Week 5

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By this week

- Slide 1: clear statement of the scenario i) need ii) novelty of your design in comparison to the state of the art iii) impact of the produce

By this week

- Slide 2: Define at least three R categories and create engineering specifications with numbers (with a specific range that fits your application) – create a table.

R category	Engineering specification	values	Solution A	Solution B	Solution C
Reuse for 3 applications require large range of motion ie Watering & cat feed	Range of motion	end effector hinge range Vertical displacement Personalization etc			
Reduce – more payload to reduce the size of the links	Overall payload	Vertical / dynamic /continuous load etc			
Refuse – bandwidth is higher to be effective in …	Bandwidth	motor bandwidth Control bandwidth Feedback speed etc			

By this week

Slide 3: three solution directions (some sketches with the chosen actuator and sensor)

- → show how they are all satisfying the motivation and functionality of the proposed product

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By next week

- Slide 1: Clean scenario – clear need for the function
  - Schematics for the working principles
  - Hardware Design
  - Control strategy
- Slide 2: what will the proposed sustainable functionality be measured?
  - How is it improving the world without the product? – before and after (quantify)
  - What is the prediction of the measurement? (compare)

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By this week

- **Slide 3:"Improvement column"** of the motor + sensor solution based on the design:
  - pick a parameter in the engineering specification
  - Iterate design parameters (size of the pouch / spring constant / link dimensions) to improve the functionality/ engineering specification

Engineering specification	values	Solution A	Solution B	Solution C
Range of motion	90< hinge range <300	200<r<300	90<r<100	40<r<41
Overall payload	10N < load	20N	13N	50N
Bandwidth rpm	100<rpm	200	101	100

By next week

- **Slide 3: "Improvement column"** of the motor + sensor solution based on the design :
  - pick a parameter in the engineering specification
  - Iterate design parameters (size of the pouch / spring constant / link dimensions) to improve the functionality/ engineering specification

Engineering specification	values	Solution A	Solution A - improved
Range of motion	90< hinge range <300	200<r<300	200<r<400
Overall payload	10N < load	20N	30N
Bandwidth rpm	100<rpm	200	200