** to secure the mobile electronic device **16** to the support structure **14**.

[0023] The mating surface **54** of the body **50** of the support structure **14** may define a circumferential female connection portion **66** sized and shaped to receive the male connection portion **38** of the platform **18** therein, thereby releaseably and rotatably coupling the support structure **14** with the platform **18**. Optionally, a protrusion **68** may extend radially outward from the female connection portion **66** to engage the stop **42** of the platform **18**, thereby limiting rotation of the support structure **14** relative to the platform **18** about the axis A of rotation beyond the location of the stop **42**. Those skilled in the art will appreciate that wear on the electrical conductor **20** as a result of rotation of the support structure **14** relative to the game board **12** may be reduced by limiting the extent of such rotation using, for example, the stop **42** and the protrusion **68**.

[0024] Furthermore, the body **50** of the support structure **14** may define a channel **70** extending at least partially therethrough. The channel **70** may include an open first end **72** that opens at the mating surface **54** of the body **50** within the female connection portion **66** and an open second end **74** that opens at the side surface **60** of the body **50**. The open first end **72** of the channel **70** may be aligned with the vertical channel **36** of the platform **18** such that the channel **70** of the body **50** is in communication with the channel **28** extending through the game board **12**.

[0025] Thus, the electrical conductor **20** may extend through the channel **28** in the game board **12**, through the vertical channel **36** in the platform **18** and through the channel **70** in the support structure **14** such that a first end **76** of the electrical conductor **20** may be electrically coupled to the mobile electronic device **16** and a second end **78** of the electrical conductor **20** may be electrically coupled to the electrical power source **22** without interfering with the ability of the support structure **14** to rotate relative to the platform **18** and the game board **12** about the axis A of rotation.

[0026] In a first optional expression, the first end **76** of the electrical conductor **20** may be directly electrically coupled to the mobile electronic device **16**. In a second optional expression, the support structure **14** may be a docking station having an integral electrical connection (not shown), wherein the first end **76** of the electrical conductor **20** may be directly electrically coupled to the integral electrical connection of the

support structure **14** and the mobile electronic device **16** may be directly electrically connected to the integral electrical connection of the support structure **14**. Other techniques for supplying electrical power to the mobile electronic device **16** by way of the disclosed board game system **10** (e.g., wirelessly) may be used without departing from the scope of the present disclosure.

[0027] While rotation of the support structure **14** relative to the game board **12** is discussed above as being achieved by engaging a circumferential female connection portion **66** with a circumferential male connection portion **38** in a ball-and-socket fashion, those skilled in the art will appreciate that various techniques, apparatus and systems may be employed to facilitate rotation of the support structure **14** relative to the game board **12** without departing from the scope of the present disclosure. For example, a lazy Susan-type assembly may be disposed between the support structure **14** and the game board **12** to facilitate relative rotation therebetween.

[0028] Accordingly, the disclosed board game system **10** integrates a mobile electronic device **16** with a physical game board **12**, thereby allowing players to incorporate the mobile electronic device **16** into game play on the game board **12** and, optionally, to supply electrical power to the mobile electronic device **16** during game play. Furthermore, the optional rotation of the support structure relative to the game board **12** may provide all (or several) players sitting around the game board **12** with the opportunity to view the mobile electronic device **16** during game play to, for example, read instructions from the display **44** of the mobile electronic device **16**.

[0029] At this point, those skilled in the art will appreciate that the integration of a mobile electronic device **16** with a physical game board **12** may allow players to perform certain game activities, such as receiving instructions and random number generation, on the mobile electronic device **16**, while moving physical game pieces **27** over the physical game board **12**. Furthermore, game play may be stopped and saved by the mobile electronic device **16**, as discussed above, thereby allowing the players to stow the game board **12** and associated game pieces **27**. Then, at a later time, the mobile electronic device **16** may provide the players with instructions for re-assembling the game board **12** and associated game pieces **27** to resume play. Still furthermore, game play statistics may be saved in memory by the mobile electronic device **16**.

