CLAIMS:

1. An integrated point of view digital video camera operable for mounting to a person, a vehicle, or equipment and operable for capturing video during motion of the person, the vehicle, or the equipment, comprising:

a camera housing containing a lens and an image sensor, the camera housing defining a housing plane and the image sensor operable for capturing light propagating through the lens and representing a scene during motion of the person, the vehicle, or the equipment, the image sensor producing image data representing an image of the scene that is oriented with respect to a horizontal image plane, and the lens and the image sensor having an orientation that is adjustable with respect to the housing plane;

a mounting mechanism adaptable for secure mounting of the camera housing to the person, the vehicle, or the equipment;

a horizon adjustment control for adjusting with respect to the housing plane an orientation of the horizontal image plane of the image of the scene, the horizon adjustment control forming part of the housing but operationally independent of the mounting mechanism to enable adjustment of the orientation of the horizontal image plane when the camera housing is securely mounted to the person, the vehicle, or the equipment; and

a control axis that extends through the camera housing, and the horizon adjustment control including a rotary controller that is operable for rotation about the control axis to rotate the lens and the image sensor which are supported in rotational congruence with the rotary controller and thereby change the orientation of the horizontal image plane with respect to the housing plane such that the image sensor is operable to produce image data with respect to the orientation of the horizontal image plane, in which

the lens and the image sensor are operable for rotation about the control axis.

~~2. The digital video camera of claim 1, in which the lens and the image sensor are operable for rotation about the control axis.~~

~~3~~ 2. The digital video camera of ~~any preceding~~ claim 1, in which:

the scene has a level orientation;

the housing plane includes the control axis;

the image sensor and the lens are mounted along an optical axis that is collinear with the control axis; and

the rotary controller adjusts the horizontal image plane with respect to the level orientation of the scene.

~~4~~ 3. The digital video camera of any preceding claim, in which the mounting mechanism includes a slidably engageable mounting feature on the camera housing.

~~5~~ 4. The digital video camera of any preceding claim, wherein:

the scene has a level orientation;

the person, the vehicle, or the equipment has a mounting surface with an off-axis orientation with respect to the level orientation of the scene;

the mounting mechanism provides positioning adjustment of the camera housing with respect to the level orientation of the scene;

and cooperative adjustment of the mounting mechanism and the rotary controller facilitate adjustments of the horizontal image plane for pitch, yaw, and roll with respect to the level orientation of the scene and permit orientation of the horizontal image plane to be parallel to the level orientation of the scene despite the off-axis orientation of the mounting

surface.

~~6~~ 5. The digital video camera of any preceding claim, in which the mounting mechanism includes first and second mounting pieces configured for coupling to, respectively, the camera housing and the person, the vehicle, or the equipment, and in which the first and second mounting pieces are rotationally coupled to assume an adjustable orientation relative to each other and thereby provide rotational positioning adjustment of the camera housing.

~~7~~ 6. The digital video camera of claim ~~6~~ 5, in which:

the camera housing has a length;

the first mounting piece comprises a plug mount that has a circumferential edge and is matable to the camera housing to provide for linear positioning adjustment of the first mounting piece along the length of the camera housing; and

the second mounting piece comprises a base mount that has a base mount cavity into which the plug mount fits, the base mount cavity having an inside edge to which the circumferential edge of the plug mount is matable, the matable fit of the base mount and the plug mount providing the rotational positioning adjustment of the camera housing about a mount rotation axis that is transverse to the length of the camera housing to enable setting of the digital video camera to a desired viewing angle.

7. An integrated point of view digital video camera operable for mounting to a person, a vehicle, or equipment and operable for capturing video during motion of the person, the vehicle, or the equipment, comprising:

a camera housing containing a lens and an image sensor, the camera housing defining a housing plane and the image sensor operable for capturing light propagating through the lens and representing a scene during motion of the person, the vehicle, or the equipment, the image sensor producing image data representing an image of the scene that is oriented with respect to a horizontal image plane, and the lens and the image sensor having an orientation that is adjustable with respect to the housing plane;

a mounting mechanism adaptable for secure mounting of the camera housing to the person, the vehicle, or the equipment;

a horizon adjustment control for adjusting with respect to the housing plane an orientation of the horizontal image plane of the image of the scene, the horizon adjustment control forming part of the housing but operationally independent of the mounting mechanism to enable adjustment of the orientation of the horizontal image plane when the camera housing is securely mounted to the person, the vehicle, or the equipment; and

a control axis that extends through the camera housing, and the horizon adjustment control including a rotary controller that is operable for rotation about the control axis to rotate the lens and the image sensor which are supported in rotational congruence with the rotary controller and thereby change the orientation of the horizontal image plane with respect to the housing plane such that the image sensor is operable to produce image data with respect to the orientation of the horizontal image plane, in which:

the scene has a level orientation;

the housing plane includes the control axis;

the image sensor and the lens are mounted along an optical axis that is collinear with the control axis; and

the rotary controller adjusts the horizontal image plane with respect to the level orientation of the scene.

