

## Project Guidelines

### VGA Game Console

- **Everybody** works **independently**
- Due: **TBD**
- Will correlate your codes  
$$\text{yourScore} = \text{yourRawScore} \times (1 - \text{maxCorrelation})$$
- yourRawScore depends on the **Milestone** reached

## Milestones

---

### ***Milestone 1 (up to 50 pts):***

*Display a **circle** and a handle at  $45^\circ$ .  
One btn controls **x** and other **y**.*

### ***Milestone 2 (up to 75 pts):***

*Control **handle angle** with a 3rd btn:  
 $45^\circ$ ,  $135^\circ$ ,  $225^\circ$ ,  $315^\circ$ .*

### ***Milestone 3 (up to 100 pts):***

*Control **handle angle** at  $2^\circ$  increments.  
Use **LUT**.*

## Bonus Milestones

---

### ***Milestone 4 (up to 120 pts):***

*Btn x controls **speed** along handle.  
Wraps around.*

### ***Milestone 5 (up to 140 pts):***

***Speed shown** with vertical bar in the  
bottom left. Btn y tunes down.*

### ***Milestone 6 (up to 160 pts):***

*Add **reflection**.*

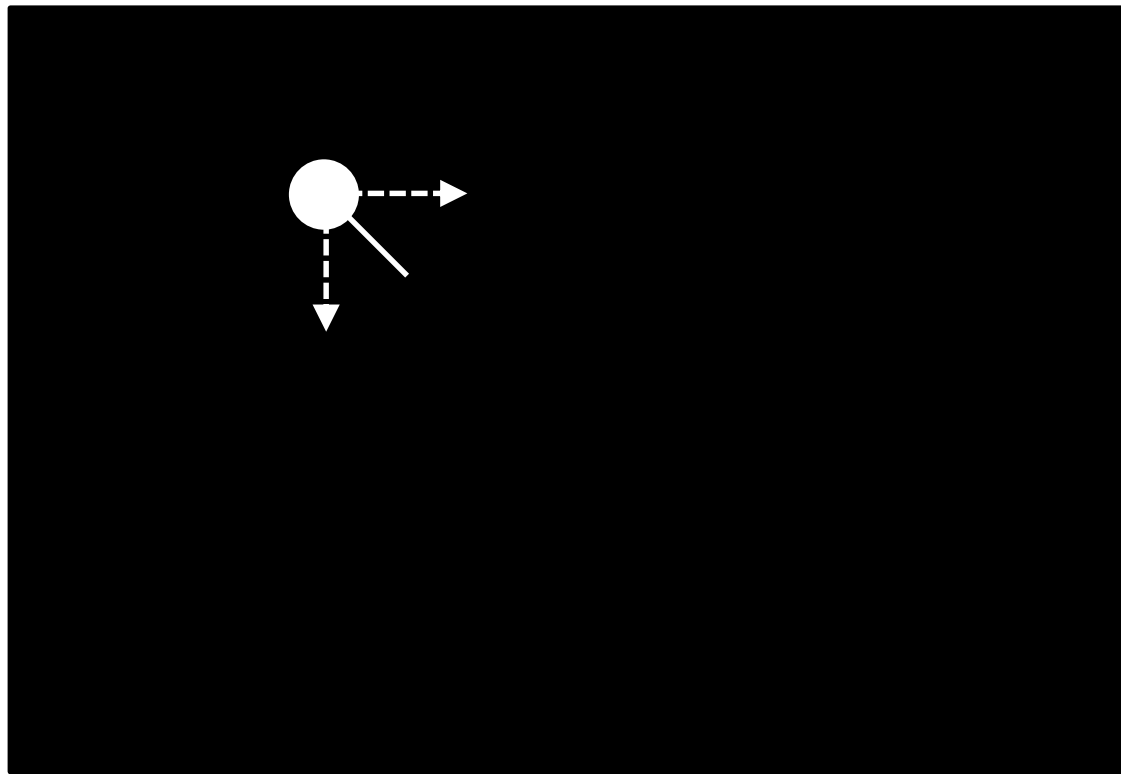
### ***Milestone 7 (up to 190 pts):***

*Turn it into a **projectile**. Blow up a  
**baloon**. 3 btn<sup>s</sup> and 2 sw<sup>s</sup>. Controls: **x**,  
**angle**, throw **speed**. Feel free to  
**surprise me**.*

