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```
% Lab 10
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% Nov 8 2018
% Mech103
```

1: for loop

```
data = xlsread('lab_10_data.xlsx','A3:I1011');
j=0;

for i=3:6;
    j=j+1;
    A(1,j)=max(data(:,i));
    B(1,j)=min(data(:,i));
end

max_x=A(1,1);
min_x=B(1,1);
max_y=A(1,2);
min_y=B(1,2);
max_z=A(1,3);
min_z=B(1,3);
max_r=A(1,4);
min_r=B(1,4);
```

2: While loop

```
t = 0;
r = 0;
x_accel_resultant = 0;
accel_resultant = 0;

while t <= 2 && accel_resultant <= 85
    r = r+1;
    t = data(r,1);
    accel_resultant = data(r,6);
    if r-1 > 0
        x_accel_resultant = x_accel_resultant+data(r-1,3);
    end
end

sum_x_accel = x_accel_resultant
```

```
sum_x_accel =

  -7.0636e+03
```

3: Calculating average mass

F = M*A

```
f = data(:,2);
a = data(:,3);
m = f./a;

average_mass = mean(m)
```

```
average_mass =

    0.0955
```

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