PRODYOGIKI '19

Sanchar

INTRODUCTION :

Telegram, Telegraph, Morse Code. Rang any bells??
If yes, then you already have a headstart!! As the tittle suggests this competetion is between teams fighting for telecom superemacy. So get ready to relive thing that shrank the world, to relive evolution of communication live **Sanchar**.

PROBLEM STATEMENT :

The teams will be required to make a wireless communication apparatus (transmitter and receiver) operating in range of 80-120MHz (FM radio range) so as not to interfere with other **necessary communication frequencies.**

Voltage sources will be provided

JUDGING :
    The devices will be judged according to
       1. **Design**
       2. **Functionality**

The testing process will be **steady state** process thus no significant translation/movement will be performed during testing.

Marking System will be of relative type **i.e.** The team that performs best in a criteria will be awarded maximum points and others will be rewarded accordingly(linearly,quadratically*).

Design :

    1. **Range :**
       The range of transmitter will be measured against receiver of Prodyogiki team so as to provide equal amplification to each reciever. Also the voltage provide will be small enough to get ranges within institute limits.

PRODYOGIKI '19

2. **Efficiency :**
   This will also be tested by Prodyogiki team's Receiver. At a particular distance from transmitter. The pecentage of power received of the power transmitted.

3. **Flexibility** :
   The devices will be tested against the number of different frequencies they can communicate on seperated by atleast 5MHz example(87MHz,93MHz,100MHz).

4. **Build Quality :**
   Water Resistant(theoritically)
   Sturdy build (not loose)

5. **Form Factor :**
   Ergonomics(Ease of use)
   Size (collapsed size) cuboidal volume

Functionality :
This part will put both **man** and **machine** to test. Teams will be seperated by equal distances and turn wise they will be given passages most of which they will have to transmit in given time
non-verbally(no voice communication) They will be alllowed to keep any charset of their choice.
The passage will consist of characters [a-z][0-9][. , : ; <space> <enter>] case insensitive and all **gibberish** so to avoid guessing correct spelling. Missed characters will be considered as wrong charcters.

Judging will be based on :
   Accuracy 3credits: [0,1] qudratically
   Length 2credits: Relative Linear

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*Rules can be altered to maintain fairness of the competion