



# Technical Report in English Technischer Vortrag auf Deutsch

## Misconceptions and Hints Missverständnis und Hinweise

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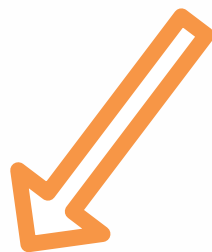
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# Technical Report in a Foreign Language

## Technischer Vortrag auf einer Fremdsprache



### Technical Part

One should know exactly  
**how something works**

### Technisches Teil

Einer muss genau wissen,  
**wie etwas funktioniert**

### Foreign Language

One should know exactly  
**how to explain it**

### Fremdsprache

Einer muss wissen,  
**wie man das erklärt**



# First PhD English Exam

## Erste PhD Deutschprüfung

1. Чтение и письменный перевод на русский язык со словарем отрывка из оригинальной или учебной литературы по специальности (время – до 45 минут; объем отрывка – 600–800 печатных знаков).
2. Ознакомительное чтение отрывка из оригинальной или учебной литературы по специальности (время – до 5 минут; объем отрывка – 1500 печатных знаков) и передача основного содержания отрывка на русском языке.
3. Беседа на иностранном языке без подготовки на одну из перечисленных ниже тем:
  - для сдающих английский язык
    - Я и моя семья • Мой город • Мой институт (университет) • Москва • Лондон • Вашингтон
  - для сдающих немецкий язык
    - Я и моя семья • Мой город • Мой институт (университет) • Москва • Свободное время. Интересы • Страны изучаемого языка • План научной работы • Моя учеба в высшем учебном заведении. Моя специальность.



# Misconceptions and Hints

## Missverständnis und Hinweise

1. This is going to be easy
  1. Es wird einfach sein
  2. One fears one is not going to make it
    2. Angst zu haben, dass einer es nicht schafft
  3. There are no exceptions
    3. Es gibt keine Ausnahmen
  4. This presentation covers everything
    4. Diese Präsentation deckt alles ab



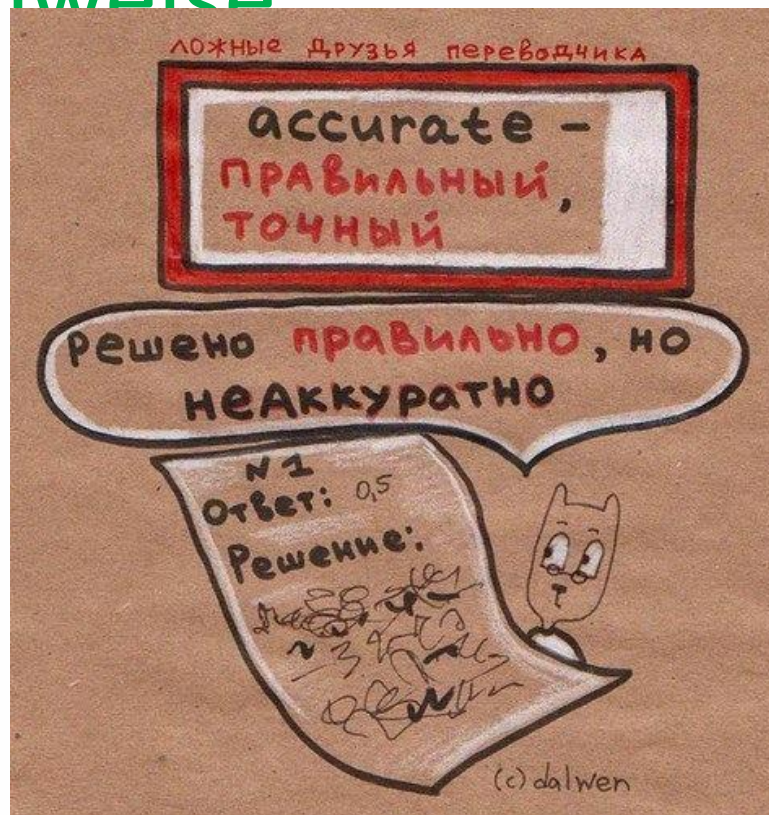
# Misconceptions and Hints

## Missverständnis und

## Hinweise

5. Literal Translation

5. Wörtliche Übersetzung





# Misconceptions and Hints

## Missverständnis und

### Hints

6. Word Order

6.

