

## 2024 Botball Scoring Examples

Basic – push any game piece off black tape - driving, turning, effector (bulldozer blade ETC)

Basic – push Fuel (orange poms) off into an area (sorted) driving, effectors.

Basic – Push *Lunar Rocks* into *Rock Heap* - driving, effectors

Basic – Flip *Space Dock Switch*- driving, localization, effector

Basic – Return Robot to either *Rover Bay* (starting box) before end of match - driving, localization.

Intermediate – Open *Air Lock*- driving, servos, effectors that can grab *the Air lock* handle.

Intermediate – *Habitats* (Pool Noodle) near *Small Rover Bay* onto shorter *Habitat Construction* poles - driving, servos, localization, and effectors

Intermediate – *Habitats* (Pool Noodle) on *Moon Base Storage Docks* onto shorter *Habitat Construction* poles - driving, servos, localization, and effectors

Intermediate – *Equipment* (purple noodles) in *Lava Tube Area*

*Intermediate- Lava Tube Cap on top of any Lava Tube*- driving, servos, localization, and effector

Intermediate- *Astronaut(s)* into Air Lock *or* on Moon Base Platform - driving, servos, localization, and effector

Intermediate- Sort poms into different areas - driving, servos, localization, and effector

Intermediate/Advanced – Retrieve small *Surface Habitats* (Red and Green Cubes) from *Moon Base Platforms* and distribute them to multiple areas- driving, servos, and effectors that can reach the correct height.

Intermediate/Advanced- *Astronaut* into *Flag Station* to raise *Flag or Solar Station*- driving, servos, localization, and effector.

Intermediate/Advanced– Flip over *Solar Panel*- driving, servos, localization, and effector (Be careful; this could burn out a servo as the *Solar Panel* is heavy.

Intermediate/Advanced – *Equipment* (purple noodles) into *Lava Tubes* - robot synchronization, driving, articulation (height and grasp), localization.

Intermediate/Advanced – Removing *Water Ice* (light blue poms) from *Lava Tube Area* driving, localization, effector that can reach and grab poms.

Intermediate/Advanced – Retrieve Large *Surface Habitats* (Yellow Cubes) and *Botguy* from *Moon Base Platforms* and distribute them to multiple areas- driving, servos, and effectors that can reach the correct height.

Advanced – *Habitats* (Pool Noodle) from *Storage Dock* poles onto shorter, medium, and tall *Habitat Construction* poles - driving, servos, localization, and effectors

Advanced- *Habitats* (Pool Noodle) from *Storage Dock* poles onto =>5 *Habitat Construction* poles - driving, servos, localization, and effectors

Advanced- *Water Ice* (light blue poms) into the *Air Lock*, *Air Lock* closed.

Expert- *Mixed Ice* (light blue poms) into the *Air Lock*, *Air Lock* closed.

Expert- Multiple *Astronauts* into >3 *Astronaut Stations*

Expert- Place your *Habitats* (Pool Noodle) from *Storage Dock* poles as the top *Habitat* on the pole during DE. - driving, servos, localization, and effectors