### Cable bot



**Descriptors:**

* Cables can only be driven by positive tension
* A cable bot with n DOFs driven by m cables can be classified as :
  + Underconstrained when n + 1 > m
  + Fully constrained when n + 1 = m
  + Redundantly constrained when n + 1 < m
* Positional accuracy and load capacity rely on stiffness of cables as well as internal tension exerted on the cables

**Benefits**:

* Small moving inertia (resistance to change in velocity)
* Large workspace motion
* Can achieve high speed and acceleration
* High payload-to-weight ratios (the weight of the maximum payload divided by the weight of the empty vehicle)

**Cons**:

* There are many factors that can reduce position accuracy; we are particularly concerned with the impact of having magnets

**References:**

https://cjme.springeropen.com/articles/10.1186/s10033-018-0267-9

**Other things to explore:**

<https://www.researchgate.net/publication/260393125_Four-cable-driven_parallel_robot>