Wortordnung

**S** subject      
**WHO** It / He / She / They

   verb **V**  
are playing / cook / learnt **DO**

**O** object     
**WHAT** football / dinner / maths

place **WHERE** **P** well badly slowly manner **HOW** **M**

  **T** time   
at home / at school **WHEN** at half past ten





# Misconceptions and Hints

## Missverständnis und

### Hinweise

7. To be or not?

7. Sein oder nicht?

My name is Alex

This is a good example!

Mein Name ist Alex

Das ist ein gutes

### Beispiel!

If you think that there is no such foreigner who learns Russian and says 'Мое имя есть Джон', you are wrong 😊

Wenn ihr denkt, dass es keinen solchen Ausländer gibt, der 'Мое имя есть Джон' sagt, habt ihr Unrecht 😊



# Misconceptions and Hints

## Missverständnis und Hinweise

8. A tiger saw THE tiger **Hinweise**  
8. EIN Tiger sah DEN Tiger

a	an	the	no article
indefinite article with <b>consonants</b> (b,c,b,f,g...z)	indefinite article with <b>vowels</b> (a,e,i,o,u)	definite article <i>regardless</i> whether the noun starts with a consonant or a vowel	-
<i>not</i> specifically known to the person you are speaking with singular nouns	<i>not</i> specifically known to the person you are speaking with singular nouns	specific object that <i>both</i> the speaker and the listener <i>know</i> plural nouns	general things uncountable nouns
-	-	collection of states in a country (The United States of America, The UK, The Irish Republic)	countries, states, counties, provinces, lakes, mountains
-	-	Multiple areas: The Philippines, The Netherlands, the British Isles	others: sports, meals, places, transport, rivers, oceans, seas
-	-	Geographical points in the globe (the North Pole, the equator)	-
-	-	one and only particular thing (the sun, the moon, the wind, the Buckingham Palace)	-