8. The digital video camera of claim 7, in which the mounting mechanism includes a slidably engageable mounting feature on the camera housing.

9. The digital video camera of claim 7 or 8, wherein:
the scene has a level orientation;
the person, the vehicle, or the equipment has a mounting surface with an off-axis orientation with respect to the level orientation of the scene;
the mounting mechanism provides positioning adjustment of the camera housing with respect to the level orientation of the scene;
and cooperative adjustment of the mounting mechanism and the rotary controller facilitate adjustments of the horizontal image plane for pitch, yaw, and roll with respect to the level orientation of the scene and permit orientation of the horizontal image plane to be parallel to the level orientation of the scene despite the off-axis orientation of the mounting surface.

10. The digital video camera of any one of the preceding claims 7 to 9, in which the mounting mechanism includes first and second mounting pieces configured for coupling to, respectively, the camera housing and the person, the vehicle, or the equipment, and in which the first and second mounting pieces are rotationally coupled to assume an adjustable orientation relative to each other and thereby provide rotational positioning adjustment of the camera housing.

11. The digital video camera of claim 10, in which:
the camera housing has a length;
the first mounting piece comprises a plug mount that has a circumferential edge and is matable to the camera housing to provide for linear positioning adjustment of the first mounting piece along the length of the camera housing; and
the second mounting piece comprises a base mount that has a base mount cavity into which the plug mount fits, the base mount cavity having an inside edge to which the circumferential edge of the plug mount is matable, the matable fit of the base mount and the plug mount providing the rotational positioning adjustment of the camera housing about a mount rotation axis that is transverse to the length of the camera housing to enable setting of the digital video camera to a desired viewing angle.

12. An integrated point of view digital video camera operable for mounting to a person, a vehicle, or equipment and operable for capturing video during motion of the person, the vehicle, or the equipment, comprising:
a camera housing containing a lens and an image sensor, the camera housing defining a housing plane and the image sensor operable for capturing light propagating through the lens and representing a scene during motion of the person, the vehicle, or the equipment, the image sensor producing image data representing an image of the scene that is oriented with respect to a horizontal image plane, and the lens and the image sensor having an orientation that is adjustable with respect to the housing plane;
a mounting mechanism adaptable for secure mounting of the camera housing to the person, the vehicle, or the equipment;
a horizon adjustment control for adjusting with respect to the housing plane an orientation of the horizontal image plane of the image of the scene, the horizon adjustment control forming part of the housing but operationally independent of the mounting mechanism to enable adjustment of the orientation of the horizontal image plane when the camera housing is securely mounted to the person, the vehicle, or the equipment; and

a control axis that extends through the camera housing, and the horizon adjustment control including a rotary controller that is operable for rotation about the control axis to rotate the lens and the image sensor which are supported in rotational congruence with the rotary controller and thereby change the orientation of the horizontal image plane with respect to the housing plane such that the image sensor is operable to produce image data with respect to the orientation of the horizontal image plane, in which

the mounting mechanism includes a slidably engageable mounting feature on the camera housing.

13. The digital video camera of claim 12, wherein:

the scene has a level orientation;

the person, the vehicle, or the equipment has a mounting surface with an off-axis orientation with respect to the level orientation of the scene;

the mounting mechanism provides positioning adjustment of the camera housing with respect to the level orientation of the scene;

and cooperative adjustment of the mounting mechanism and the rotary controller facilitate adjustments of the horizontal image plane for pitch, yaw, and roll with respect to the level orientation of the scene and permit orientation of the horizontal image plane to be parallel to the level orientation of the scene despite the off-axis orientation of the mounting surface.

14. The digital video camera of claim 12 or 13, in which the mounting mechanism includes first and second mounting pieces configured for coupling to, respectively, the camera housing and the person, the vehicle, or the equipment, and in which the first and second mounting pieces are rotationally coupled to assume an adjustable orientation relative to each other and thereby provide rotational positioning adjustment of the camera housing.

