Drone

https://tello.oneoffcoder.com/index.html
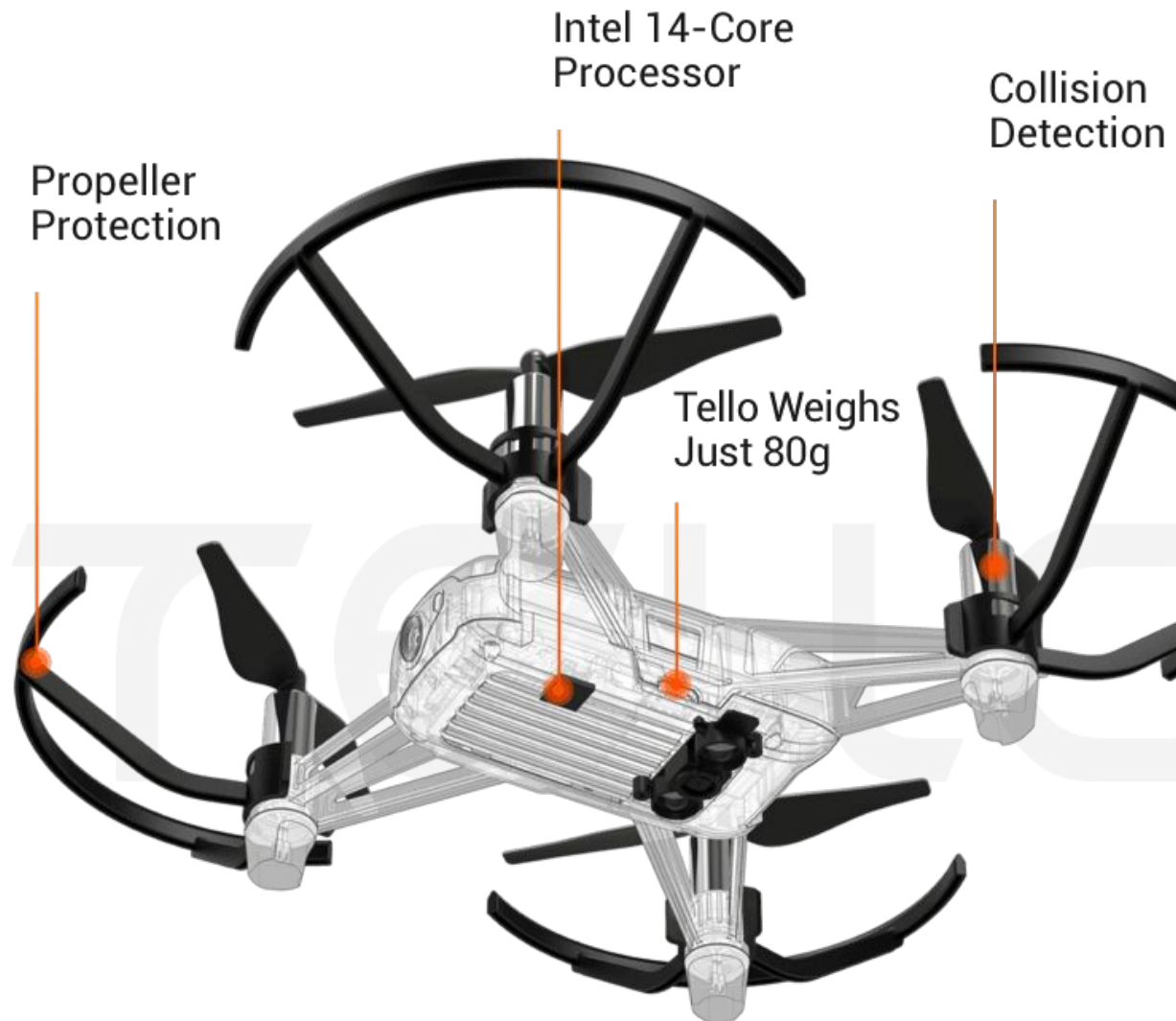
저녁이 있는 프로젝트
오상훈
6 Hours, 1 Month