***Milestone 1 (up to 50 pts):***

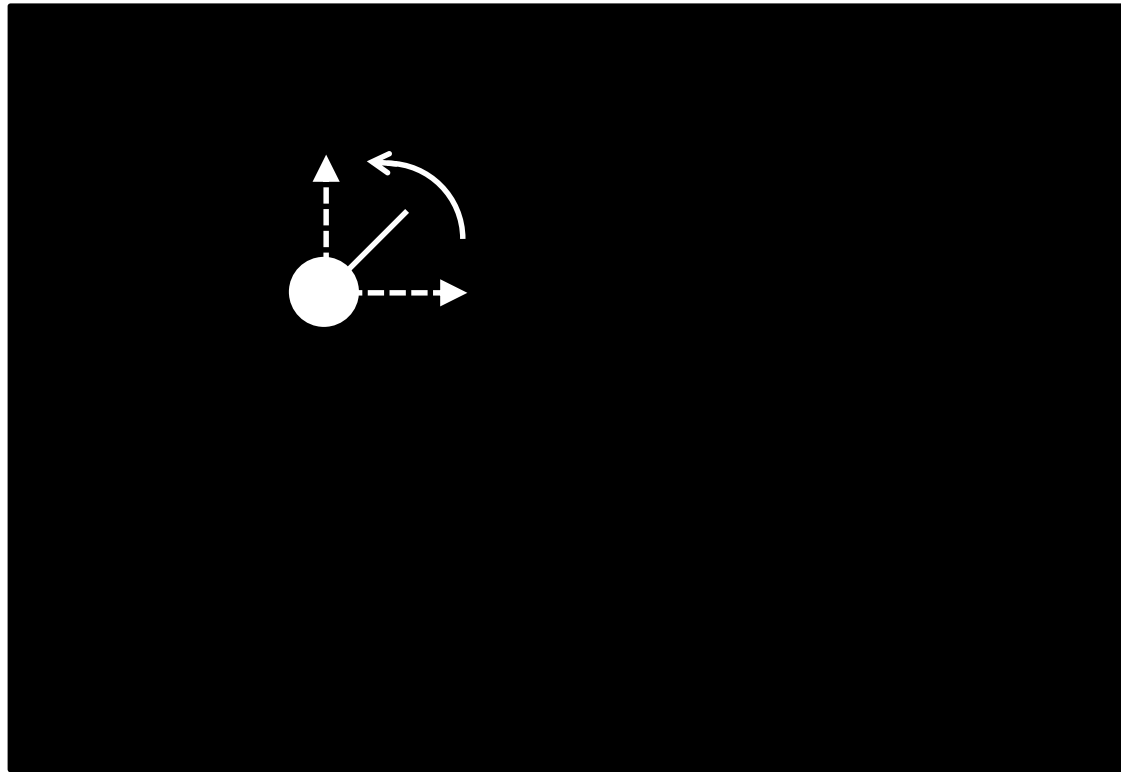
*Display a **circle** and a handle at  $-45^\circ (= 315^\circ)$ .*