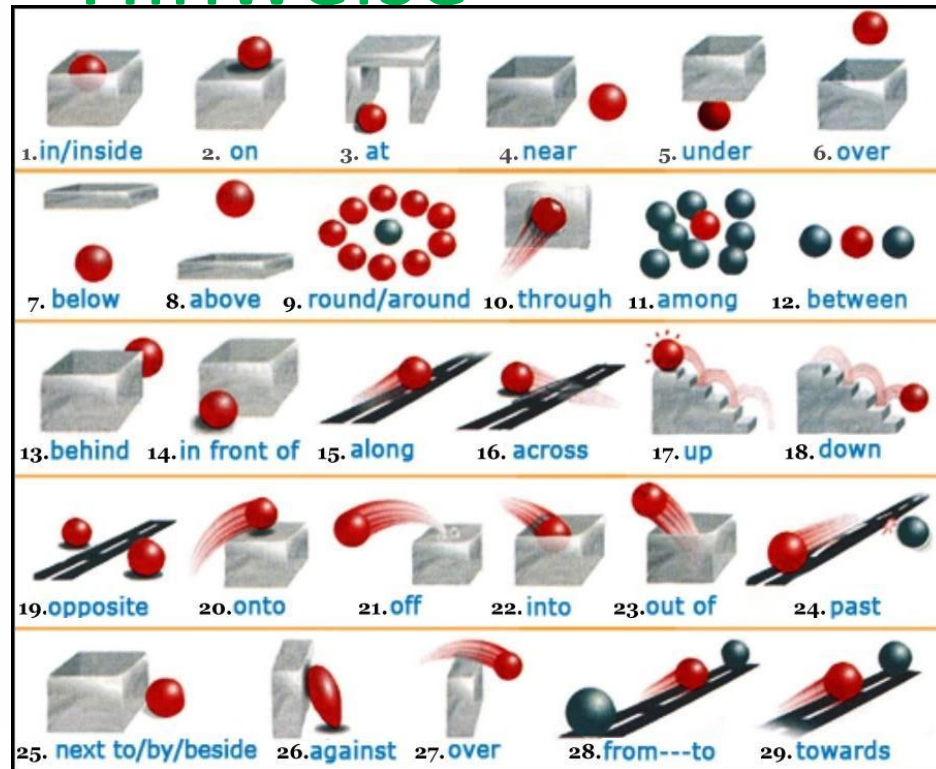




# Misconceptions and Hints

## Missverständnis und Hinweise

9. Prepositions  
9. Präpositionen





# Common Mistakes

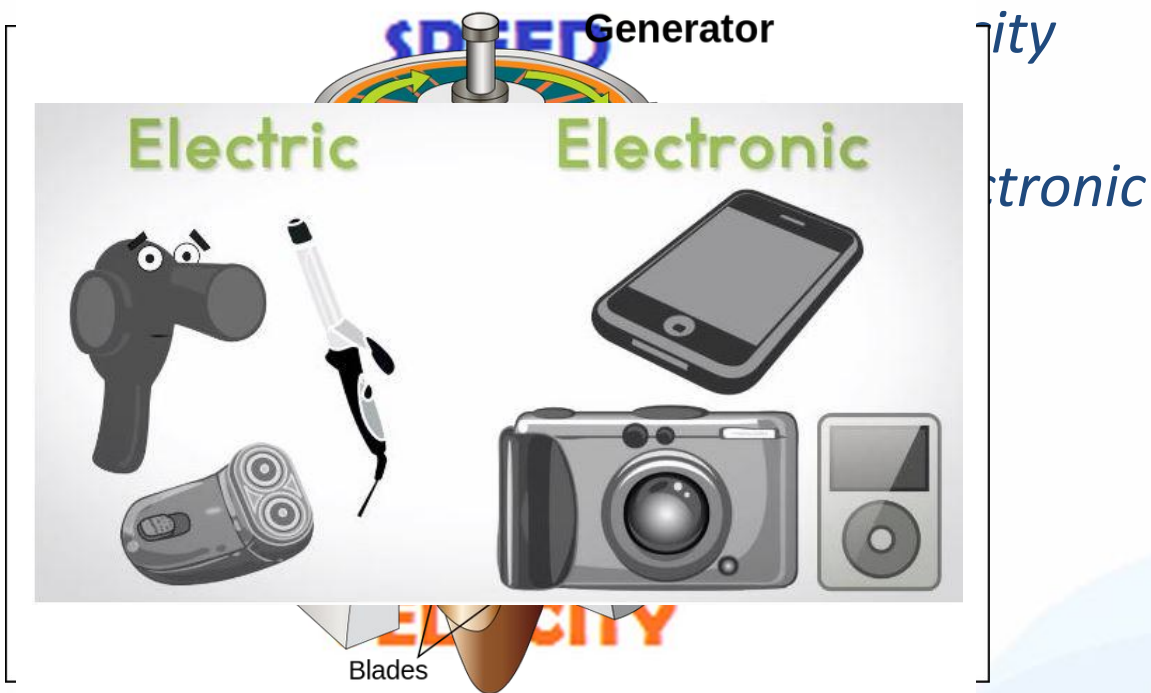
## Verbreitete Fehler

1. Words

1. Wörter

*accurate ≠ precise*

*accurate ≠ careful*





# Common Mistakes

## Verbreitete Fehler

### 2. Prepositions and Articles

### 2. Präpositionen und Artikeln

*We came here on a car = We came here **on the roof** of our car*

#### 5 COMMON MISTAKES

1 Incorrect: This car  
Correct: This car  
*We came here by car = Car was the **means of traveling***

2 Incorrect: When  
Loc  
*He came here on time = He came **at 9.45***

Correct: When  
Loc  
*He came here in time = He came **exactly at 10***

3 Incorrect: Let's  
Correct: Let's  
*I am a student = Like any other in our university  
I am the student = ... you were talking about*

4 Incorrect: I must  
Correct: I must  
*To connect wires = A general skill to connect wires*

5 Incorrect: She insisted to pay  
Correct: She insisted **on** paying.  
*To connect the wires = To connect these wires*

