

## Team 08 Current Prototype

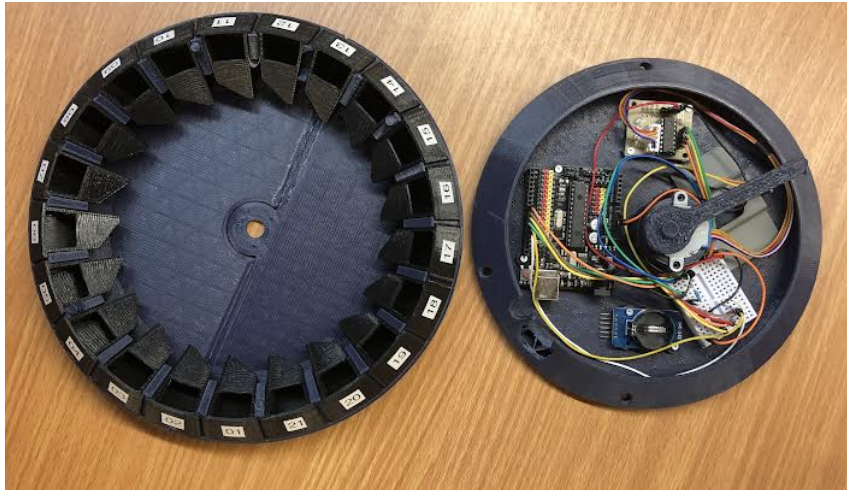
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## Roulette Design

#	Requirement Type	Requirement Statement	Roulette Wheel
1	Functional	The device will have a visible light function that serves to remind the client to take the prescribed pills	Yes
2	Functional	The device will stop the alert (visual) to take pills once the pills have been taken.	Yes
3	Functional	After a specified time, if pills have not been taken, the device will stop the alert (visual)	Yes
4	Functional	The device will allow for a reminder to take medicine at least three times a day	Yes
5	Documentation	The device will come with a Manual and Instructions	Yes
6	Ease of use	The pills will be easily accessible for an elderly person	Yes
7	Functional	The device will hold one week's worth of pills	Yes

**Table 1:** This table shows the level I requirements and how our prototype functions with respect to them.



**Figure 1:** Bird's eye view of the Roulette design. The top half of the image is the lid of the device.

Included within the lid are Arduinos, a stepper motor, its driver, and a “pushing” rod. The bottom half of the image is the container of the device. The device includes 21 slidable compartments, labeled 01 - 21, 01 standing for Monday morning, and 21 standing for Sunday evening. 02 would therefore equate to Monday afternoon, and so on for one full week. The compartments are capable of holding 14 pills.



**Figure 2:** Bird's eye view of the Roulette design with both pieces connected. The wire inserted into the device from the right side provides power to the Arduino and stepper motor. The LED positioned at the center of the device functions as a reminder system, blinking when the time is right to take medication. The yellow button at the lower left end side of the device will stop the LED from blinking once the user takes the medication.

Video Demonstration:

[https://drive.google.com/file/d/1Bs17s5GY-8sc6XiBq\\_Qc0CObXEJz91dM/view?usp=sharing](https://drive.google.com/file/d/1Bs17s5GY-8sc6XiBq_Qc0CObXEJz91dM/view?usp=sharing)