HW2

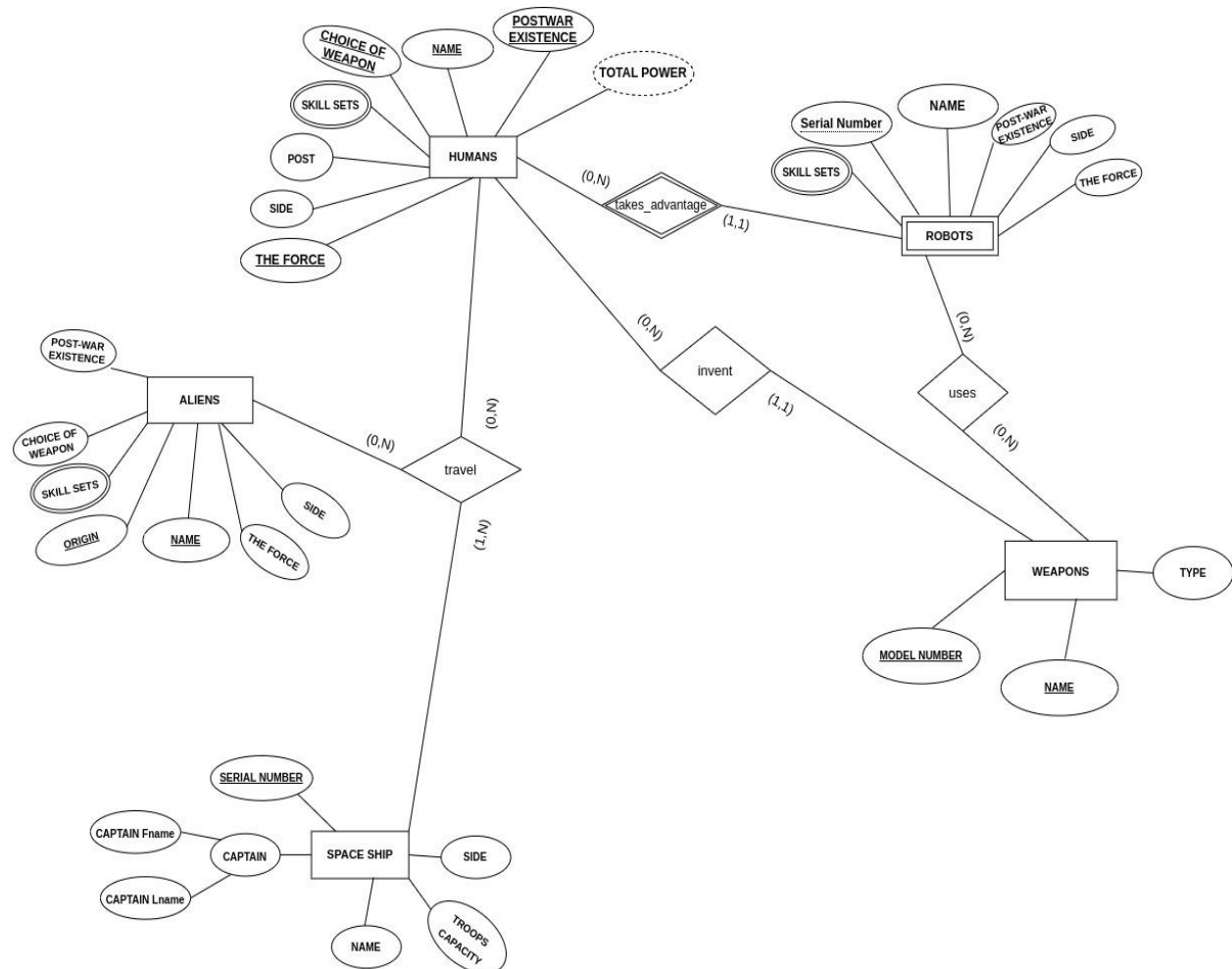## GROUP: 4

Assumptions/Changes Made:

1. Added Composite Attribute for – CAPTAIN attribute of SPACE SHIP entity type.

–**Reason**: CAPTAIN may have *FirstName* and *LastName* thus Composite and there is NO other Composite Attribute present thus added for completeness..

2. SKILL SET is Multi-valued Attribute in the following Entity Types:
   - ALIENS
   - HUMANS
   - ROBOTS

–**Reason:** Any of the Entity Types above can have multiple SKILLs like a HUMAN can **1.**drive a spaceship and **2.**fight with his Weapon

3. Considered GADGET as WEAPON

–**Reason:** there is no Entity Type with name GADGET

4. Changed ROBOT to HUMAN RelationShip's Participation Constraint to (1,1) – for making it Identifying RelationShip

–**Reason:** Because ROBOT is a Weak Entity Type.

5. Partial Key:

   Serial Number is a Partial Key for ROBOT

–**Reason:** because ROBOT is a weak entity type.

6. More than 1 Primary Key Attributes for Strong Entity Types.

–**Reason:** NAME,THE FORCE etc., are not unique when taken alone thus a

Set of attributes can be used to Uniquely identify an Entity

7.TOTAL POWER–Derived Attribute added for HUMAN Entity Type.
Calculated as **TOTAL POWER = No.of SKILL SETS**
–**Reason:** for Completeness – the er diagram has a derived attribute as well..
8. Removed MASTER Attribute from ROBOT Entity Type
–**Reason:** because there is an identifying relationship between ROBOT and HUMAN already and (MASTER is nothing but the HUMAN)