15. The digital video camera of claim 14, in which:

the camera housing has a length;

the first mounting piece comprises a plug mount that has a circumferential edge and is matable to the camera housing to provide for linear positioning adjustment of the first mounting piece along the length of the camera housing; and

the second mounting piece comprises a base mount that has a base mount cavity into which the plug mount fits, the base mount cavity having an inside edge to which the circumferential edge of the plug mount is matable, the matable fit of the base mount and the plug mount providing the rotational positioning adjustment of the camera housing about a mount rotation axis that is transverse to the length of the camera housing to enable setting of the digital video camera to a desired viewing angle.

16. An integrated point of view digital video camera operable for mounting to a person, a vehicle, or equipment and operable for capturing video during motion of the person, the vehicle, or the equipment, comprising:

a camera housing containing a lens and an image sensor, the camera housing defining a housing plane and the image sensor operable for capturing light propagating through the lens and representing a scene during motion of the person, the vehicle, or the equipment, the image sensor producing image data representing an image of the scene that is oriented with respect to a horizontal image plane, and the lens and the image sensor having an orientation that is adjustable with respect to the housing plane;

a mounting mechanism adaptable for secure mounting of the camera housing to the person, the vehicle, or the equipment;

a horizon adjustment control for adjusting with respect to the housing plane an orientation of the horizontal image plane of the image of the scene, the horizon adjustment control forming part of the housing but operationally independent of the mounting mechanism to enable adjustment of the orientation of the horizontal image plane when the camera housing is securely mounted to the person, the vehicle, or the equipment; and

a control axis that extends through the camera housing, and the horizon adjustment control including a rotary controller that is operable for rotation about the control axis to rotate the lens and the image sensor which are supported in rotational congruence with the rotary controller and thereby change the orientation of the horizontal image plane with respect to the housing plane such that the image sensor is operable to produce image data with respect to the orientation of the horizontal image plane, wherein:

the scene has a level orientation;

the person, the vehicle, or the equipment has a mounting surface with an off-axis orientation with respect to the level orientation of the scene;

the mounting mechanism provides positioning adjustment of the camera housing with respect to the level orientation of the scene;

and cooperative adjustment of the mounting mechanism and the rotary controller facilitate adjustments of the horizontal image plane for pitch, yaw, and roll with respect to the level orientation of the scene and permit orientation of the horizontal image plane to be parallel to the level orientation of the scene despite the off-axis orientation of the mounting surface.

17. The digital video camera of claim 16, in which the mounting mechanism includes first and second mounting pieces configured for coupling to, respectively, the camera housing and the person, the vehicle, or the equipment, and in which the first and second mounting pieces are rotationally coupled to assume an adjustable orientation relative to each other and thereby provide rotational positioning adjustment of the camera housing.

18. The digital video camera of claim 17, in which:

the camera housing has a length;

the first mounting piece comprises a plug mount that has a circumferential edge and is matable to the camera housing to provide for linear positioning adjustment of the first mounting piece along the length of the camera housing; and

the second mounting piece comprises a base mount that has a base mount cavity into which the plug mount fits, the base mount cavity having an inside edge to which the circumferential edge of the plug mount is matable, the matable fit of the base mount and the plug mount providing the rotational positioning adjustment of the camera housing about a mount rotation axis that is transverse to the length of the camera housing to enable setting of the digital video camera to a desired viewing angle.

19. An integrated point of view digital video camera operable for mounting to a person, a vehicle, or equipment and operable for capturing video during motion of the person, the vehicle, or the equipment, comprising:

a camera housing containing a lens and an image sensor, the camera housing defining a housing plane and the image sensor operable for capturing light propagating through the lens and representing a scene during motion of the person, the vehicle, or the equipment, the image sensor producing image data representing an image of the scene that is oriented with respect to a horizontal image plane, and the lens and the image sensor having an orientation that is adjustable with respect to the housing plane;

a mounting mechanism adaptable for secure mounting of the camera housing to the

person, the vehicle, or the equipment;

a horizon adjustment control for adjusting with respect to the housing plane an orientation of the horizontal image plane of the image of the scene, the horizon adjustment control forming part of the housing but operationally independent of the mounting mechanism to enable adjustment of the orientation of the horizontal image plane when the camera housing is securely mounted to the person, the vehicle, or the equipment; and

a control axis that extends through the camera housing, and the horizon adjustment control including a rotary controller that is operable for rotation about the control axis to rotate the lens and the image sensor which are supported in rotational congruence with the rotary controller and thereby change the orientation of the horizontal image plane with respect to the housing plane such that the image sensor is operable to produce image data with respect to the orientation of the horizontal image plane, in which

the mounting mechanism includes first and second mounting pieces configured for coupling to, respectively, the camera housing and the person, the vehicle, or the equipment, and in which the first and second mounting pieces are rotationally coupled to assume an adjustable orientation relative to each other and thereby provide rotational positioning adjustment of the camera housing.

