

Claims

1. A docking station to removably attach to a docking station receptacle of a display apparatus, comprising:
 - a direct data connector to interface with a direct data connector of the display apparatus to provide data communication between the docking station and the display apparatus;
 - a direct power out connector to interface with a direct power in connector of the display apparatus;
 - a host device connector to electronically communicate with a host device, the host device connector to provide data and power communication between the docking station and the host device;
 - an auxiliary power out connector to enable power communication with a second display apparatus;
 - an auxiliary graphical data connector to enable data communication with a second display apparatus; and
 - an attachment device to removably attach the docking station to the docking station receptacle of the display apparatus;wherein at least a portion of the data from the host device to the docking station and from the docking station to the display apparatus is graphical data to render a display on a display screen of the display apparatus.
2. The docking station of claim 1, wherein the attachment device is a hook.
3. The docking station of claim 1, further comprising at least three attachment devices to removably attach the docking station to the docking station receptacle of the display apparatus.
4. The docking station of claim 1, wherein the display apparatus comprises a release mechanism to enable removal of the docking station from the receptacle of the display apparatus.
5. The docking station of claim 4, wherein the release mechanism is a slider.
6. A docking station to removably attach to a docking station receptacle of a display apparatus, comprising:
 - a combined direct data/power out connector to interface with a combined direct data/power in connector of the display apparatus to provide power and data to the display apparatus;
 - a host device connector to enable data and power communication with to a host device; and
 - an attachment device to enable the docking station to removably attach to the docking station receptacle;

wherein at least a portion of the data from the host device to the docking station and from the docking station to the display apparatus is graphical data to render a display on a display screen of the display apparatus.

7. The docking station of claim 6, further comprising a mounting feature to attach to a mount of the docking station and the display apparatus when the docking station is removably attached to the display apparatus.

8. The docking station of claim 7, wherein the mounting device is a hole.

9. The docking station of claim 7, wherein the display apparatus comprises a mounting feature to attach to a mount of the docking station.

10. The docking station of claim 6, further comprising an auxiliary power out connector to enable power communication with a second display apparatus.

11. The docking station of claim 6, further comprising an auxiliary graphical data connector to enable data communication with a second display apparatus.

12. The docking station of claim 6, further comprising a release mechanism to enable removal of the docking station from the receptacle of the display apparatus.

13. A non-transitory computer readable storage medium containing instructions to be operated by a controller of a docking station removably attached to a display apparatus at a docking station receptacle, the instructions, when operated by the controller of the docking station, to cause the docking station to:

receive data from a host device, the data from the host device comprising graphical data;

provide power to the display apparatus via a combined direct data/power out connector of the docking station, the power to operate a display screen of the display apparatus; and

provide at least a portion of the graphical data from the host device to the display apparatus via the combined direct data/power out connector of the docking station for use to render a display on the display screen of the display apparatus.

14. The non-transitory computer readable storage medium of claim 13, the instructions to further cause the docking station to provide power to a second display apparatus via an auxiliary power out connector.

15. The non-transitory computer readable storage medium of claim 13, the instructions to further cause the docking station to provide at least a portion of the graphical data for use to render a display on a display screen of a second display apparatus via an auxiliary graphical data connector.

16. The non-transitory computer readable storage medium of claim 13, the instructions to further cause the docking station to receive data from the display apparatus via the combined direct data/power out connector of the docking station.

17. The non-transitory computer readable storage medium of claim 13, the instructions to further cause the docking station to provide power to the host device via a host device connector.

18. The non-transitory computer readable storage medium of claim 13, wherein the data from the host device is received at the docking station at a wireless transceiver of the docking station.

19. The non-transitory computer readable storage medium of claim 18, wherein the wireless transceiver of the docking station is removable from the docking station.

20. The non-transitory computer readable storage medium of claim 13, the instructions to further cause the docking station to receive, at a wireless transceiver of the docking station, Internet of Things (IoT) data from a network device; wherein the IoT data comprises home automation data.

21. A system for docking with a host device, comprising:

a display apparatus, comprising:

a display screen; and

a docking station receptacle, comprising:

a direct power in connector;

a first direct data connector; and

a first attachment device; and

a docking station, comprising:

a host device connector to interface with the host device, the host device connector to communicate graphical data to the docking station from the host device and power from the docking station to the host device;

a second direct data connector to connect to the first direct data connector and thereby communicate the graphical data from the docking station to the display apparatus, the graphical data to be used by the display apparatus to render a display on the display screen;

a direct power out connector to connect to the direct power in connector and thereby communicate power from the docking station to the display apparatus; and

a second attachment device to removably attach to the first attachment device, thereby removably attaching the docking station to the docking station receptacle of the display apparatus.

22. The system of claim 21, further comprising an auxiliary power out connector to communicate power from the docking station to a second display apparatus.

23. The system of claim 21, wherein the docking station receptacle is located in a neck of the display apparatus.