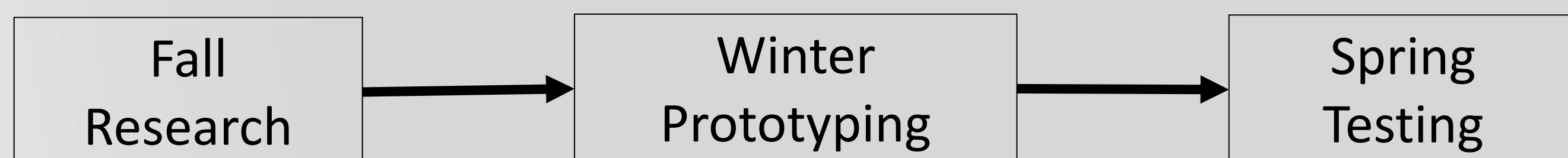
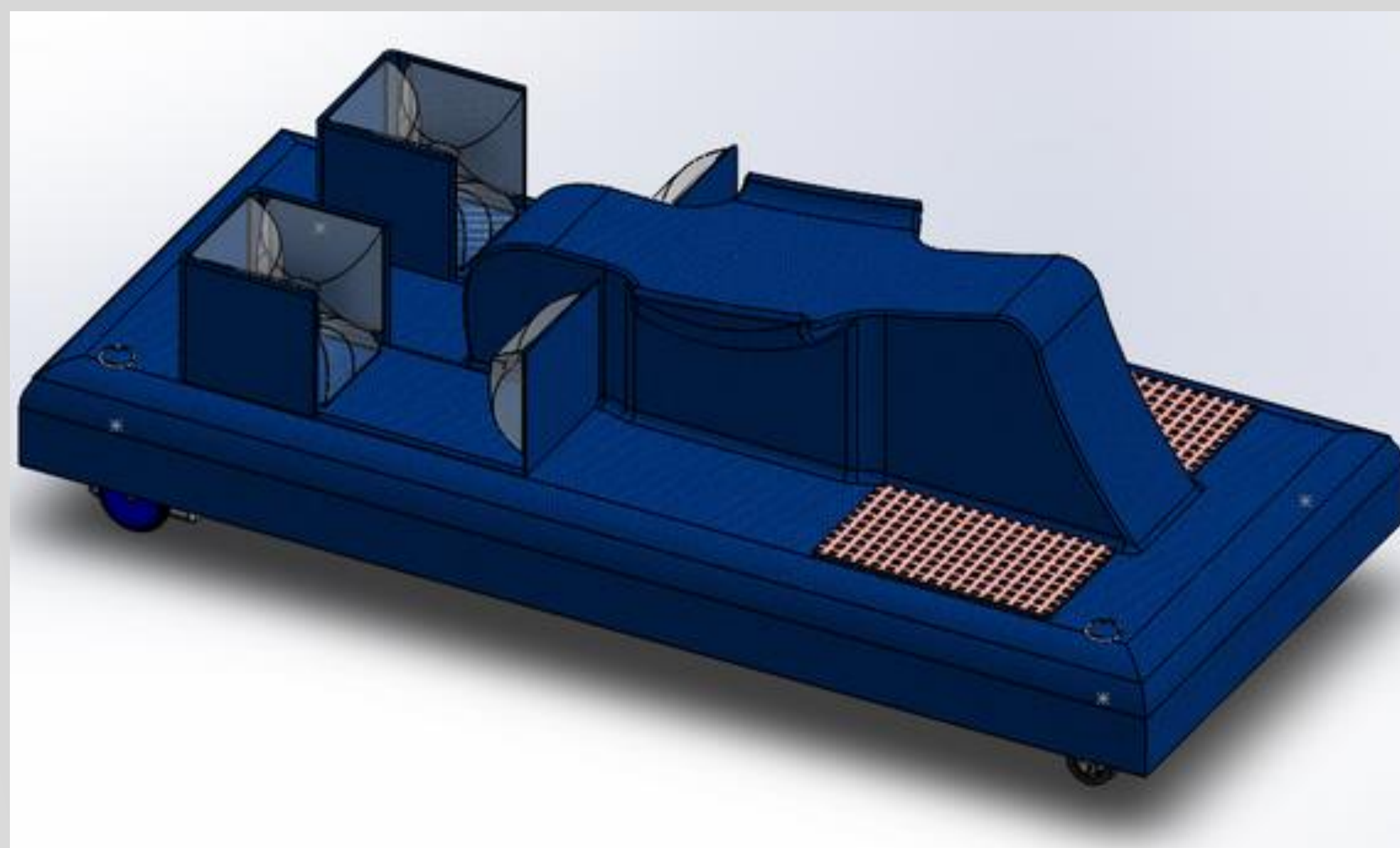


Goal

Enable infants with Cerebral Palsy (CP) to independently explore their environment, while positioned in a simulated crawling position.

Background

- CP impairs the control of movement due to non-progressive and permanent damage to the brain
- 2 out of 1000 children are affected
- Without crawling, a child can develop sensory processing problems
- From crawling, the infant becomes stronger, learns the surroundings, improves visual skills and improves physical abilities.



The Crawler

- Controlled with an Arduino:
 - Inertial Measurement Unit (IMU)
 - Barometric Pressure Sensor
 - Capacitive Touch Sensor
 - DC Motors
- Steering and propulsion from the rear wheels
- Front caster wheels
- Contoured platform for natural crawling position
- Designed around safety for an infant

