RPM2RT Guide

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1 Introduction

This program calculates the revolution time (RT) from a given RPM value. The RT can be used as camera exposure time, flash interval time etc. when capturing images from a rotating system.

2 System Requirements

Operating System: ALL

Python 3

3 Calculation Method

Inverting the RPM value and then multiplying it with 60 gives the RT value. It is shown in the following equation:

$$rt = \frac{60\,s/min}{revolutions/min} = \frac{60}{revolutions}\,s$$

4 Use Cases

Calculate the revolution time when the system is rotating at 2800 RPM:

```
$ rpm2rt.py 2800
RPM to Revolution Time

Revolution time:
21.43 ms
```

By adding the optional -b argument, the result is given in bare format (unit of s is hidden):

```
$ pm2rt.py 2800 –b
0.0214
```

By using the -a switch (ALL), the RT is presented with these units: s, ms and µs. The output is shown here:

```
$ rpm2rt.py –a 2800
RPM to Revolution Time

RPM: 2800

=>

Revolution time:
0.0214 s
 21.43 ms
 21429 µs
```