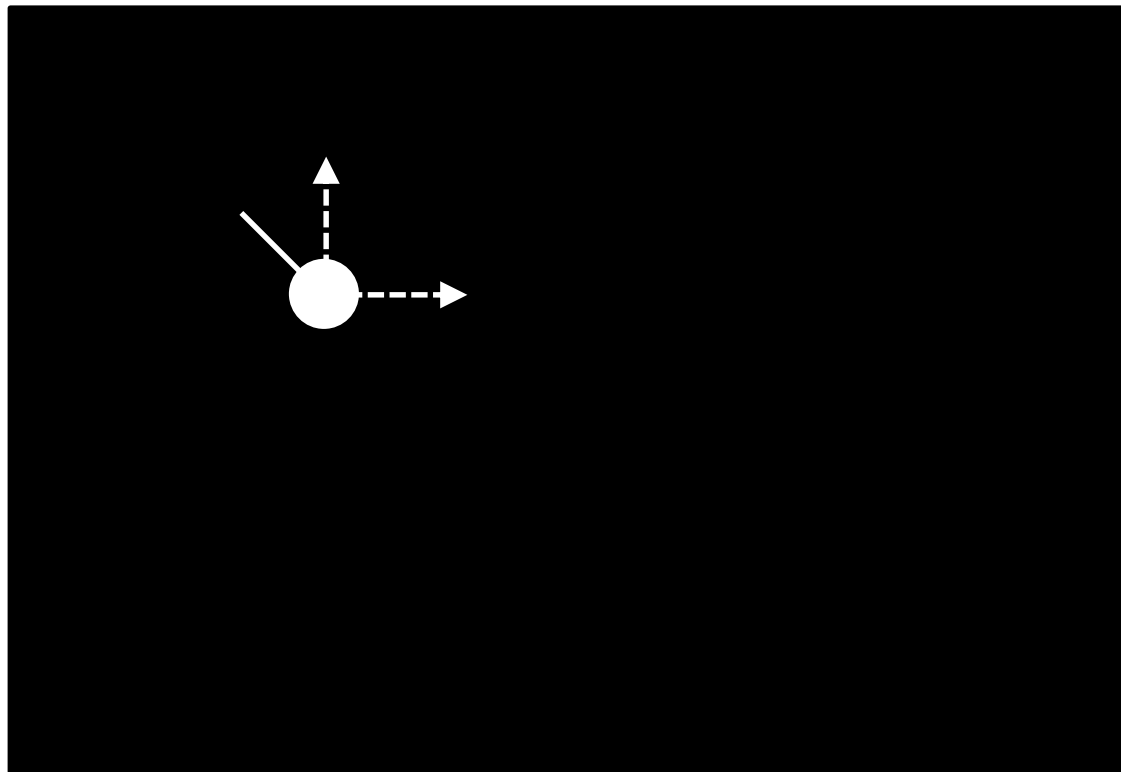
*One btn controls **x** and other **y**.*



