Electron Team

# Motor

## Main parameters:

### Voltage: The voltage range that the motor is designed to operate

### Stall current: the maximum current that will be needed by the motor

### No Load Current (rated): minimum current motor drawn by motor when it is free

### Torque: how much weight the motor can lift at a given distance

Stall (starting): torque when speed is zero 🡪 weight of robot  
 rated: maximum continuous torque to do the work without overheating

### Rpm: revolution per minute 🡪 speed

Weight: ...

## Calculations:

T 🡪torque (stall)  
 m🡪mass  
 a 🡪required acceleration  
 g🡪 9.8   
 α🡪 max slope degree  
 R🡪 wheel radius  
 E🡪 motor efficiency  
 N🡪motors number

P🡪 power  
 T🡪 torque  
 v🡪 linear velocity  
 R🡪 wheel radius

# Battery

## Main parameters:

### Voltage: The voltage a new battery is expected to deliver

### Capacity Rating: capacity is stored in the battery (### mAh) 🡪 time operating

### Discharge Rate: the maximum current a battery can deliver 🡪 stall current

### weight: …

## calculations: