

### 3 Parts list

- Omnidirectional drive, ideally able to move sufficiently fast (2-3 feet/second)
  - If possible, the omni chassis from last year, or an equivalent one from the same vendor. We may need to gear up the motor if necessary
  - Four H-bridges (lots of transistors)
  - Power supply sufficient for the four motors
- Raspberry Pi 3
- $2 \times$  Pixy CMUcam5 (two for the possibility of stereo vision)
- Adafruit 9-DOF Accel/Mag/Gyro+Temp Breakout Board – LSM9DS0
- SparkFun Line Sensor Breakout – QRE1113 (Analog); if this proves to be insufficient, we may also want to try the Lynxmotion Single Line Detector (SLD-01), but since this is not a critical design component, we should be able to wait until we test the SparkFun board before deciding whether we need to buy the Lynxmotion one.
- Particle board measuring about  $5\text{ ft} \times 5\text{ ft}$  to use as playing surface; if this is too large, it can be broken up into several pieces as long as the joins are even and can be taped together
- Table tennis paddle
- Hitec HS-322HD servo for changing angle of table tennis paddle
- We will need some kind of structural components to mount the servo and paddle, but without knowing what our final chassis will look like, it is hard to order in advance. This is a fairly late stage of development, though, so we should be able to wait to order those parts.