**Scenario: Power Cut**

A storm raged over South West England last night damaging power lines in Bristol. The City is without power meaning that all the vital infrastructure is such as hospitals, emergency services and water treatment plants have had to shut. Bristolians are feeling vulnerable, luckily the UK energy network has a new drone. Can you quickly find the fault in the power line and report back the damage?

***We want you to design the best drone for the job by adding some bio-inspired upgrades!***

Allowances

Weight allowance 5 kg

Power allowance 60 W

Money allowance £500

Things to think about:

* Where is the damage located?
* How bad is the damage, maybe some evidence is required?
* The damaged line needs to be identified and repaired quickly
* Don’t crash into the power lines!
* Don’t go over your budget!

Fill in the table below with your sensor combinations and circle the final choice

|  |  |  |  |
| --- | --- | --- | --- |
| Upgrades | Weight (Kg) | Power (W) | Cost (£) |
| *Example* GPS, IMU, Gripper | 0.5 + 0.5 + 1 = 2 | 5 + 5 + 15 = 25 | 50 + 50 + 100 = 200 |
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Game instructions:

*Fly the drone around the powerlines and hover above the damaged line.*

