**Moving**

**Keep Searching Location**

**Arrive**

**Location Requested**

**Trolley is Stationary**

**Stationary**

**No Location Found**

**Searching for New Location**

**New Location**

**Current Location**

**Unknown Location**

**Finite State Machine**

**Finite State Machine Table**

|  |  |  |
| --- | --- | --- |
| **Event** | **From:**  **State** | **To:**  **State** |
| Trolley is Stationary | Current Location | Current Location |
| Location Requested | Current Location | Searching for New Location |
| Moving | Searching for New Location | Searching for New Location |
| Arrive | Searching for New Location | New Location |
| No Location Found | Searching for New Location | Unknown Location |
| Keep Searching Location | Unknown Location | Searching for New Location |
| Stationary | New Location | Current Location |