WHAT IS CLAIMED IS:

1. A method (200) for constructing a robotic arm (104) comprising a plurality of links (116) and a rope assembly (122), the method comprising:

providing (202) the rope assembly (122) having a rope with a plurality of rope bearings (126) threaded thereon; and

attaching (204) the plurality of rope bearings (126) of the rope assembly (122) to the plurality of links (116) of the robotic arm (104).

2. The method (200) of claim 1, wherein providing (202) the rope assembly (122) having the rope (124) with the plurality of rope bearings (126) threaded thereon comprises threading (206) the plurality of rope bearings (126) on the rope (124) prior to attaching the plurality of rope bearings (126) of the rope assembly (122) to the plurality of links (116) of the robotic arm (104).

3. The method (200) of claim 1, wherein attaching (204) the plurality of rope bearings (126) of the rope assembly (122) to the plurality of links (116) of the robotic arm (104) comprises removably coupling (208) the plurality of rope bearings (126) of the rope assembly (122) to the plurality of links (116) of the robotic arm (104).

4. The method (200) of claim 1, wherein providing (202) the rope assembly (122) having the rope (124) with the plurality of rope bearings (126) threaded thereon comprises providing (220) a plurality of rope assemblies (122), with each rope assembly (122) including a rope (124) with a respective plurality of rope bearings (126) threaded thereon, and wherein attaching (204) the plurality of rope bearings (126) of the rope assembly (122) to the plurality of links (116) of the robotic arm (104) comprises attaching (222) the plurality of rope bearings (126) of each rope assembly (122) of the plurality of rope assemblies (122) to the plurality of links (116) of the robotic arm (104).

5. The method (200) of claim 4, wherein the plurality of rope assemblies (122) comprises at least 6 rope assemblies (122).

6. The method (200) of claim 1, wherein the plurality of links (116) comprises a forward link (116A) and an aft link (116B), wherein the forward link (116A) includes a bracket (120), wherein the aft link (116B) also includes a bracket (120), and wherein attaching (204) the plurality of rope bearings (126) of the rope assembly (122) to the plurality of links (116) of the robotic arm (104) includes attaching (212) a first rope bearing to the bracket (120) of the forward link (116), and attaching a second rope bearing to the bracket (120) of the aft link (116).

7. The method (200) of claim 1, wherein the rope (124) includes an anchor (129) fixedly coupled to an end of the rope (124), and wherein the method further comprises attaching the anchor (129) to one link (116) of the plurality of links (116).

8. A robotic arm (104) comprising:

a plurality of links (116) moveably coupled to one another, the plurality of links (116) collectively comprising a plurality of brackets (120); and

a rope assembly (122) comprising a rope (124) and a plurality of bearings (126) threaded thereon, each bearing (126) of the plurality of bearings (126) removably coupled to one bracket (120) of the plurality of brackets (120) of the plurality of links (116).

9. The robotic arm (104) of claim 8, wherein each link (116) extends between a forward end and an aft end, and wherein the plurality of brackets (120) includes a forward bracket (120A) at the forward end of each link (116) and an aft bracket (120B) at the aft end of each link (116).

10. The robotic arm (104) of claim 8, wherein the plurality of links (116) includes a first link, wherein the plurality of brackets (120) of the plurality of links (116) includes a forward bracket (120A) positioned at a forward end of the first link (116), wherein the forward bracket (120A) defines a forward bracket opening, wherein a

first bearing of the plurality of bearings (126) of the rope assembly (122) is positioned within the forward bracket opening.

11. The robotic arm (104) of claim 10, wherein the forward bracket (120) comprises a cap (134) and a base (132), wherein the base (132) defines at least in part the forward bracket (120) opening, and wherein the cap (134) is removably coupled to the base (132) for removably coupling the first bearing to the forward bracket (120A).

12. The robotic arm (104) of claim 10, wherein the first bearing comprises a body and a lock (160), wherein the lock (160) is removably coupled to the body for removably coupling the first bearing to the forward bracket (120A).

13. The robotic arm (104) of claim 12, wherein the body of the first bearing extends between a first end (152) and a second end (154), wherein the body of the first bearing includes a head (156) at the first (152) and defines a groove (158) at the second end (154), and wherein the lock (160) is removably positioned within the groove (158).

14. The robotic arm (104) of claim 10, wherein the bracket (120) defines a plurality of bracket (120) openings, and wherein the robotic arm (104) further comprises a plurality of rope assemblies (122), wherein each rope assembly (122) includes a bearing removably positioned in one of the plurality of bracket (120) openings of the bracket (120).

15. The robotic arm (104) of claim 8, wherein the rope assembly (122) includes a plurality of ropes (124), wherein the plurality of links (116) includes a first link defining a circumferential direction, wherein the plurality of brackets (120) includes a first bracket positioned on the first link and defining a plurality of openings spaced along the circumferential direction, and wherein the plurality of ropes (124) extend through the plurality of openings of the first bracket.

1. A method for constructing a robotic arm comprising a plurality of links and a rope assembly, the method comprising:

providing the rope assembly having a rope with a plurality of rope bearings threaded thereon; and

attaching the plurality of rope bearings of the rope assembly to the plurality of links of the robotic arm.

2. The method of claim 1, wherein providing the rope assembly having the rope with the plurality of rope bearings threaded thereon comprises threading the plurality of rope bearings on the rope prior to attaching the plurality of rope bearings of the rope assembly to the plurality of links of the robotic arm.

