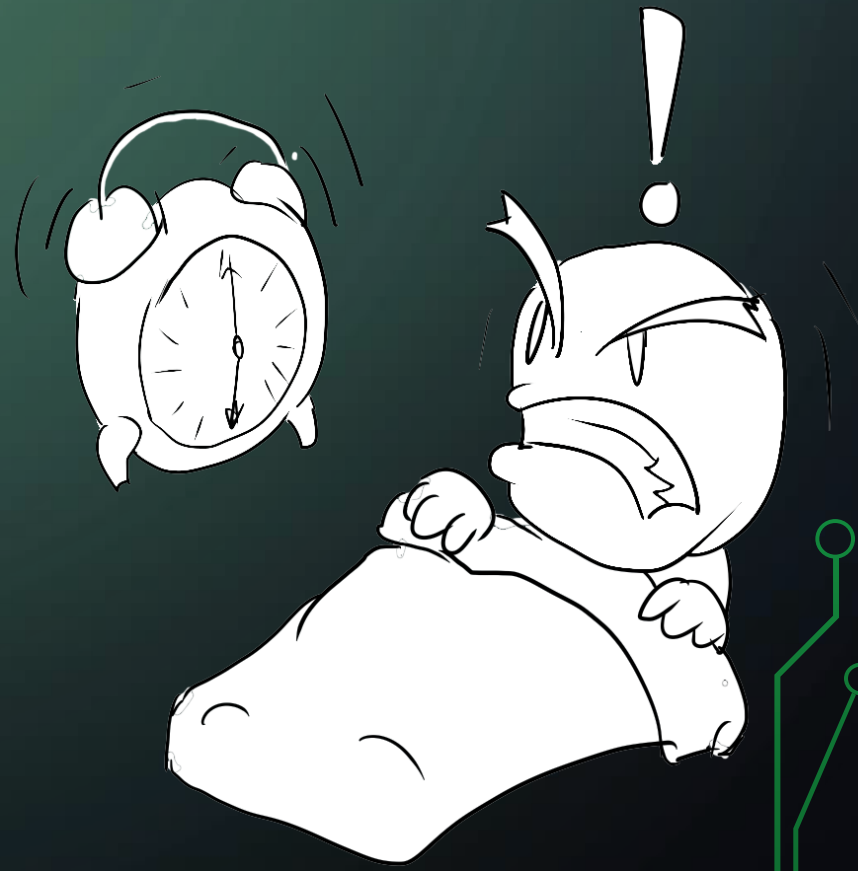
IOT ALARM CLOCK

WITH CALENDAR INTEGRATION, RADIO AND WEATHER INFO.

PROBLEM

- Nothing is worse than waking up to the standard alarms
  - They are either loud and scary, or you'll hate them fast
- Starts your day out in a very negative way
  - You become unprepared and negative for the rest of the day
- How can this be eliminated?



PROJECT DESCRIPTION

- Following questions need to be answered:
  - How can you be awakened comfortably?
  - How can you be awakened in time?
  - How else can tthe morning routine be helped?

POSSIBLE SOLUTION

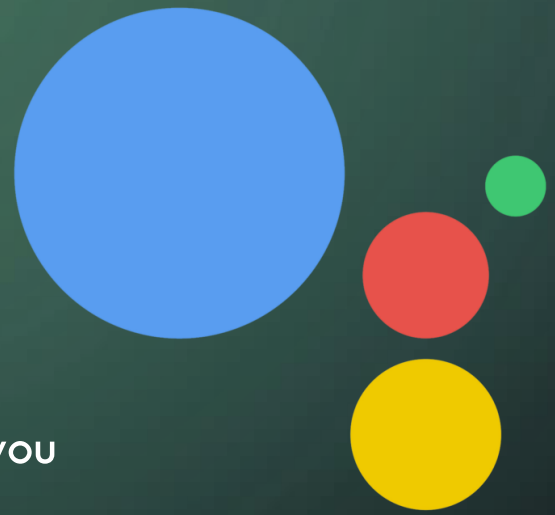
- Comfortable awakening can be achieved thusly:
  - Slow and calm ramp of awakening
  - No traumatizing alarm sounds
    - How about music?
    - Spotify has an API for playlists and user data.
    - What else could go into this?

POSSIBLE SOLUTION

- To be woken up at the correct time:
  - The thing needs to know when the time is
    - Should be automatic, i.e. Google Calender
    - Maybe Sleep Cycle API could help for natural awakening
      - Worth exploring
- In case of disconnection from the internet
  - Would need a hard set time alarm

