

```
clear variables
R_gain = 110; % ohm
gain = 1 + 49.4e3/R_gain
```

```
gain = 450.0909
```

```
% full scale moment at center of the load cell at 10 kg
% which outputs 1 mV
tau_fs = 10 * 9.8 * 0.036 % Nm
```

```
tau_fs = 3.5280
```

```
v_out_fs = 1e-3 * gain
```

```
v_out_fs = 0.4501
```

```
adc_count = 2^12;
adc_vref = 3.3;
adc_v_per_count = adc_vref / adc_count
```

```
adc_v_per_count = 8.0566e-04
```

```
adc_count_fs = v_out_fs/adc_v_per_count
```

```
adc_count_fs = 558.6583
```

```
tau_per_adc_count = tau_fs / adc_count_fs
```

```
tau_per_adc_count = 0.0063
```