20. The digital video camera of claim 19, in which:

the camera housing has a length;

the first mounting piece comprises a plug mount that has a circumferential edge and is matable to the camera housing to provide for linear positioning adjustment of the first mounting piece along the length of the camera housing; and

the second mounting piece comprises a base mount that has a base mount cavity into which the plug mount fits, the base mount cavity having an inside edge to which the circumferential edge of the plug mount is matable, the matable fit of the base mount and the plug mount providing the rotational positioning adjustment of the camera housing about a mount rotation axis that is transverse to the length of the camera housing to enable setting of the digital video camera to a desired viewing angle.

21. An integrated point of view digital video camera operable for mounting to a person, a vehicle, or equipment and operable for capturing video during motion of the person, the vehicle, or the equipment, comprising:

a camera housing containing a lens and an image sensor, the camera housing defining a housing plane and the image sensor operable for capturing light propagating through the lens and representing a scene during motion of the person, the vehicle, or the equipment, the image sensor producing image data representing an image of the scene that is oriented with respect to a horizontal image plane, and the lens and the image sensor having an orientation that is adjustable with respect to the housing plane;

a mounting mechanism adaptable for secure mounting of the camera housing to the person, the vehicle, or the equipment;

a horizon adjustment control for adjusting with respect to the housing plane an orientation of the horizontal image plane of the image of the scene, the horizon adjustment control forming part of the housing but operationally independent of the mounting mechanism to enable adjustment of the orientation of the horizontal image plane when the camera housing is securely mounted to the person, the vehicle, or the equipment; and

a control axis that extends through the camera housing, and the horizon adjustment control including a rotary controller that is operable for rotation about the control axis to rotate the lens and the image sensor which are supported in rotational congruence with the rotary controller and thereby change the orientation of the horizontal image plane with respect to the

housing plane such that the image sensor is operable to produce image data with respect to the orientation of the horizontal image plane, in which:

the camera housing has a length;

the first mounting piece comprises a plug mount that has a circumferential edge and is matable to the camera housing to provide for linear positioning adjustment of the first mounting piece along the length of the camera housing; and

the second mounting piece comprises a base mount that has a base mount cavity into which the plug mount fits, the base mount cavity having an inside edge to which the circumferential edge of the plug mount is matable, the matable fit of the base mount and the plug mount providing the rotational positioning adjustment of the camera housing about a mount rotation axis that is transverse to the length of the camera housing to enable setting of the digital video camera to a desired viewing angle.

~~8. The digital video camera of claim 6, in which the person, the vehicle, or the equipment includes a strap, and in which the second mounting piece includes a strap mount opening through which the strap can pass to facilitate the secure mounting of the camera housing to the person, the vehicle, or the equipment.~~

~~9. The digital video camera of any preceding claim, in which the image sensor has an orientation with respect to the horizontal image plane, and the digital video camera further comprises:~~

~~one or more laser sources being capable of projecting a light emission indicative of a horizontal projection plane, the horizontal projection plane being coordinated with the horizontal image plane such that rotation of the rotary controller changes orientation of the horizontal projection plane and such that the image data is oriented with respect to the horizontal projection plane.~~

~~10. The digital video camera of claim 9 in which one or more laser sources include two laser sources that establish a laser mounting axis that bisects the lens.~~

~~11. The digital video camera of claim 10 in which the laser sources are operable for rotation about the control axis.~~

~~12. The digital video camera of any preceding claim in which the horizon adjustment control is a manual horizon adjustment control.~~

~~13. The digital video camera of claim 1, in which the mounting mechanism has two or more housing rail cavities and two or more interleaved housing rails on each side of the camera housing for engaging the housing rail cavities of the mounting mechanism.~~

~~14. The digital video camera of claim 1, in which the mounting mechanism has a rail plug containing one or more mount rails that are adapted to mate with housing rail cavities on the camera housing.~~

~~15. The digital video camera of claim 1 in which the mounting mechanism has a rail plug attachable to or integrated with a base mount.~~

~~16. The digital video camera of claim 1, in which the mounting mechanism has a rail plug operable for attachment to the digital video camera, and the mounting mechanism has a base mount, wherein the rail plug can be rotated from zero to 360 degrees within a plane~~

perpendicular to the base mount to capture a desired viewing angle with the digital video camera.