***Milestone 2 (up to 75 pts):***

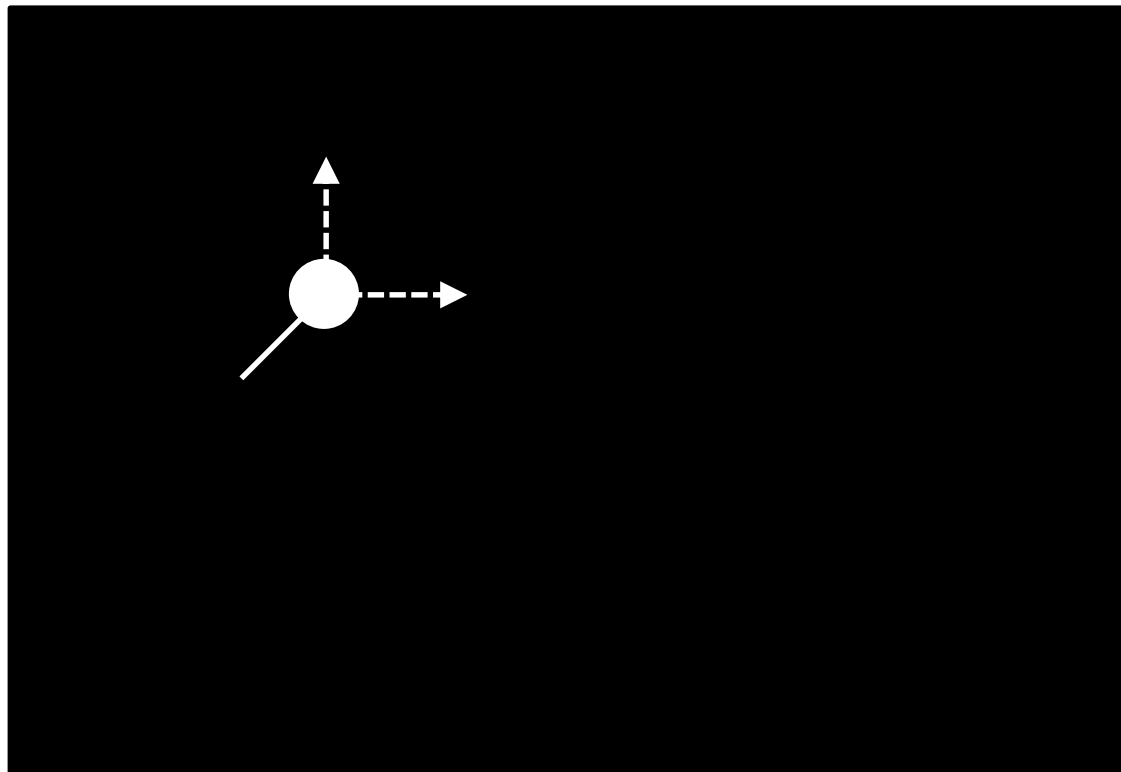
*Control **handle angle** with **y** btn while **x** is constantly pressed:  
315°, 45°, 135°, 225°, 315°, ...*

