CLAIMS

1. A legged robot, comprising:

a frame comprising a plurality of links in mechanical communication with a plurality of brackets, the frame forming a front, back, top, bottom, and sides;

four legs ~~in mechanical communication with~~, each leg removably mechanically coupled to one ~~or more~~of the plurality of brackets, each leg mechanically attachable and detachable to the bracket by a user via a mechanical fastening mechanism, each leg comprising a knee motor, an abduction motor, and a hip motor;

a computer module in mechanical communication with one or more of the plurality of brackets and in electrical communication with the legs; and

a power module in mechanical communication with one or more of the plurality of brackets and in electrical communication with the legs and the computer module.

2. The legged robot of claim 1, further comprising a motor enclosure enclosing the hip motor and the abduction motor.

3. The legged robot of claim 2, wherein the motor enclosure encloses a motor controller in electrical communication with the computer module.

4. The legged robot of claim 3, wherein each of the abduction motor, hip motor, and knee motor has an associated encoder, and each associated encoder is in electronic communication with the motor controller.

5. The legged robot of claim 2, wherein the abduction motor actuates movement of the motor enclosure.

~~6. The legged robot of claim 2, wherein the motor enclosure is mechanically coupled to one or more of the plurality of brackets via a mechanical fastener.~~

~~7.~~6. The legged robot of any one of claims 2 to 5~~6~~, wherein the mechanical ~~fastener~~fastening mechanism facilitates communication of one of electrical power and electrical signal to the motor enclosure.

~~8.~~7. The legged robot of any one of the preceding claims ~~1~~, wherein the hip motor is mechanically coupled to an output of the abduction motor.

~~9.~~8. The legged robot of any one of the preceding claims ~~1~~, wherein the knee motor is mechanically coupled to an output of the hip motor.

~~10.~~9. The legged robot of any one of the preceding claims ~~1~~, wherein the knee motor is mechanically coupled to an upper leg member, and the upper leg member is mechanically coupled to a lower leg member by a joint.

~~11.~~10. The legged robot of any one of the preceding claims ~~1~~, further comprising a sensor head mechanically coupled to one or more of the plurality of brackets and in electrical communication with one or more of the computer module and the power module.

~~12.~~11. The legged robot of any one of the preceding claims ~~1~~, wherein the computer module and power module are at least partially located within an interior space within the frame.

~~13~~12. The legged robot of any one the preceding claims ~~1~~, wherein one or more of the plurality of brackets comprise payload fasteners.