17. The digital video camera of any preceding claim, further comprising:
a data storage medium for receiving image data directly or indirectly from the image sensor;
a video encoder that cooperates with the image sensor;
a microprocessor that provides instructions to the video encoder;
a microphone for capturing audio data and directly or indirectly providing the audio data to the data storage medium or to a second data storage medium; and
a manually operable switch for controlling operation of the image sensor and the video encoder and/or the microphone.

18. The digital video camera of claim 17, further comprising:
a switch activator for the manually operable switch, wherein the switch activator is movable over a slidably engageable surface of the camera housing.

19. The digital video camera of claim 18, wherein:
the camera housing has a top surface area; and
the slidably engageable surface forms a major portion of the top surface area.

20. The digital video camera of claim 18 or 19, wherein:
the camera housing has a top surface area;
the switch activator covers a major portion of the top surface area.

21. The digital video camera of any of claims 18 to 20, wherein:
the housing plane transects the camera housing;
the camera housing has a housing length along the housing plane; and
the switch activator has an activator length that forms a major portion of the housing length.

22. The digital video camera of any claims 18 to 21, wherein:
the camera housing presents a top plan view exhibiting a top surface area of the camera housing;
the camera housing presents a front view exhibiting a contour of the top surface area; and
the switch activator has a contour that matches the contour of the top surface area.

23. The digital video camera of any 18 to 22, wherein:
the camera housing has a housing surface contour;
the switch activator is recessed beneath the housing surface contour; and
the switch activator has a switch surface contour that matches the housing surface contour and is mounted such that the switch surface contour is flush with the housing surface contour.

24. The digital video camera of any one of claims 17 to 23 wherein the switch is a magnetically controlled switch.

25. The digital video camera of any one of claims 17 to 24 wherein the lens, image sensor, and data storage medium are enclosed within a camera housing and the switch

~~controls activation of the image data capturing operation without penetrating the camera housing.~~

~~26. The digital video camera of claim 17, wherein:~~
~~the manually operable switch for controls operation of the image sensor, the video encoder, and the microphone, the manually operable switch having an ON position and an OFF position such that when the switch is placed in the ON position, the image sensor, video encoder, and microphone initiate the video and audio data capturing operations.~~

~~27. The digital video camera of claim 18, wherein:~~
~~the switch activator covers a major portion of the slidably engageable surface.~~

~~28. The digital video camera of any one of claims 1 to 25 wherein the mounting mechanism is operable for rotational adjustment between the camera housing and the person, the vehicle, or the equipment.~~

~~29. The digital video camera of any one of claims 1 to 25 wherein the mounting mechanism is adapted for releasable mounting of the camera housing to at least one of a helmet, snowboard deck, ski, fuel tank, window, door, vehicle hood, ski pole, roll-cage, windsurfing mast, hang glider support, goggle strap, or handle bar.~~

~~30. The digital video camera of claim 29 wherein the mounting mechanism is selected from a group of mounting mechanisms having a common mounting feature for securing the camera housing to the mounting mechanism and having different base mount features for securing the mounting mechanism to different ones of the helmet, snowboard deck, ski, fuel tank, window, door, vehicle hood, ski pole, roll-cage, windsurfing mast, hang glider support, goggle strap, or handle bar.~~

~~31. The digital video camera of any one of claims 1 to 25 wherein the mounting mechanism is operable as a dampener to cushion the camera from the person, the vehicle, or the equipment.~~

~~32. A method for employing the digital video camera of any one of claims 9 to 25, comprising:~~
~~securely mounting the camera housing to the person, the vehicle, or the equipment;~~
~~activating one or more of the laser sources, mounted in a rotary controller, to project a light emission indicative of the horizontal projection plane that is parallel to the horizontal image plane of the image sensor, the rotary controller being operable to adjust with respect to the housing plane an orientation of the horizontal image plane of the image of the scene, the rotary controller being operable for rotation about the control axis that is perpendicular to the lens, such that rotation of the rotary controller changes the orientation of the horizontal image plane with respect to the housing plane; and~~
~~rotating the rotary controller about the control axis in response to the horizontal projection plane of the light emission, thereby changing the orientation of the horizontal image plane of the image sensor with respect to the housing plane.~~

