

## Key Elements to Confirm

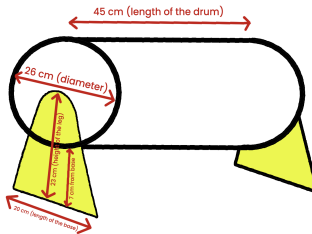
### Drum design:

- Design of the outside bit - 45 cm width by 26 cm diameter
- Material of the outer body of the drum: wooden ply
- *Material of the leg:* wooden ply

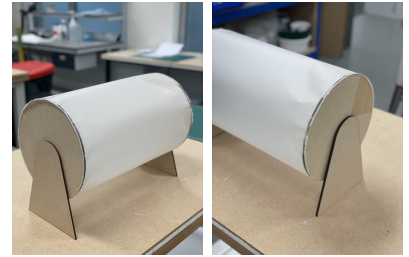
### Rotary encoder

- Needs to be installed
- Function: so that the spindle moves and the encoder's body stays dormant (as the body is connected to wires), while the drum is spinning but not the inside handle which will have the light
- Encoder to be hidden on the side (thus same thickness to be added on the other side too)
- Elastic band as an option to attach the spindle of the encoder to the drum handle
- Encoder to be held in place with screws/metal plate instead of any form of gluing (recommendation)

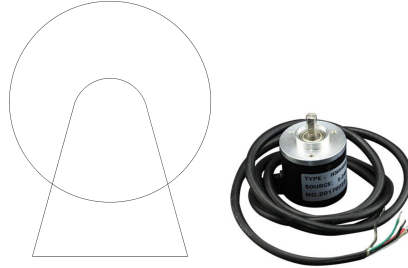
### Drum Design Dimensions



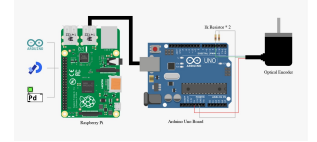
Simplified diagram of the drum with measurements



Prototype & mock drum in real-size



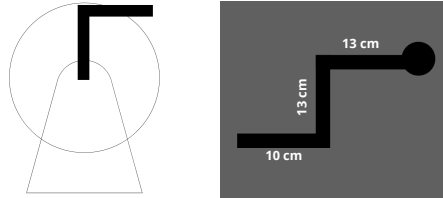
Front view intersection of the drum & leg



[https://uk.farnell.com/dfrobot/sen0230/incremental-photoelectric-rotary/dp/3769954?gclid=CjwKCAjw3qGYBhBSEiwAcnTRLk\\_Iv0SsgFc61allB9cpCYxdtzm\\_sVva\\_SsmwDOrfGZfveTWoX983BoCteWQAvD\\_BwE&mckv=dc%7Cpcriid%7C%7Cplid%7C%7Ckword%7C%7Cmatch%7C%7Cslid%7C%7Cproduct%7C3769954%7Cpgrid%7C%7Cptaid%7C&CMP=KNC-GUK-GEN-SHOPPING-SMART-PMAX-Medium\\_ROAS-Test915&gross\\_price=true](https://uk.farnell.com/dfrobot/sen0230/incremental-photoelectric-rotary/dp/3769954?gclid=CjwKCAjw3qGYBhBSEiwAcnTRLk_Iv0SsgFc61allB9cpCYxdtzm_sVva_SsmwDOrfGZfveTWoX983BoCteWQAvD_BwE&mckv=dc%7Cpcriid%7C%7Cplid%7C%7Ckword%7C%7Cmatch%7C%7Cslid%7C%7Cproduct%7C3769954%7Cpgrid%7C%7Cptaid%7C&CMP=KNC-GUK-GEN-SHOPPING-SMART-PMAX-Medium_ROAS-Test915&gross_price=true)

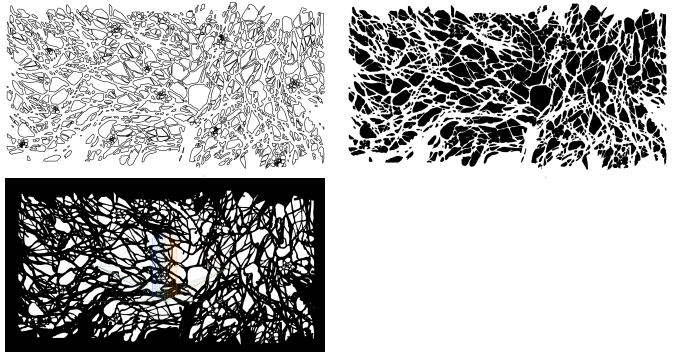
### Handle

- Confirm design: 2 options
- Size: 13 cm length and 2 cm thickness
- Material: same as the leg/body of the drum
- Able to rotate both clockwise and anti-clockwise



### Designed pattern

- AI file ready
- Size: 13 cm length and 2 cm thickness
- Material options: bendable wood/white solid material/ no acrylic
- Curved circle with the 'laser cut' on it
- No transparent layer on the inside to prevent light flare
- Durable
- Bendable for circular shape



### Light inside the drum:

- LED strip light/battery powered (hence the battery of the light needs to be hidden on the side, unless we can think of a light that doesn't need any power connection outside - to be discussed)
- Size of the stick inside:
- Dimension: 2 cm, length - 45 cm
- Light on the bottom side hidden (square shaped 2 cm wide bands all around to cover the light)



### Overall Design/Structure

### Table design + material + hand print on it:

- table size needs to be altered a bit if possible (old size 1500 mm by 1100 mm **new suggested size 1500 mm by 858 mm**)
- Position of drum on the table, dictating the placement of the hand
- Ply base (white-wash option check)
- Grey board/white board laser cut in pattern for the table
- Testing out if we want the drum to be a bit elevated? maybe on an 1 inch box to give it more space to shine/light to throw shadows