Goal

❖ Refer : https://github.com/Matthias84/awesome-tello

❖ See : https://youtu.be/8WXEkjuXiUE

❖ 해 보기

➢ with Tello and Tellome App

Tello Edu

- ❖ Refer : https://www.ryzerobotics.com/kr/tello-edu
  - ➢ Specs(soft) : https://www.ryzerobotics.com/kr/tello-edu/specs
  - ➢ Specs(hard) :https://tello.oneoffcoder.com/parts.html#
- ❖ install Tello Edu with Simulator on windows OS
  - ➢ Down : https://appsonwindows.com/download/4233532/74/

Tello with Scratch

- ❖ Refer : https://www.ryzerobotics.com/kr/tello-edu/downloads
  - ➢ https://alfredo-reyes-montero.gitbook.io/tello-dji/frameworks/scratch
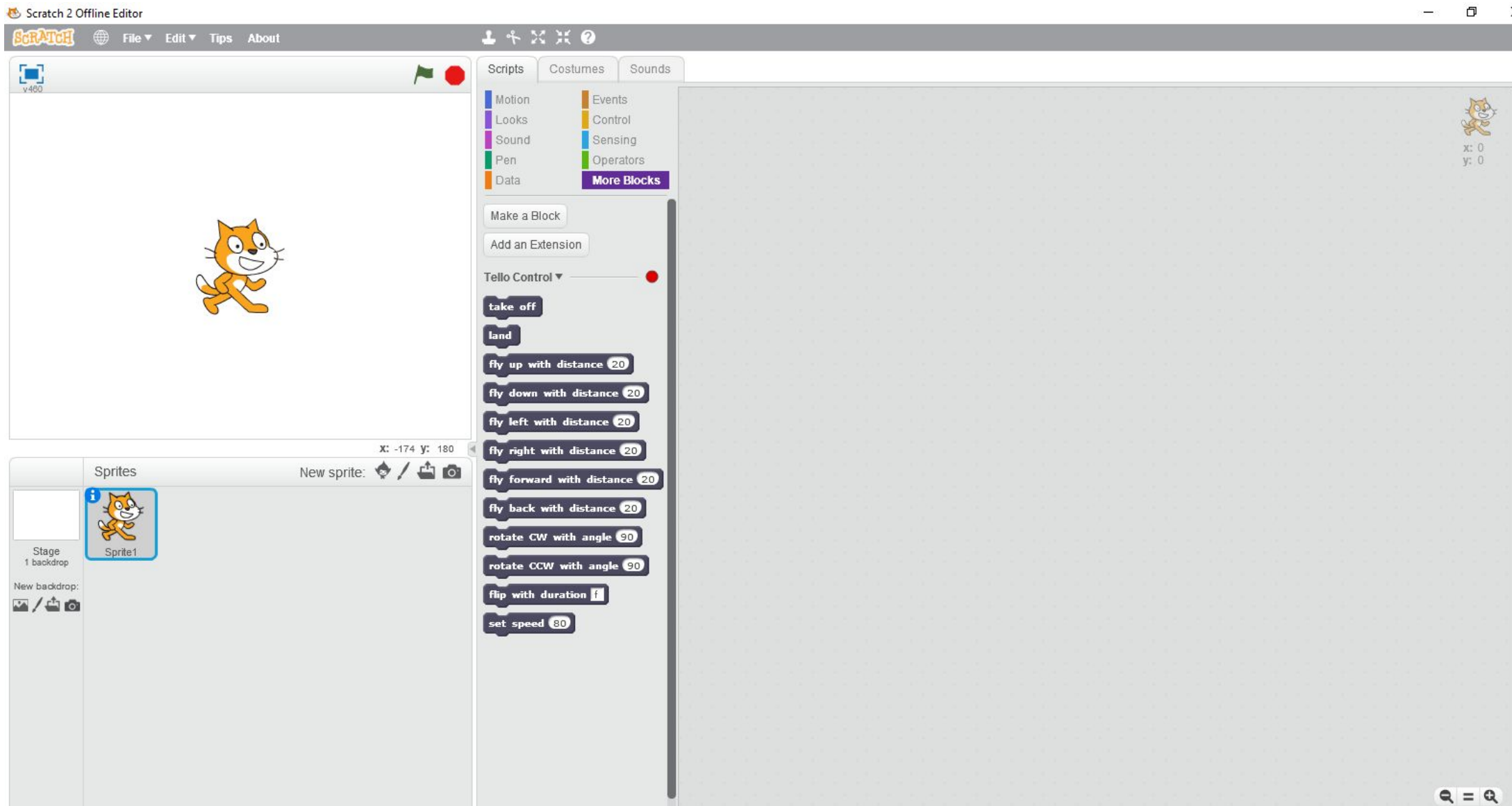
Tello with Packet