~~33. A method for employing the digital video camera, comprising:~~
~~mounting a first mounting piece to a camera housing of the digital video camera;~~
~~mounting a second mounting piece to a person, vehicle, or equipment;~~

coupling the first and second mounting pieces to assume an adjustable orientation relative to each other to provide rotational positioning adjustment of the camera housing within a housing plane and with respect to the person, the vehicle, or the equipment;

rotating a rotary controller about the control axis that extends through the camera housing, wherein the control axis is coplanar with the housing plane, the rotary controller supporting an image sensor in rotational congruence with rotation of the rotary controller, the image sensor producing image data representing an image of a scene that is oriented with respect to a horizontal image plane, the rotary controller and the image sensor having an orientation that is adjustable with respect to a housing plane such that rotation of the rotary controller adjusts the orientation of the horizontal image plane of the image of the scene with respect to the housing plane, and the rotary controller is operationally independent of the first and second mounting pieces to enable adjustment of the orientation of the horizontal image plane when the camera housing is securely mounted to the person, the vehicle, or the equipment.

34. A mounting system for securely mounting a camera housing of a video camera to a support, comprising:

a mounting mechanism including a rail plug containing one or more mount rails that are adapted to mate with housing rail cavities on the camera housing of the video camera; and

a base mount, wherein the rail plug can be rotated from zero to 360 degrees within a plane perpendicular to the base mount to capture a desired viewing angle with the video camera.

35. A digital video camera, comprising:

a camera housing;

a lens;

a data storage medium;

an image sensor for capturing image data through the lens and directly or indirectly providing the image data to the data storage medium;

a video encoder that cooperates with the image sensor;

a microprocessor that provides instructions to the video encoder;

a microphone for capturing audio data and directly or indirectly providing the audio data to the data storage medium or to a second data storage medium;

a manually operable switch for controlling operation of the image sensor, the video encoder, and the microphone, the manually operable switch having an ON position and an OFF position such that when the switch is placed in the ON position, the image sensor, video encoder, and microphone initiate the video and audio data capturing operations; and

a switch activator for the manually operable switch, wherein the switch activator is movable over a slidably engageable surface of the camera housing to slidably engage a surface of the digital video camera, and the switch activator has an activator area that covers a major portion of the slidably engageable surface.

36. The digital video camera of claim 35 in which the switch is a magnetically controlled switch.

37. The digital video camera of claim 35 in which the lens, image sensor, and data storage medium are enclosed within a camera housing and the switch controls activation of the image data capturing operation without penetrating the camera housing.

38. A digital video camera, comprising:

a lens;

a data storage medium;

an image sensor for capturing image data through the lens and directly or indirectly providing the image data to the data storage medium;

a video encoder that cooperates with the image sensor;

a microphone for capturing audio data and directly or indirectly providing the audio data to the data storage medium or to a second data storage medium;

a microprocessor that provides instructions to the video encoder;

a manually operable switch having an ON position and an OFF position, the manually operable switch being adapted for substantially simultaneously controlling a supply of power to the microprocessor, the image sensor, and the video encoder, such that when the switch is placed in the ON position the microprocessor, the image sensor, and the video encoder all receive power substantially concurrently and thereby substantially instantaneously initiate a video data capturing operation, and wherein the manually operable switch controls an audio data capturing operation of the microphone such that the audio data capturing operation is deactivated when the manually operable switch is in the OFF position and the audio data capturing operation is activated when the manually operable switch is in the ON position; and

a switch activator for the manually operable switch, wherein the switch activator covers the microphone whenever the manually operable switch is in the OFF position, and wherein the switch activator exposes the microphone whenever the manually operable switch is in the ON position.

39. An integrated point of view digital video camera operable for mounting to a person, a vehicle, or equipment and operable for capturing video during motion of the person, the vehicle, or the equipment, comprising:

a camera housing;

a lens;

a data storage medium;

an image sensor operable for capturing image data through the lens and directly or indirectly providing the image data to the data storage medium, the image data representing a scene during motion of the person, the vehicle, or the equipment;

a video encoder that cooperates with the image sensor;

a microprocessor that provides instructions to the video encoder;

a microphone for capturing audio data and directly or indirectly providing the audio data to the data storage medium or to a second data storage medium; and

a manually operable switch for controlling operation of the image sensor, the video encoder, and the microphone, the manually operable switch having an ON position and an OFF position such that when the switch is placed in the ON position, the image sensor, video encoder, and microphone initiate the video and audio data capturing operations.

