



Virtual Prototyping and Physical Validation of an Inverted Pendulum

What we want to achieve

- ★ *Virtual model of the pendulum and its controller in Acumen.*
- ★ *Physical model of inverted pendulum robot*

Critical step toward that goal

- *Mathematical model of the pendulum*
- *Building prototypes*
- *Simulation in Acumen*
- *Develop a controller in Acumen*
- *Communication between Acumen and the real world*

Time plan

- ❖ Week 40 10/3 *First prototype*
- ❖ Week 42 10/17 *Second prototype*
- ❖ Week 44 10/27 *Half-time seminar*
- ❖ Week 44 10/31 *Third prototype*
- ❖ Week 46 11/14 *Fourth prototype*
- ❖ Week 48 11/28 *Fifth prototype*
- ❖ Week 51 12/19 *Final seminar*