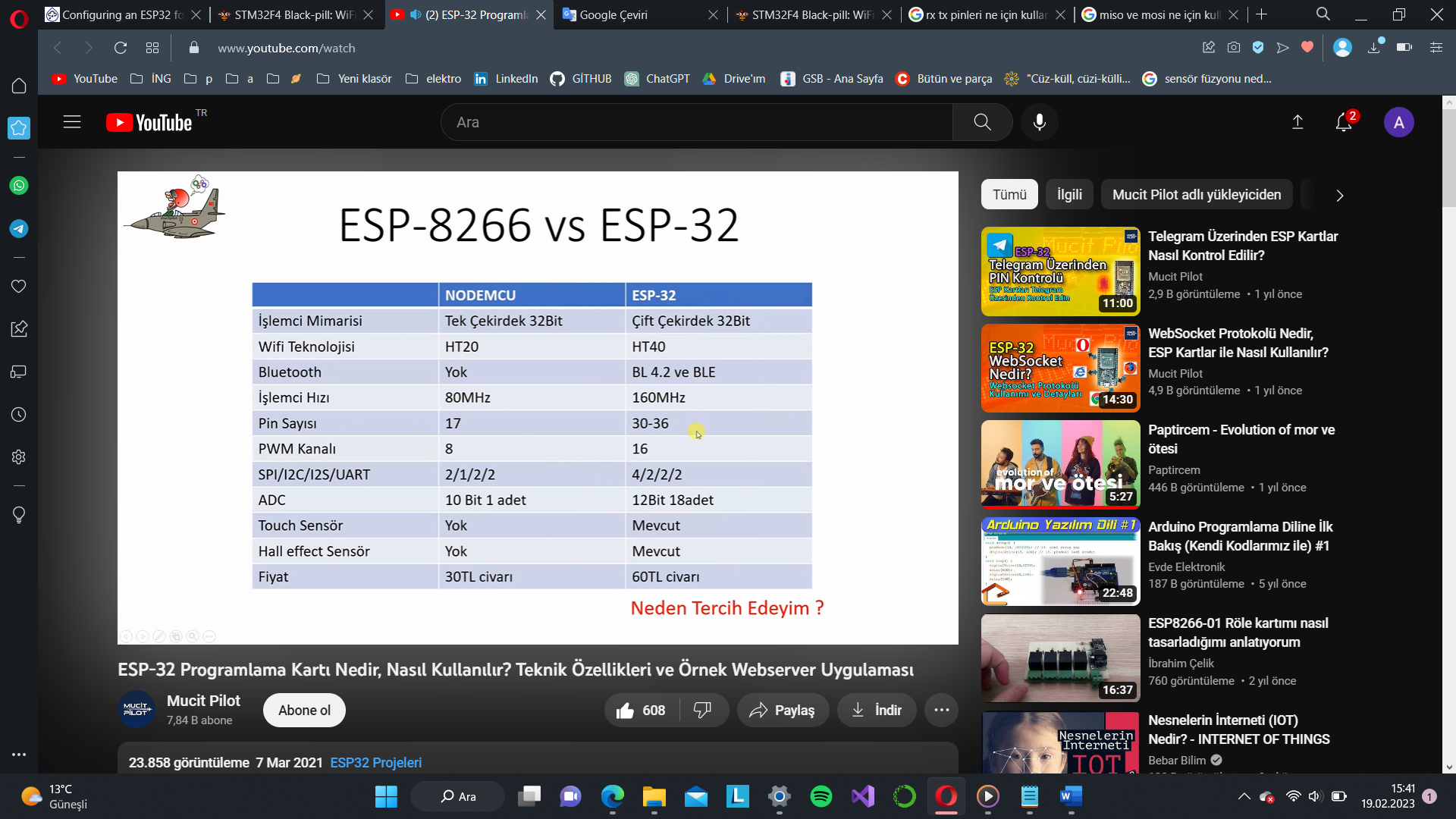
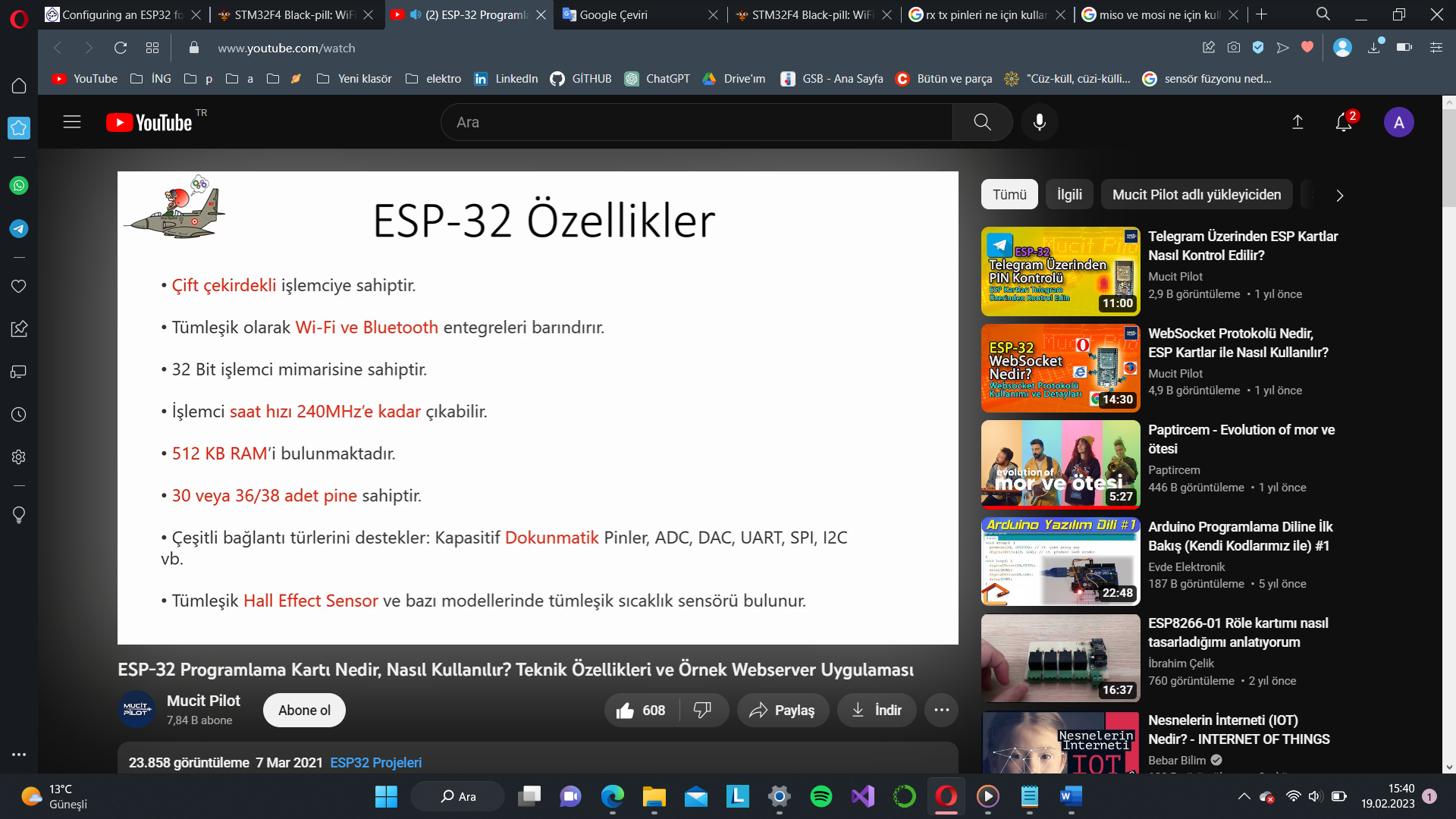
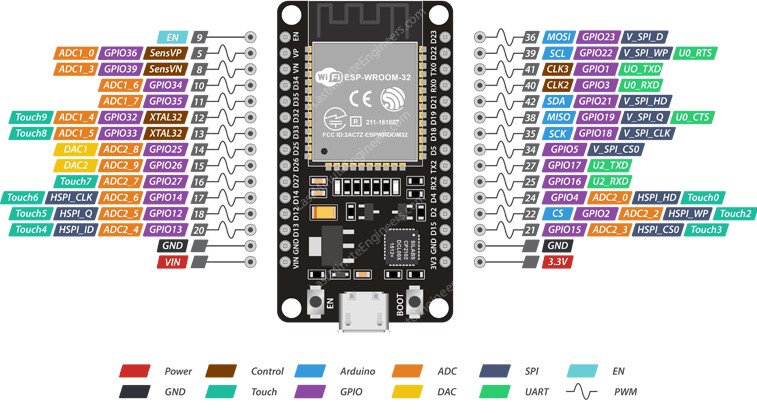
ÖNEMLİ!! ESP32 nin diğerine göre daha fazla dijital pine sahiptir.









<https://www.espressif.com/sites/default/files/documentation/esp32_datasheet_en.pdf>

gerber dosyası içindeki layersler sayesinde üretici firmalar üretim yapabiliyo.

alt+3:3botutlu çizim

jtag pinleri: programlarken bu pinler üzerinden iletişim kurulur. yani koslar onun üzerinden atılır. (otg)

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<https://www.youtube.com/watch?v=aVUqaB0IMh4&t=13s>

<https://www.youtube.com/watch?v=C7-8nUU6e3E&t=1s>

<https://www.google.com/search?q=stm32f401+kicad+pcb&client=opera&hs=Ggw&sxsrf=AJOqlzX84lctuexwtslxsNhoOiNyWDPYAg:1677006019394&source=lnms&tbm=isch&sa=X&ved=2ahUKEwiBwcmgpqf9AhUVR_EDHQqeBa8Q_AUoAXoECAEQAw&biw=1870&bih=894&dpr=1#imgrc=y0L8IVnGnv7xWM>

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