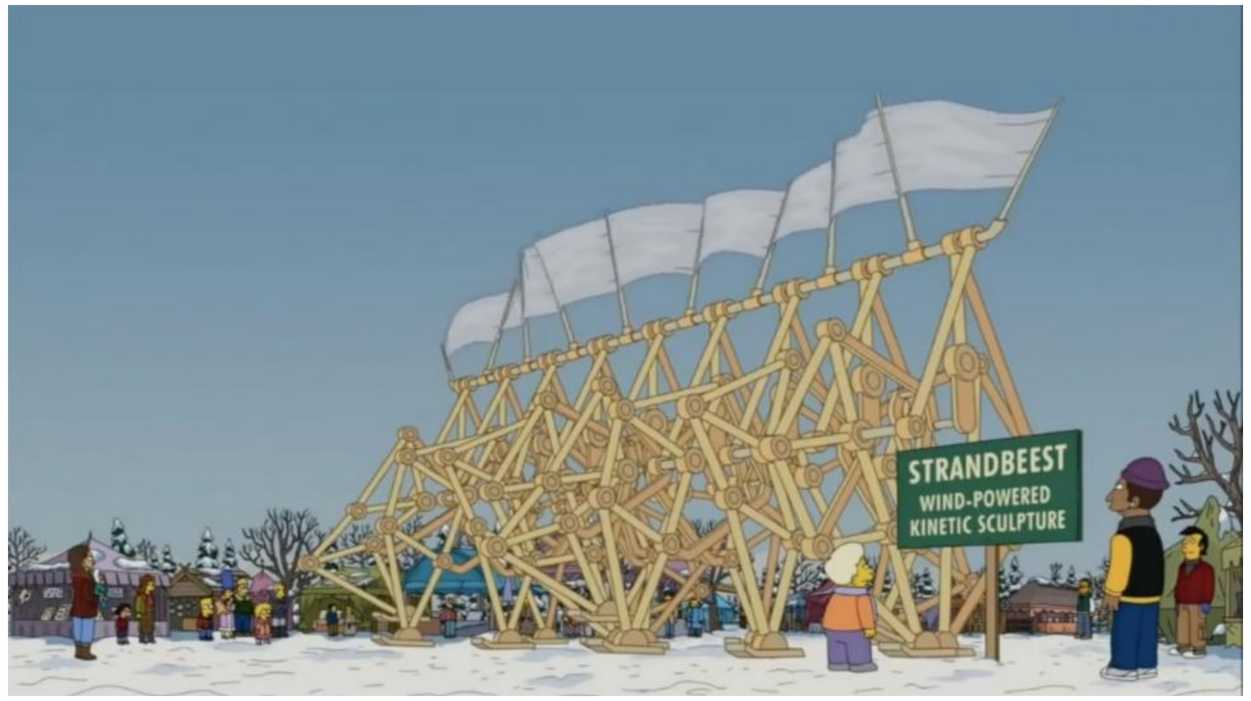
Sunseekers

KISD Dark Ecology, Max & Luiz



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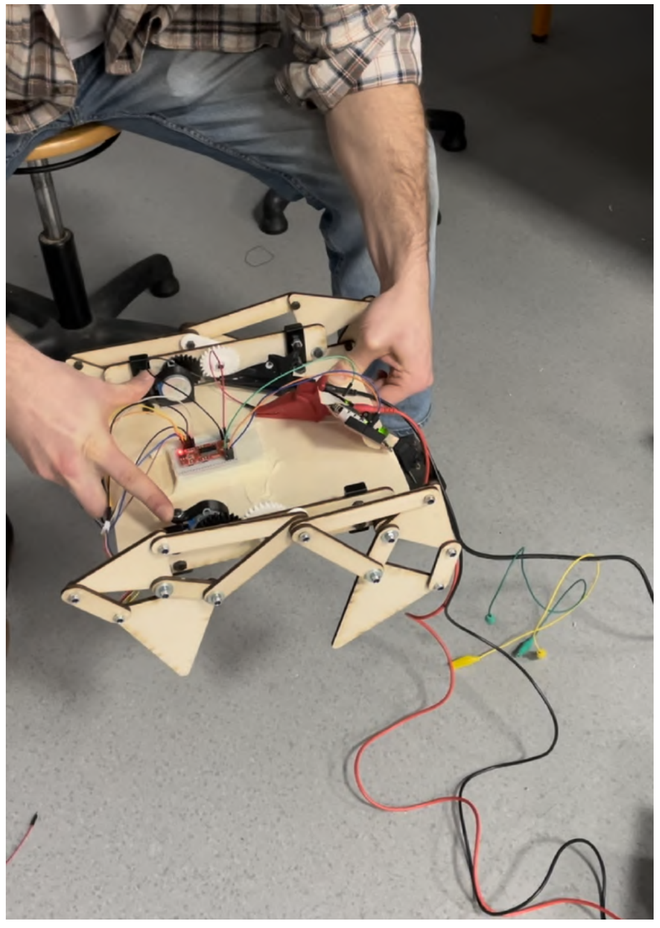