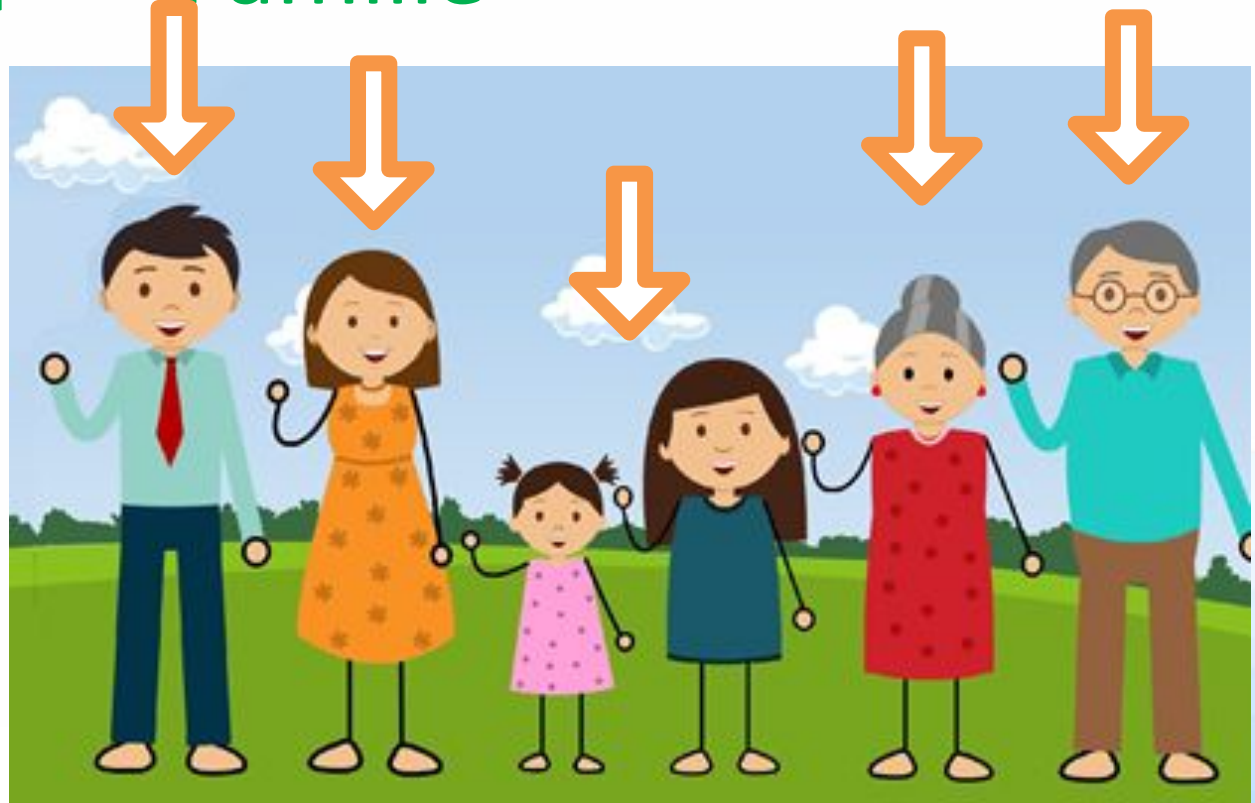




# My Family

## Meine Familie

a father, a husband  
ein Vater, ein Ehemann  
a mother, a wife  
eine Mutter, eine Ehefrau  
a child  
ein Kind  
children, siblings  
die Kinder,  
Geschwister  
a grandmother  
eine Großmutter  
grandfather  
ein





# My Hometown

## Meine

## Heimatstadt



a country  
ein Land



a town  
eine Stadt

My hometown is Orel, it is situated in the European part of Russia  
Meine Heimatstadt ist Orel, sie befindet sich in der europäischen Teil  
von Russland