[0030] The integration of a mobile electronic device **16** with a physical game board **12** may also allow players to update an existing game or to play a new game using the same game board **12**. For example, the pre-determined rules of a given game may be stored in the mobile electronic device **16**. The mobile electronic device **16** may provide instructions for placing and moving game pieces **27** over the game board **12** based on the stored rules in response to inputs provided to the mobile electronic device **16** by the players. Therefore, an existing game may be updated (or a new game may be added) simply by updating the pre-determined rules stored in the mobile electronic device **16** (or adding new pre-determined rules to the mobile electronic device **16**), without the need for changing the game board **12**. The updated/new rules may be communicated to the mobile electronic device **16** from an application store (e.g., iTunes® by Apple, Inc.) or the like by way of the network **48**.

[0031] Although various aspects of the disclosed board game system have been shown and described, modifications may occur to those skilled in the art upon reading the specification. The present application includes such modifications and is limited only by the scope of the claims.

What is claimed is:

1. A board game system comprising:

a game board that defines a playing surface, said playing surface being marked with indicia for directing placement of game pieces on said playing surface; and

a support structure for supporting a mobile electronic device, said support structure being connected to said game board and rotatable relative to said game board about at least one axis of rotation.

2. The board game system of claim **1** further comprising said mobile electronic device.

3. The board game system of claim **2** wherein said support structure includes a docking station and said mobile electronic device is dockable on said docking station.

4. The board game system of claim **1** wherein said mobile electronic device includes at least one of a mobile telephone, a digital music player, a personal digital assistant, a mobile computer and a handheld game console.

5. The board game system of claim **1** wherein said game board defines a channel extending at least partially therethrough.

6. The board game system of claim **5** wherein said channel extends below said playing surface.

7. The board game system of claim **5** further comprising an electrical conductor extending through said channel.

8. The board game system of claim **7** further comprising an electrical power source, wherein said electrically conductor is electrically coupled to said electrical power source.

9. The board game system of claim **1** wherein said support structure includes at least one fastener configured to releasably engage said mobile electronic device.

10. The board game system of claim **1** wherein said support structure includes a body that defines a recess and a support surface in said recess, wherein said recess is sized and shaped to closely receive said mobile electronic device.

11. The board game system of claim **1** further comprising a platform fixedly connected to said game board, said platform including a connection portion, wherein said support structure is rotatably connected to said connection portion.

12. A board game system comprising:

a game board that defines a playing surface and a channel, said playing surface being marked with indicia for directing placement of game pieces on said playing surface, said channel extending through said game board below said playing surface;

a support structure connected to said game board, said support structure being configured to support a mobile electronic device; and

an electrical conductor extending through said channel and said support structure to electrically couple said mobile electronic device to an electrical power source.

13. The board game system of claim **12** further comprising said mobile electronic device.

14. The board game system of claim **13** wherein said mobile electronic device includes at least one of a mobile telephone, a digital music player, a personal digital assistant, a mobile computer and a handheld game console.

15. The board game system of claim **13** wherein said support structure includes a docking station electrically coupled

to said electrical conductor and said mobile electronic device is dockable on said docking station.

16. The board game system of claim **12** wherein said support structure includes at least one fastener configured to releasably engage said mobile electronic device.

17. The board game system of claim **12** wherein said support structure includes a body that defines a recess and a support surface in said recess, wherein said recess is sized and shaped to closely receive said mobile electronic device.

18. The board game system of claim **12** wherein said support structure is rotatable relative to said game board about at least one axis of rotation.

19. The board game system of claim **12** further comprising a platform fixedly connected to said game board, said platform including a connection portion, wherein said support structure is rotatably connected to said connection portion.

20. A board game system comprising:

a game board that defines a playing surface and a channel, said playing surface being marked with indicia for directing placement of game pieces on said playing surface, said channel extending through said game board below said playing surface;

a support structure connected to said game board and rotatable relative to said game board about at least one axis of rotation;

a mobile electronic device mounted on said support structure; and

an electrical conductor extending through said channel, said electrical conductor including a first end electrically coupled to said mobile electronic device and a second end electrically coupled to an electrical power source.

* * * * *