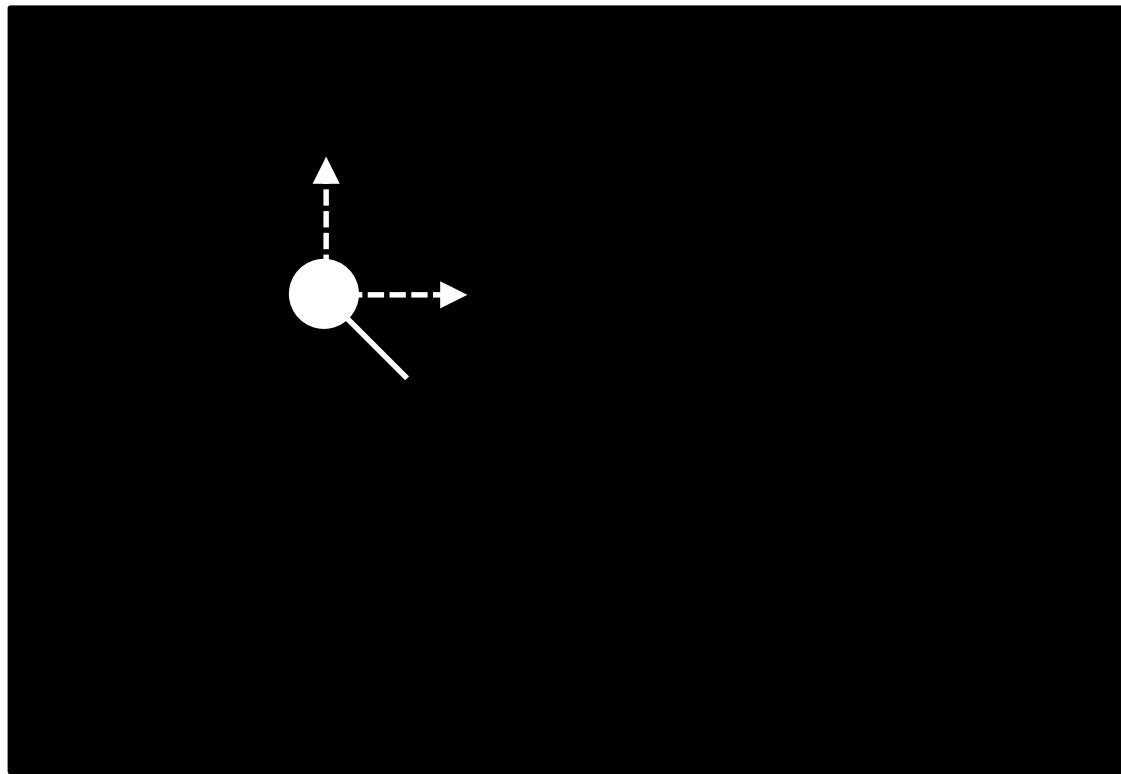


***Milestone 2 (up to 75 pts):******Control handle angle:******135°***

***Milestone 2 (up to 75 pts):***

*Control handle angle:  
 $225^\circ$*

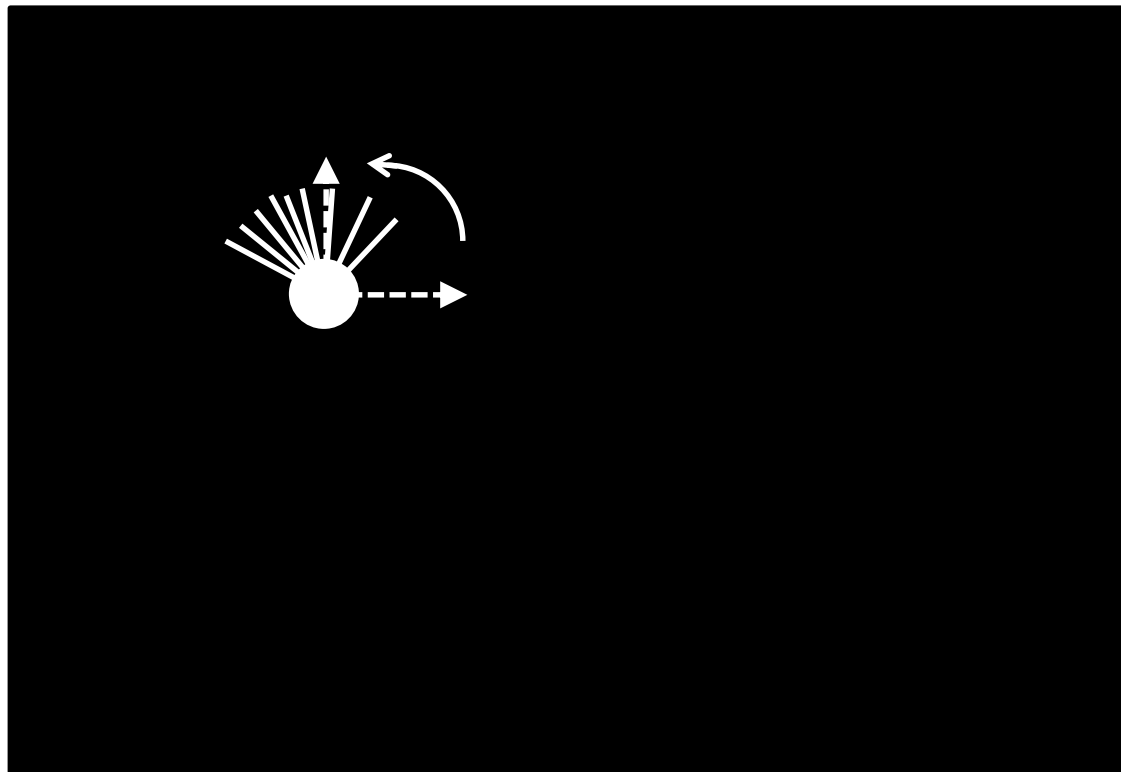


***Milestone 2 (up to 75 pts):****Control handle angle:* $315^\circ$ 



**Milestone 3 (up to 100 pts):**

*Control **handle angle** at  $2^\circ$  increments with **x btn** while **y** is constantly pressed:  
Use **LUT**.*



**Milestone 4 (up to 120 pts):**

*Btn x controls **speed** along handle.*

*Btn y changes direction.*