# My Hometown

## Meine



Orel ???  
Oryol

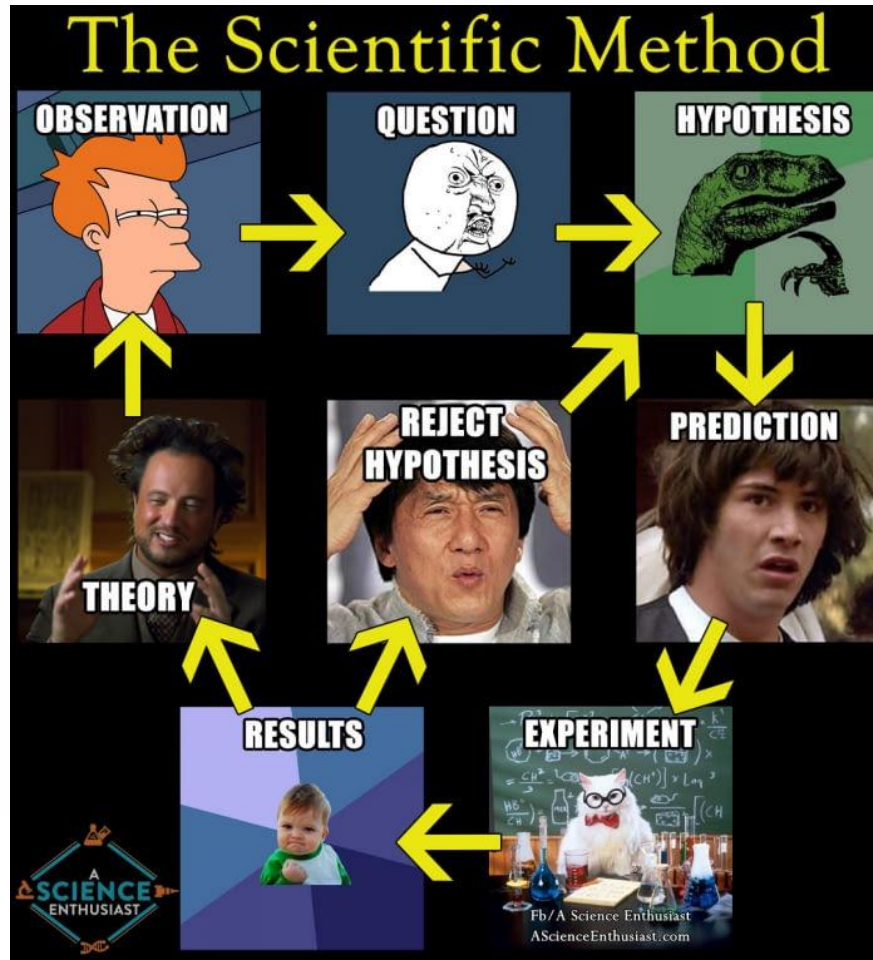


Munich =  
München



# My Scientific Work

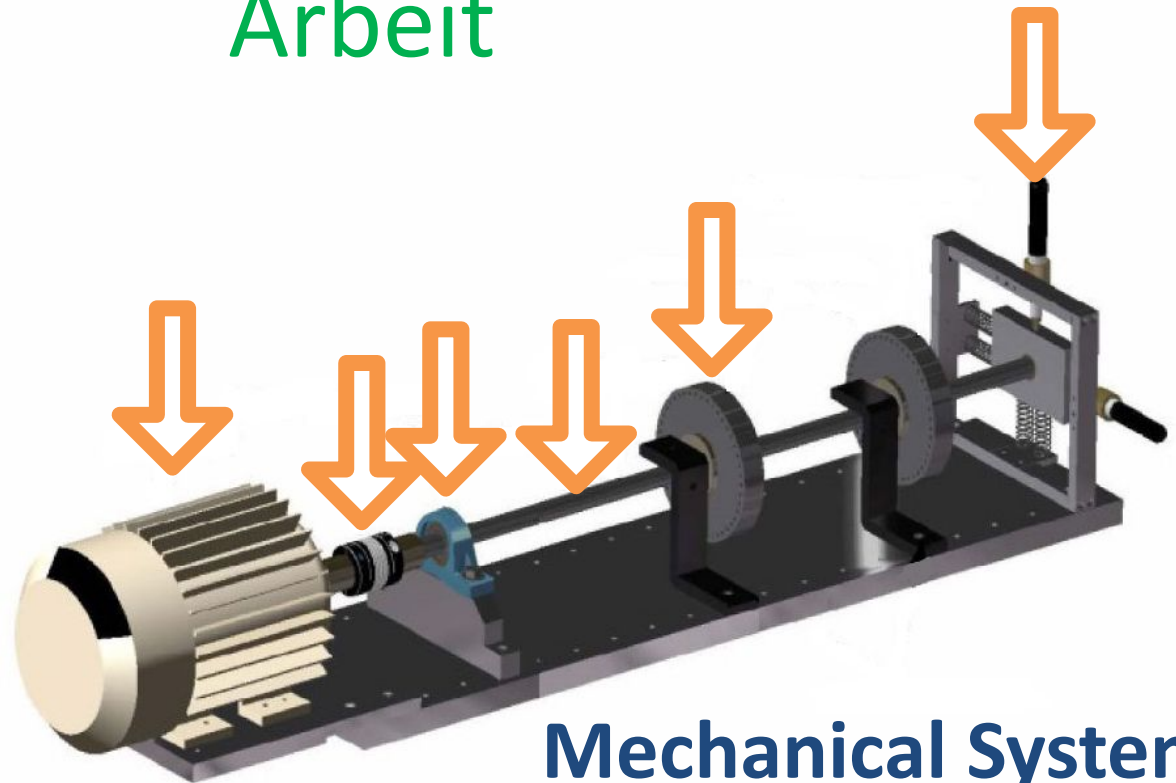
## Meine Wissenschaftliche



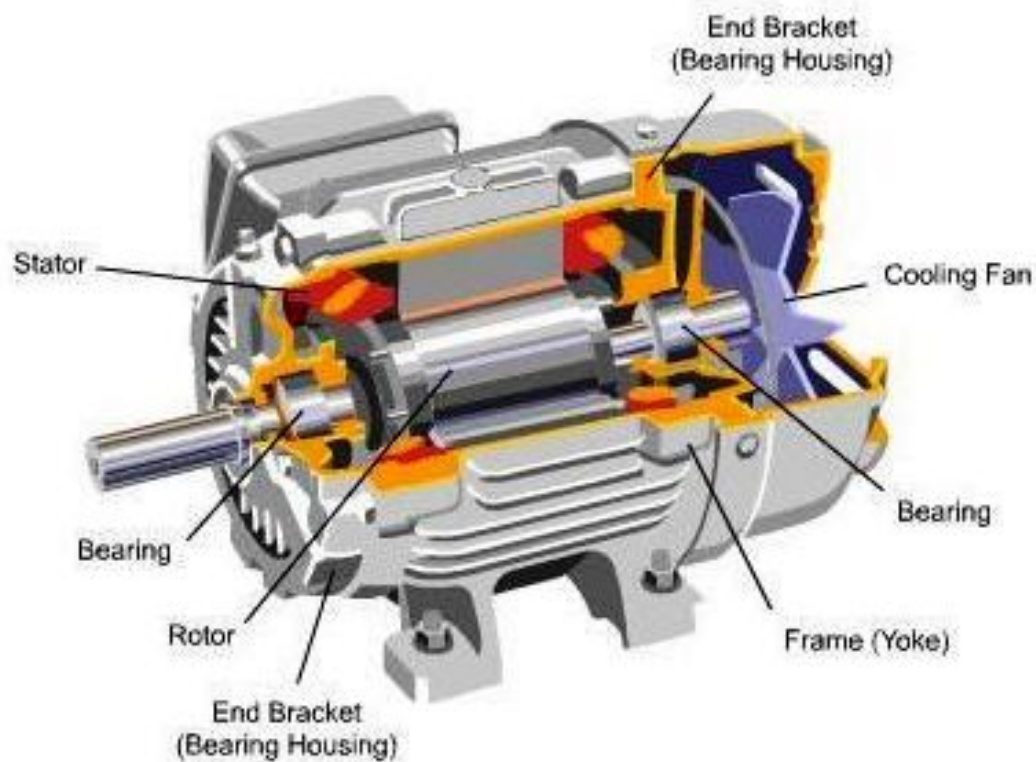


# My Scientific Work Meine Wissenschaftliche Arbeit

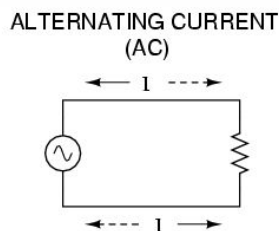
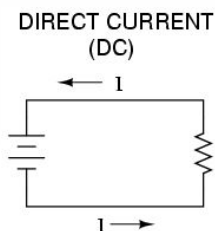
an electromotor  
ein elektromotor  
a coupling  
eine Kupplung  
a bearing  
ein Lager  
a shaft  
eine  
Rotorwelle  
a load  
eine Ladung  
a sensor  
ein Sensor



**Mechanical System**  
**Mechanisches**



Cutaway View of Motor



According to the International System of Units (SI), **rpm** is not a unit. This is because the word *revolution* is a semantic annotation rather than a unit. The annotation is instead done as a subscript of the formula sign if needed. Because of the measured physical quantity, the formula sign has to be **f** for (rotational) frequency and  **$\omega$**  or  **$\Omega$**  for angular velocity.