3. The method of claim 1, wherein attaching the plurality of rope bearings of the rope assembly to the plurality of links of the robotic arm comprises removably coupling the plurality of rope bearings of the rope assembly to the plurality of links of the robotic arm.

4. The method of claim 1,

wherein providing the rope assembly having the rope with the plurality of rope bearings threaded thereon comprises providing a plurality of rope assemblies, with each rope assembly including a rope with a respective plurality of rope bearings threaded thereon, and

wherein attaching the plurality of rope bearings of the rope assembly to the plurality of links of the robotic arm comprises attaching the plurality of rope bearings of each rope assembly of the plurality of rope assemblies to the plurality of links of the robotic arm.

5. The method of claim 4, wherein the plurality of rope assemblies comprises at least 6 rope assemblies.

6. The method of claim 1,

wherein the plurality of links comprises a forward link and an aft link,

wherein the forward link includes a bracket,

wherein the aft link also includes a bracket, and

wherein attaching the plurality of rope bearings of the rope assembly to the plurality of links of the robotic arm includes attaching a first rope bearing to the bracket of the forward link, and attaching a second rope bearing to the bracket of the aft link.

7. The method of claim 1,

wherein the rope includes an anchor fixedly coupled to an end of the rope, and

wherein the method further comprises attaching the anchor to one link of the plurality of links.

8. The method of claim 1,

wherein the plurality of links comprise a respective plurality of brackets,

wherein attaching the plurality of rope bearings of the rope assembly to the plurality of links of the robotic arm comprises attaching the rope bearings of the rope assembly to the respective plurality of brackets of the plurality of links.

9. The method of claim 1, wherein attaching the plurality of rope bearings of the rope assembly to the plurality of links of the robotic arm comprises attaching a first rope bearing to a first bracket of a first link of the plurality of links.

10. The method of claim 9, wherein attaching the first rope bearing to the first bracket of the first link of the plurality of links comprises moving the first rope bearing at least partially into a bracket opening of the first bracket and attaching a bracket cap to a bracket base to removably couple the first rope bearing to the first link.

11. The method of claim 9, wherein attaching the first rope bearing to the first bracket of the first link of the plurality of links includes moving the first rope bearing at least partially into a bracket opening of the first bracket and attaching a

lock to the first rope bearing to removably couple the first rope bearing to the first link.

12. The method of claim 9,

wherein the rope assembly includes a plurality of ropes extending through the first rope bearing, and

wherein attaching the first rope bearing to the first bracket of the first link of the plurality of links includes attaching the first rope bearing having the plurality of ropes of the rope assembly extending therethrough to the first bracket of the first link.

13. A robotic arm assembly comprising:

a robotic arm comprising:

a plurality of links moveably coupled to one another, the plurality of links collectively comprising a plurality of brackets; and

a rope assembly comprising a rope and a plurality of bearings threaded thereon,

wherein each bearing of the plurality of bearings is removably coupled to and in contact with one bracket of the plurality of brackets of the plurality of links.

14. The robotic arm assembly of claim 13,

wherein each link extends between a forward end and an aft end, and

wherein the plurality of brackets includes a forward bracket at the forward end of each link and an aft bracket at the aft end of each link.

15. The robotic arm assembly of claim 13,

wherein the plurality of links includes a first link,

wherein the plurality of brackets of the plurality of links includes a forward bracket positioned at a forward end of the first link,

wherein the forward bracket defines a forward bracket opening,

wherein a first bearing of the plurality of bearings of the rope assembly is positioned within the forward bracket opening.

16. The robotic arm assembly of claim 15,

wherein the forward bracket comprises a cap and a base,

wherein the base defines at least in part the forward bracket opening, and

wherein the cap is removably coupled to the base for removably coupling the first bearing to the forward bracket.

17. The robotic arm assembly of claim 15,

wherein the first bearing comprises a body and a lock,

wherein the lock is removably coupled to the body for removably coupling the first bearing to the forward bracket.

18. The robotic arm assembly of claim 15,

wherein the bracket defines a plurality of bracket openings, and

wherein the robotic arm further comprises a plurality of rope assemblies,

wherein each rope assembly includes a bearing removably positioned in one of the plurality of bracket openings of the bracket.

19. The robotic arm assembly of claim 13,

wherein the rope assembly includes a plurality of ropes,

wherein the plurality of links includes a first link defining a circumferential direction,

wherein the plurality of brackets includes a first bracket positioned on the first link and defining a plurality of openings spaced along the circumferential direction, and

wherein the plurality of ropes extend through the plurality of openings of the first bracket.

20. A robotic arm comprising:

a plurality of links moveably coupled to one another, the plurality of links collectively comprising a plurality of brackets, and

a rope assembly comprising a rope and a plurality of bearings threaded thereon,

wherein each bearing of the plurality of bearings is removably coupled to one bracket of the plurality of brackets of the plurality of links,

wherein the plurality of links includes a first link,

wherein the plurality of brackets of the plurality of links includes a forward bracket positioned at a forward end of the first link,

wherein the forward bracket defines a forward bracket opening,

wherein a first bearing of the plurality of bearings of the rope assembly is positioned within the forward bracket opening,

wherein the first bearing comprises a body and a lock,

wherein the lock is removably coupled to the body for removably coupling the first bearing to the forward bracket,

wherein the body of the first bearing extends between a first end and a second end,

wherein the body of the first bearing includes a head at the first end and defines a groove at the second end, and

wherein the lock is removably positioned within the groove.