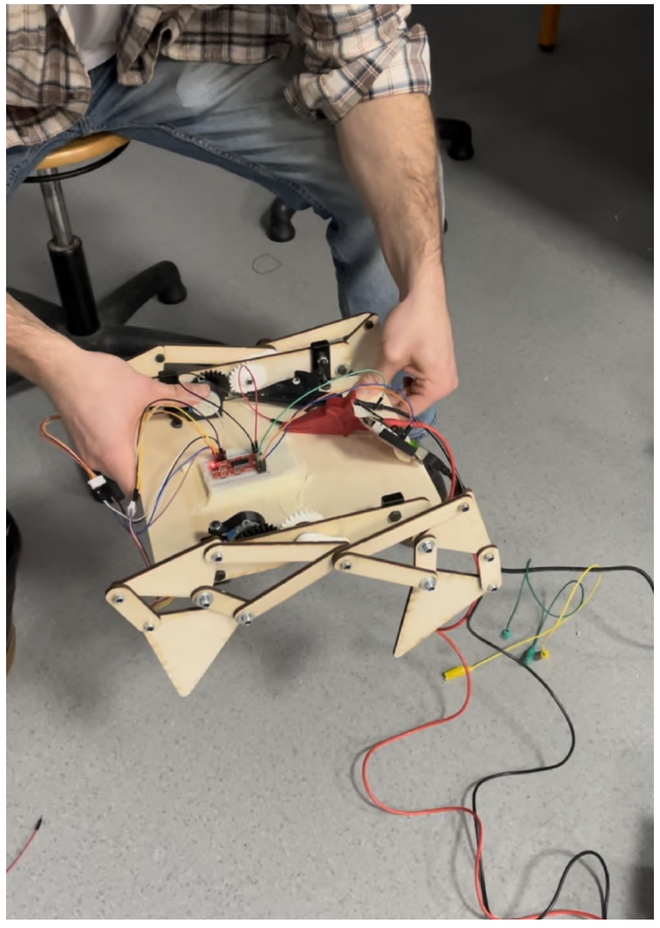
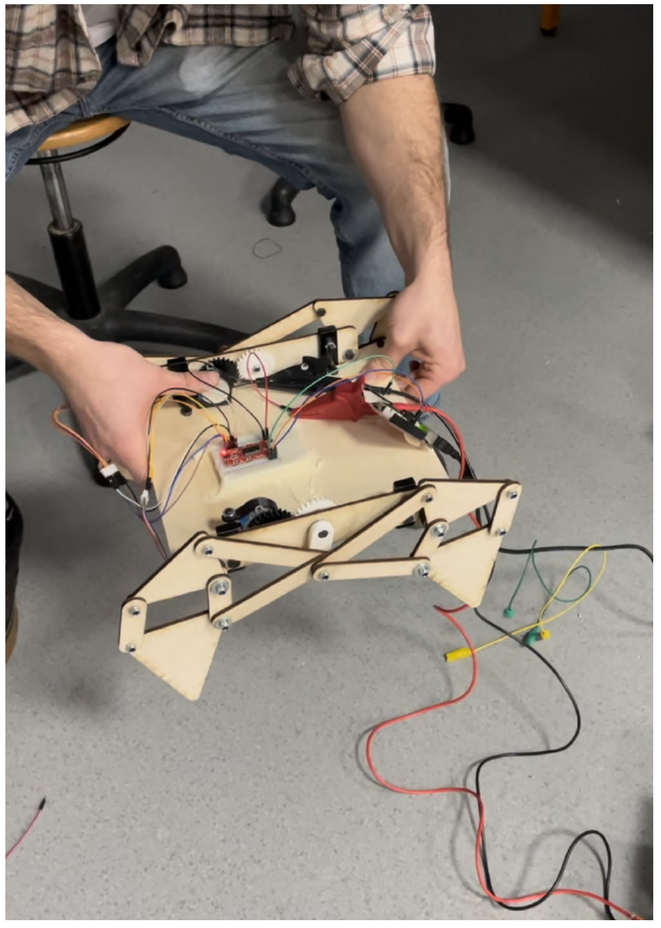
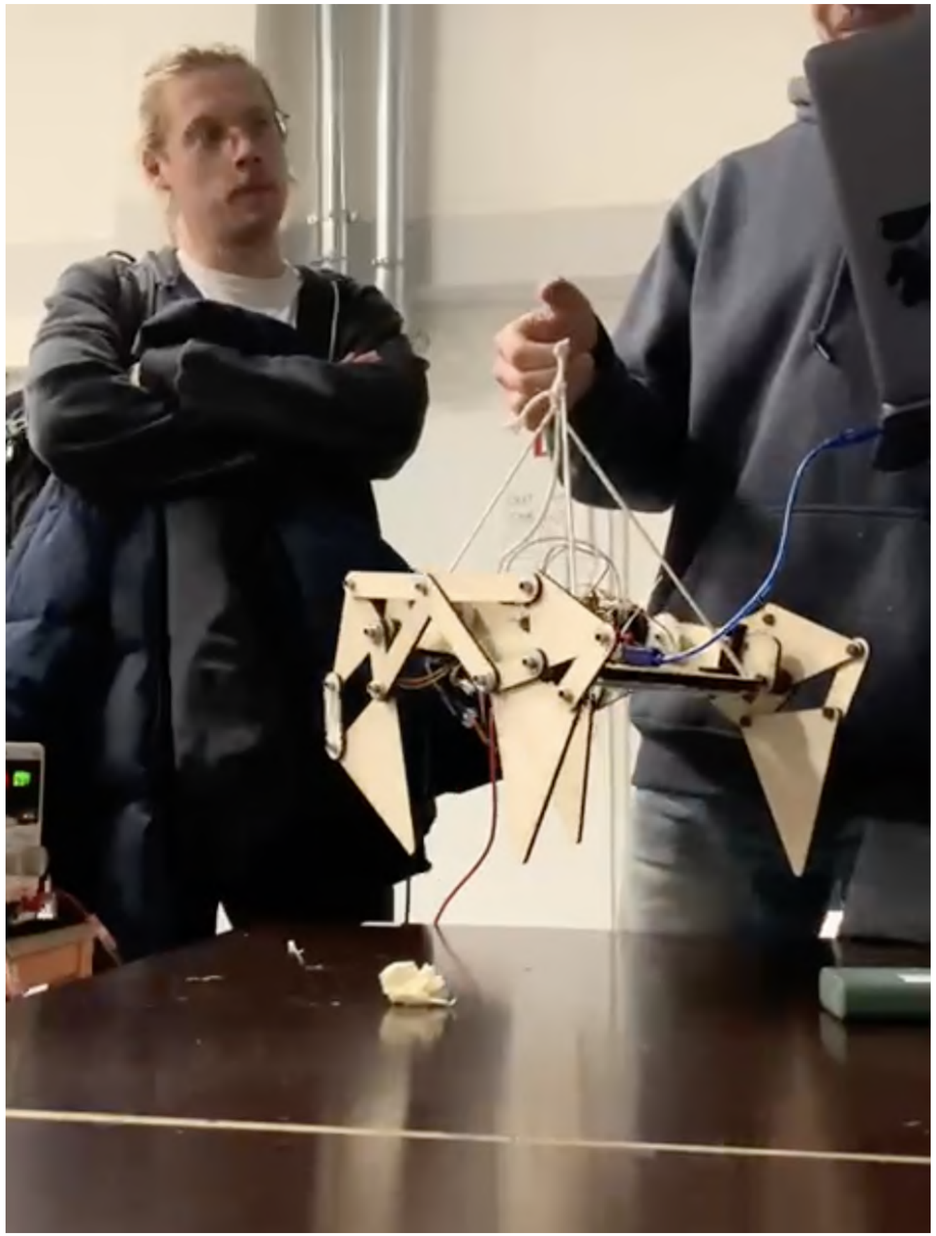
Brandon Mews 14 - 18