40. An integrated point of view digital video camera operable for mounting to a person, a vehicle, or equipment and operable for capturing video during motion of the person, the vehicle, or the equipment, comprising:

a camera housing defining a housing plane;

a lens;

a data storage medium;

an image sensor operable for capturing image data through the lens and directly or indirectly providing the image data to the data storage medium, the image data representing a scene during motion of the person, the vehicle, or the equipment, the image sensor producing

image data representing an image of the scene that is oriented with respect to a horizontal image plane, and the image sensor having an orientation that is adjustable with respect to the housing plane;

a horizon adjustment control for adjusting with respect to the housing plane an orientation of the horizontal image plane of the image of the scene, the horizon adjustment control forming part of the housing to enable adjustment of the orientation of the horizontal image plane when the camera housing is securely mounted to the person, the vehicle, or the equipment; and

a control axis that extends through the camera housing, and the horizon adjustment control including a rotary controller that is operable for rotation about the control axis to rotate the image sensor which is supported in rotational congruence with the rotary controller and thereby change the orientation of the horizontal image plane with respect to the housing plane such that the image sensor is operable to produce the image data with respect to the orientation of the horizontal image plane;

a video encoder that cooperates with the image sensor;

a microprocessor that provides instructions to the video encoder;

a microphone for capturing audio data and directly or indirectly providing the audio data to the data storage medium or to a second data storage medium;

a manually operable switch for controlling operation of the image sensor, the video encoder, and the microphone, the manually operable switch having an ON position and an OFF position such that when the switch is placed in the ON position, the image sensor, video encoder, and microphone initiate the video and audio data capturing operations.

41. A digital video camera, comprising:

a camera housing;

a lens;

a data storage medium;

an image sensor for capturing image data through the lens and directly or indirectly providing the image data to the data storage medium;

a video encoder that cooperates with the image sensor;

a microprocessor that provides instructions to the video encoder;

a microphone for capturing audio data and directly or indirectly providing the audio data to the data storage medium or to a second data storage medium;

a manually operable switch for controlling operation of the image sensor, the video encoder, and the microphone, the manually operable switch having an ON position and an OFF position such that when the switch is placed in the ON position, the image sensor, video encoder, and microphone initiate the video and audio data capturing operations; and

a switch activator for the manually operable switch, wherein the switch activator is movable over a slidably engageable surface of the camera housing to slidably engage a surface of the digital video camera, and wherein the switch activator has an activator area that covers a major portion of the slidably engageable surface.

42. The digital video camera of any preceding claim, further comprising:

a switch activator for the manually operable switch, wherein the switch activator is movable over a slidably engageable surface of the camera housing.

43. The digital video camera of any preceding claim, wherein:

the camera housing has a top surface area; and

the slidably engageable surface forms a major portion of the top surface area.

~~44. The digital video camera of any preceding claim, wherein:~~
~~the camera housing has a top surface area;~~
~~the switch activator covers a major portion of the top surface area.~~

~~45. The digital video camera of any preceding claim, wherein:~~
~~the housing plane transects the camera housing;~~
~~the camera housing has a housing length along the housing plane; and~~
~~the switch activator has an activator length that forms a major portion of the housing length.~~

~~46. The digital video camera of any preceding claim, wherein:~~
~~the camera housing presents a top plan view exhibiting a top surface area of the camera housing;~~
~~the camera housing presents a front view exhibiting a contour of the top surface area; and~~
~~the switch activator has a contour that matches the contour of the top surface area.~~

~~47. The digital video camera of any preceding claim, wherein:~~
~~the camera housing has a housing surface contour;~~
~~the switch activator is recessed beneath the housing surface contour; and~~
~~the switch activator has a switch surface contour that matches the housing surface contour and is mounted such that the switch surface contour is flush with the housing surface contour.~~

~~48. The digital video camera of any preceding claim wherein the switch is a magnetically controlled switch.~~

~~49. The digital video camera of any preceding claim wherein the lens, image sensor, and data storage medium are enclosed within a camera housing and the switch controls activation of the image data capturing operation without penetrating the camera housing.~~

~~47. The digital video camera of any preceding claim, wherein:~~
~~the camera housing has a housing surface contour;~~
~~the switch activator is recessed beneath the housing surface contour; and~~
~~the switch activator has a switch surface contour that matches the housing surface contour and is mounted such that the switch surface contour is flush with the housing surface contour.~~

~~48. The digital video camera of any preceding claim wherein the switch is a magnetically controlled switch.~~

~~49. The digital video camera of any preceding claim wherein the lens, image sensor, and data storage medium are enclosed within a camera housing and the switch controls activation of the image data capturing operation without penetrating the camera housing.~~

~~50. The digital video camera of any preceding claim wherein the camera housing has a housing plane that transects the camera housing, in which the lens has a transverse orientation with respect to the housing plane, in which the image sensor has a transverse orientation with respect to the housing plane, and in which the image sensor and the lens are positioned about an axis.~~

51. The digital video camera of claim 41, further comprising:

a rotary controller that rotates the image sensor about the axis in a rotational plane that is transverse to the axis, such that rotation of the rotary controller changes rotational orientation of the image sensor with respect to the housing plane.