- ❖ Refer : [Tello EDU SDK](#)
- ❖ install APP - Packet Sender
- ❖ 해 보기
  - ➢ Turn on Tello
  - ➢ run Packet Sender And then input parameters And then save
    - ■ Name : tello_command
    - ■ ASCII : command
    - ■ HEX : auto generating
    - ■ Address : 192.168.0.1   Port : 8889   Protocol : UDP
  - ➢ Click tello_command And then Change ASCII parameter And send
    - ■ command, battery?, emergency, takeoff, land etc
- ❖ Python, Auto Flight Path : https://tello.oneoffcoder.com/python-auto-flight.html
- ❖ Swarm Programming : https://tello.oneoffcoder.com/swarm.html#

Coding with DJITelloPy

- ❖ Refer : https://djitellopy.readthedocs.io/
  - ➢ API : https://djitellopy.readthedocs.io/en/latest/tello/
- ❖ Source python : https://github.com/damiafuentes/DJITelloPy/tree/master/examples
- ❖ Read Sequence : https://youtu.be/LmEcyQnfpDA
  - ➢ simple.py
  - ➢ manual-control-opencv.py or manual-control-pygame.py
  - ➢ mission-pads.py
  - ➢ take-picture.py
  - ➢ record-video.py
  - ➢ simple-swarm.py
- ❖ with opencv : https://edimoon777.github.io/junghomoon/Tellopy/
- ❖ Tello edu swarm basic#4 curve command
  - ➢ https://youtu.be/89C34JsAKEQ
- ❖ Python Code Flies Tello Drone Around Polygon
  - ➢ https://youtu.be/zNyvbDGcR9E
- ❖ Scratch Programming : https://tello.oneoffcoder.com/scratch.html
  - ➢ https://tello.oneoffcoder.com/blocks.html
  - ➢ https://github.com/kebhr/scratch3-tello

tello with ROS

❖ Refer : http://wiki.ros.org/tello_driver
❖ Tello, ROS 드라이버 연동
  ➢ https://edimoon777.github.io/junghomoon/Tello-ROS/
❖ Drone demo in ROS 2/Gazebo/RVIZ 2
  ➢ with TelloPy : https://alfredo-reyes-montero.gitbook.io/tello-dji/frameworks/ros
  ➢ with Pixhawk : https://github.com/osrf/drone_demo
  ➢ tello_ros is a ROS2 driver : https://github.com/clydemcqueen/tello_ros
  ➢ flock2 can fly a swarm : https://github.com/clydemcqueen/flock2
  ➢ SLAM with Camera : https://github.com/tau-adl/Tello_ROS_ORBSLAM

Advance

❖ Swarm
  ➢ Tello EDU Drone Swarming Tutorial with Packet Sender and Python
    ■ https://youtu.be/cIsddY4SKgA
  ➢ [텔로에듀군집비행]tello edu swarm basic#1 ~ 5
    ■ https://youtu.be/Z0UIuimdi2k
❖ Object Detection
  ➢ Drone-Face-Tracking and openpose
    ■ https://github.com/murtazahassan/Drone-Face-Tracking
  ➢ Using OpenPose with the Tello Drone to make selfies
    ■ https://github.com/geaxgx/tello-openpose
  ➢ Tello Drone | Python OpenCV Object Tracking with Code
    ■ https://youtu.be/vDOkUHNdmKs

수고하셨습니다.

❖ Reference
  ➢