Sunseeker shall empower Sunflowers with the ability of moving. I a confined space, either in or outdoor we want to place a multitude of robots, inspired by the likes of Theo Jansen, moving towards the brightest place.
There might be the chance to give each Sunflower a characteristic, such as being explorative or shy. Is there one sunflower leading the pack, as we see it in Bird Migration? Each robot shall have a Theo Janses mechanism, 4 individual legs, in order to navigate the space. On top of these legs shall be a terrarium housing the sunflower. The terrarium allows us to positions sensors, such as a camera, observing the plant. Using machine learning we might than analyse a stream of pictures navigating the plant towards the brightest place.
Experimantation has to be done prior, for us the check wether the sunflower reacts to a change of lighting fast enough. Visitors might oberve or also interact with the pack of plants by changing the given light situation.









Controlable Walker
Sunflower
Camera **monitoring** the Sunflower
Raspberry Pi **analysing Images**
Raspberry Pi **navigating** the Sunflower

Controlable Walker
Sunflower
Lightsensors **monitoring** Environment
Raspberry Pi **calculating** the brightes spot
Raspberry Pi **navigating** the Sunflower

Controlable Walker
Sunflower
Camera **monitoring Environment** - OpenCV
Raspberry Pi **calculating the best** Position
Raspberry Pi **navigating** the Sunflower

Motor Strength

Do we need ML?

Is the sunflower reactive enough?

How do we create interesting interactions?

Can we build multiple sunseekers?

How do we navigate to the brightest spot?