The corresponding basic SI derived unit is  **$s^{-1}$**  or **Hz**. When measuring angular speed, the unit **radians per second** is used.

$$1 \text{ rad/s} \leftrightarrow \frac{1}{2\pi} \text{ Hz}$$

$$\leftrightarrow \frac{60}{2\pi} \text{ rpm}$$

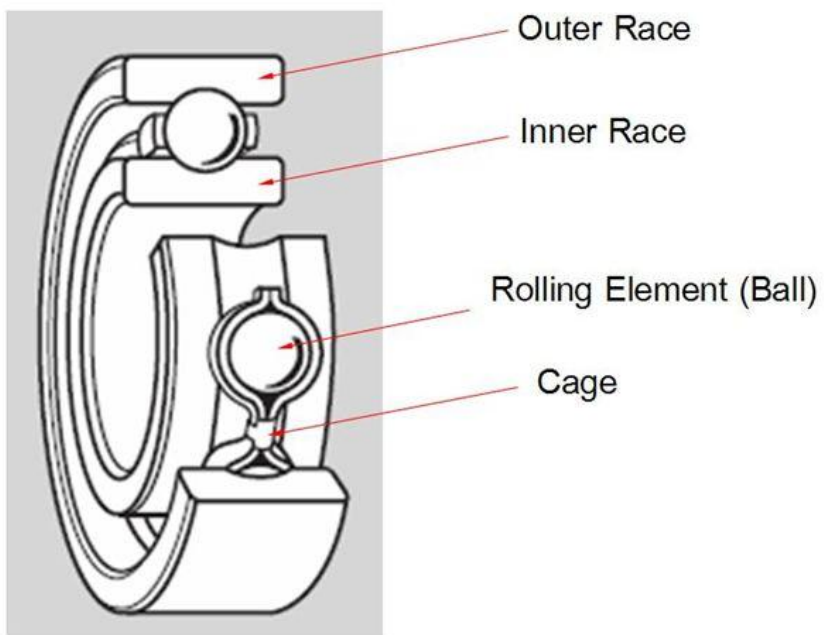
$$1 \text{ rpm} \leftrightarrow \frac{1}{60} \text{ Hz}$$

$$\leftrightarrow \frac{2\pi}{60} \text{ rad/s}$$

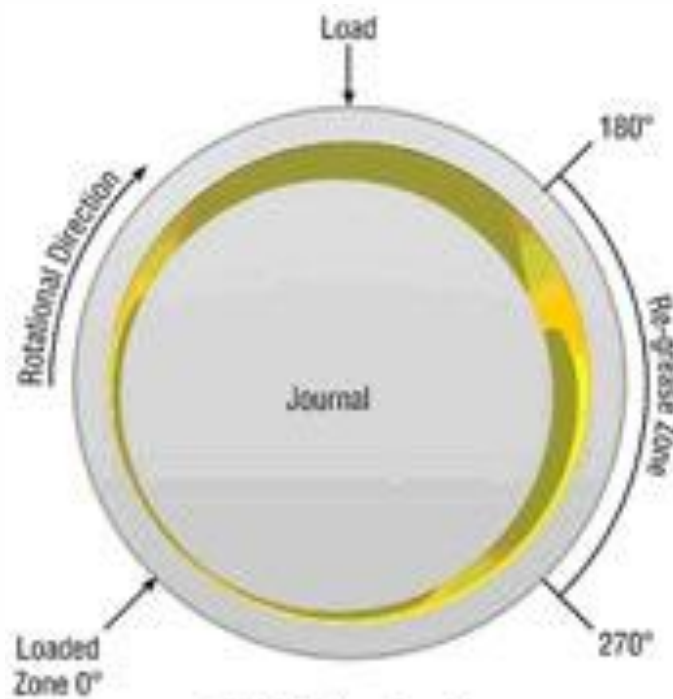
$$1 \text{ Hz} \leftrightarrow 2\pi \text{ rad/s}$$

$$\leftrightarrow 60 \text{ rpm}$$





Elements of a Rolling Element Bearing



Fluid Film Bearing





## Sensor

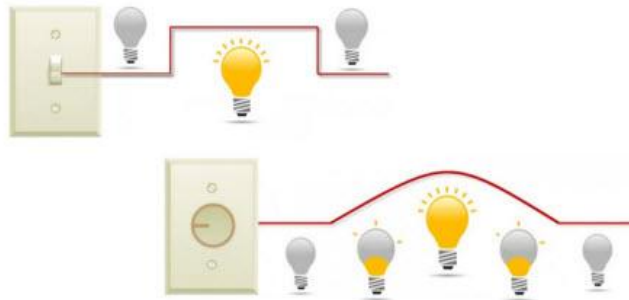


the ones that  
**detect a  
stimulus**



the ones that  
**detect a value  
of a stimulus**

### Understanding Discrete & Analog I/O





# Anatomy of a Scientific Paper

## Are All Apples Red?

by  
Ida Cortland

### Abstract:

We examined several apples' color. Although most are red, some are not.

