Study of the folding of the GRIFFIN Project model wing
1. MECHANISMS

Mechanism 1

Mechanism 2
2. MECHANISM 2
3. CHANGES FROM ORIGINAL DESIGN

MECHANISM 2

• Separation of rod L1

• Connecting rods as limits of the positions of the mechanism
3. CHANGES FROM ORIGINAL DESIGN
MECHANISM 2

• Alternative to the plastic threaded zones (external)

• Alternative to the plastic threaded zones (internal)
4. CONNECTION TO MAXPOWER

MECHANISM 2
Each wing can be folded independently when the ornithopter is perching or during flight for any angle of flapping.
1. An engine on a support connected to the bird axis
2. Two supports with connecting rods to hold the rod L1
3. A gear transmission between the engine and the rod L1
5. CURRENT STATE
5. CURRENT STATE
6. FUTURE LINES

Implementation of the fabric
- Problem of the initial option:
  1. Fabric connection doesn’t allow full folding
  2. When the mechanism is extended the fabric isn’t tight
- Solutions:
  1. Modifying the connection between fabric and mechanism
  2. Introduction of threads to tighten the fabric

Connection of the mechanism to MAX POWER
- Checking the behaviour of the gears (ensuring their contact during flapping and folding)
Thanks