52. The digital video camera of any preceding claim wherein the camera housing has a housing plane that transects the camera housing, in which the camera housing has a housing width that is perpendicular to the housing plane, and in which the switch activator has an activator width that forms a major portion of the housing width.

53. The digital video camera of any preceding claim wherein the camera housing has a housing plane that transects the camera housing, the lens, and the switch activator.

54. The digital video camera of claim 41, in which the digital video camera comprises a mounting mechanism that includes first and second mounting pieces configured for coupling to, respectively, the camera housing and the support, and in which the first and second mounting pieces are rotationally coupled to assume an adjustable orientation relative to each other and thereby provide rotational positioning adjustment of the camera housing.

55. The digital video camera of claim 54, in which:

the camera housing has a length;

the first mounting piece comprises a plug mount that has a circumferential edge and is matable to the camera housing to provide for linear positioning adjustment of the first mounting piece along the length of the camera housing; and

the second mounting piece comprises a base mount that has a base mount cavity into which the plug mount fits, the base mount cavity having an inside edge to which the circumferential edge of the plug mount is matable, the matable fit of the base mount and the plug mount providing the rotational positioning adjustment of the camera housing about a mount rotation axis that is transverse to the length of the camera housing to enable setting of the digital video camera to a desired viewing angle.

56. The digital video camera of any preceding claim, further comprising:

a power supply;

a constantly active pulsed power control system including an impulse power sensor in communication with the power supply for monitoring activation of the manually operable switch, wherein the pulsed power control system is operable for substantially instantaneously providing power to the image sensor,

the video encoder, and the microphone whenever the manually operable switch is placed in the ON position and for substantially instantaneously shutting power to the image sensor, the video encoder, and the microphone whenever the manually operable switch is placed in the OFF position.

57. The digital video camera of any preceding claim in which the digital video camera comprises a pulse power system to monitor for activation of the switch activator.

58. The digital video camera of claim 57, in which the pulse power system provides full power to the image sensor, video encoder, microprocessor, and microphone whenever the switch is placed in the ON position, and in which the pulse power system cuts power to the image sensor, video encoder, microprocessor, and microphone whenever the switch is

placed in the OFF position to immediately stop audio and video capturing operations.

59. A method for capturing images with a digital video camera having a camera housing and a lens, comprising:

providing a battery;

providing a data storage medium;

providing an image sensor for capturing image data through the lens and directly or indirectly providing the image data to the data storage medium;

providing a video encoder that cooperates with the image sensor;

providing a microprocessor that provides instructions to the video encoder;

providing a microphone for capturing audio data and directly or indirectly providing the audio data to the data storage medium or to a second data storage medium;

providing a switch activator that is moveable over a slidably engageable surface of the camera housing to slidably enagage the camera housing; and

providing pulse power to a switch monitoring system to detect for engagement of the switch activator to an ON position such that when the switch

monitoring system detects engagement of the switch activator to the ON position, the image sensor, video encoder, and microphone initiate video and audio data capturing operations.

60. A digital video camera, comprising:

a camera housing having a housing plane that transects the camera housing, the camera housing having a housing length along the housing plane and the camera housing having a housing width that is perpendicular to the housing plane;

a lens;

a data storage medium;

an image sensor;

a video encoder;

a microprocessor;

a microphone;

a manually operable switch for controlling operation of the image sensor, the video encoder, and the microphone; and

a switch activator for the manually operable switch, wherein the switch activator is moveable over a slidably engageable surface of the camera housing to slidably enagage the camera housing, wherein the switch activator has an activator length that forms a major portion of the housing length, and wherein the switch activator has an activator width that forms a major portion of the housing width.

61. The digital video camera of any preceding claim wherein the digital video camera is operable for mounting to a person, a vehicle, or equipment and operable for hands-free capture of video during motion of the person, the vehicle, or the equipment involved in an action sport activity, whereby the mounting mechanism is operable to permit the person involved in the action sport activity to obtain hands-free point of view video during involvement in the action sports activity.

62. The digital video camera of any preceding claim wherein the mounting mechanism secures the camera housing in a mounted orientation with respect to the person, the vehicle, or the equipment, and wherein the mounting mechanism is operable to retain the mounted orientation for the camera housing when the camera housing is detached from the person, the vehicle, or the equipment.