### Introduction:

An age-old question is: are all apples red? MacIntosh (1993) thought so. G. Smith (1999) begs to differ. We hope to resolve this issue once and for all.

### Methods:

We went to the local grocery store and bought one of every apple they had. We took them home and looked at them.

### Results:

We found four red apples, one green apple, and two yellow apples.

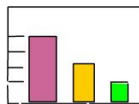


Figure 1

### Discussion:

Since we found one yellow apple and two green apples, it must be true that all apples are not red. We concur with G. Smith's findings.

### References:

MacIntosh (1993) *Journal of Fruit Science*. 4(3): 121-135.  
Smith, G. (1999) *Apple Technology Today*. 7(3):4-8.

*Pomes and You, Volume 3, Issue 4 (2003) p. 8*

## Equation

vs.

## Function Notation

\* equation has variables  $x$  and  $y$

Example:  $y = 4x - 3$

\* the "y" in the equation is commonly replaced with  $f(x)$  or  $g(x)$

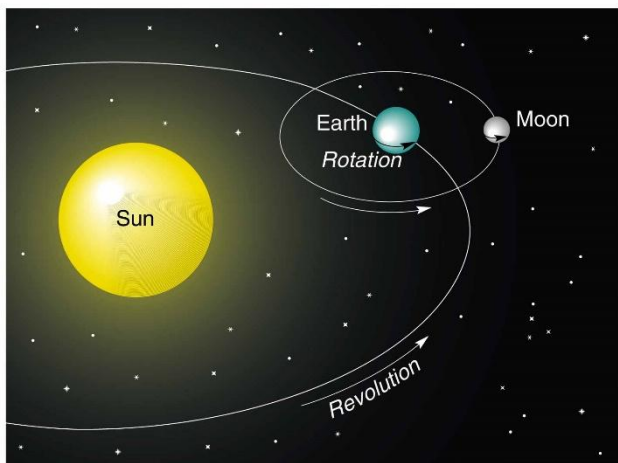
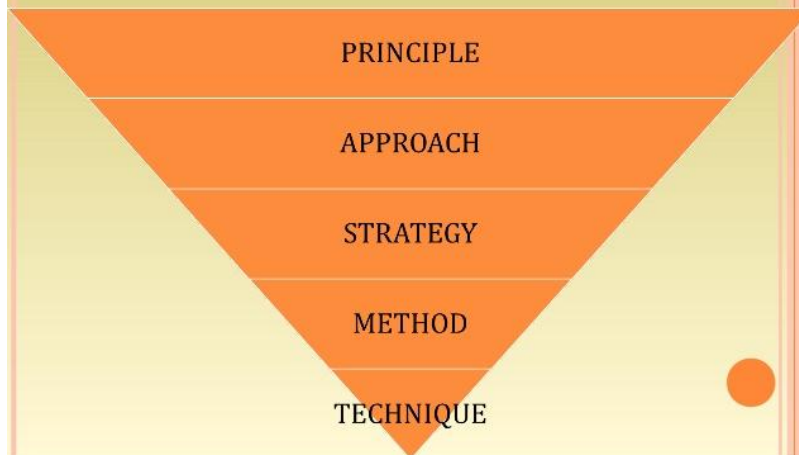
Example:  $f(x) = 4x - 3$

$f(x)$  is read as "f of x"

$f(x)$  represents the range values.

So  $f(2)$  means to find the value of the function when  $x$  is 2. The expression inside the parentheses represents  $x$ .

## DIFFERENCE AMONG THE TERMS TECHNIQUE, METHOD, STRATEGY, APPROACH AND PRINCIPLES





**Thank you!**

**Danke!**

**Questions,  
please!**

**Fragen, bitte!**