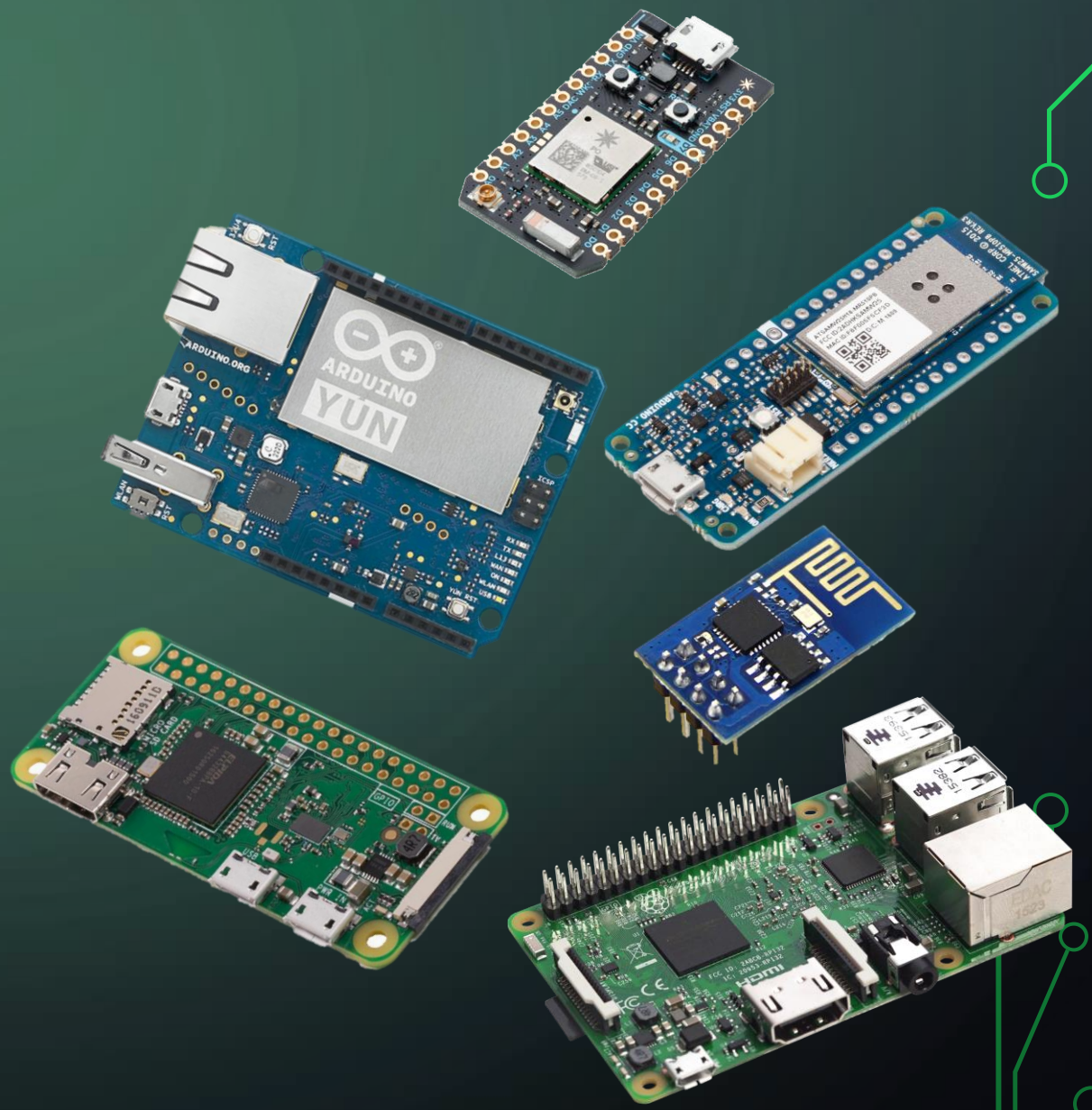
POSSIBLE SOLUTION

- To make the morning routine easier
  - How about Google Assistant?
    - The thing only needs to record
    - The processing happens in Google's Cloud
  - You could also have weather on a display, or read to you
  - Info could be tailored to individuals needs



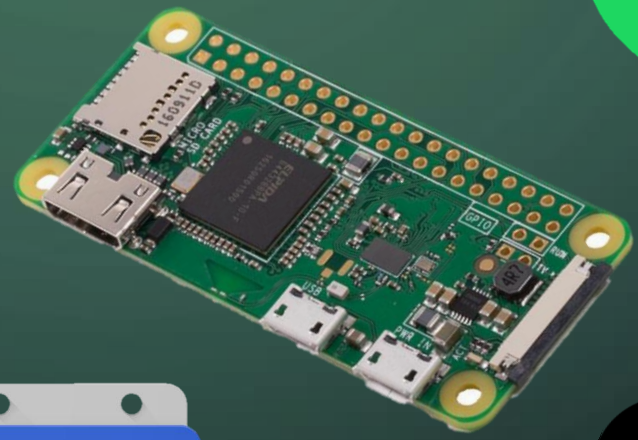
HARDWARE

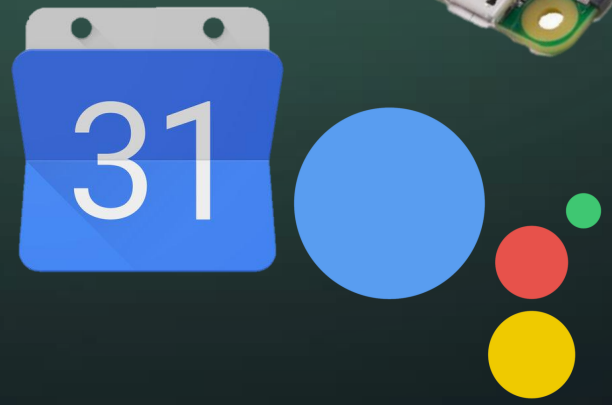
- Wi-Fi web connection is possible through:
  - Particle Photon
  - Arduino Yun, MKR1000
  - ESP8266
  - Raspberry Pi Zero W / 3
- The Pi however, handles multimedia most elegantly



HARDWARE – POSSIBLE SOLUTION

- Raspberry Pi Zero W
- With Wi-Fi and speaker + microphone
- Buttons for an interface
- Spotify installation will handle the playback
- Connects to:
  - Spotify API
  - Google Calendar
  - Google Assistant
  - Weather services
  - Sleep Cycle API





END RESULT

- A Prototype that can awaken the user with music
- Calendar controlled
- Can say ”good morning”, and tell you the weather etc.