



## Making Rotating Arms to Understand

### Imagine a clock

- The hour hand moves slowly.
- The minute hand moves faster.
- The movement of these hands creates different angles between them.

#### Example:

- At 12:00, both hands overlap  $\rightarrow 0^\circ$  (zero angle).
- At 3:00, the hands form a right angle ( $90^\circ$ ).
- At 6:00, they form a straight angle ( $180^\circ$ ).
- At 9:00, another right angle ( $90^\circ$ ) is formed.
- At 12:00 again, the hands complete a full rotation ( $360^\circ$ ).

### Observing Different Angles Using Rotation

Rotation Position	Angle Formed	Example
No rotation (same position)	$0^\circ$ (Zero Angle)	Clock hands at 12:00
Quarter turn	$90^\circ$ (Right Angle)	Clock hands at 3:00
Half turn	$180^\circ$ (Straight Angle)	Clock hands at 6:00
More than half turn	$270^\circ$ (Reflex Angle)	Clock hands at 9:00
Full turn	$360^\circ$ (Complete Angle)	Clock hands at 12:00

#### Examples

##### 1. Opening a Door

- Closed door  $\rightarrow 0^\circ$  (Zero Angle)
- Half-open door  $\rightarrow 90^\circ$  (Right Angle)
- Fully open door  $\rightarrow 180^\circ$  (Straight Angle)

##### 2. Fan Blades Rotating

When the fan rotates completely, it forms a  $360^\circ$  (Complete Angle).