Phase 3:

Measuring board every 5cm.

```
%A0 = [0 0; 5 5.38; 10 10.50; 15 15.36; 20 20.69; 25 25.81; 30 30.72; 35 35.59; 40 40.55; 45 45
```

Theoretical:

```
x = [0; 5; 10; 15; 20; 25; 30; 35; 40; 45; 50; 55; 60; 65; 70; 75; 80; 85; 90; 95; 100]
```

```
x = 21×1
      0
      5
     10
     15
     20
     25
     30
     35
     40
     45
      :
      :
```

Experimental

```
y = [0; 5.38; 10.50; 15.36; 20.69; 25.81; 30.72; 35.59; 40.55; 45.62; 50.57; 55.66; 60.67; 65.6
```

```
y = 21×1
        0
   5.3800
  10.5000
  15.3600
  20.6900
  25.8100
  30.7200
  35.5900
  40.5500
  45.6200
      :
      :
```

```
A = [x ones(21,1)]
```

```
A = 21×2
      0     1
      5     1
     10     1
     15     1
     20     1
     25     1
     30     1
     35     1
     40     1
     45     1
      :
      :
```

Solve for y = mx + b

```
Z = A\y
```

```
Z = 2×1
    0.9994
    0.5125
```

y = .9994*x + 0.5125

```
plot(x,'--x')
hold on
plot(y,'-o')
hold off
```